PROJECT MANUAL

APPENDIX A
Existing Hazardous Material Abatement

DEMOLITION
OF
CENTRAL BOOKING FACILITY

PREPARED FOR

Issued for Bid

June 2018

PREPARED BY:

MOTT MACDONALD

220 West Garden Street, Suite 700
Pensacola, FL 32502

PRE AND POST JOB SUBMITTALS

OWNER: ESCAMBIA COUNTY OF FLORIDA/ SAI Project #9705.02
P.O. Box 1591
Pensacola, FL

PROJECT: UNIVERSITY HOSPITAL
1200 West Leonard Street
Pensacola, FL

2060 North Sherman Ave., Panama City, Florida 32405, Telephone: 850/747-0078 Fax: 850/784-0430

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS
1940 N. MONROE ST.
TALLAHASSEE FL 32399

(850) 921-6347

LIVINGSTON, DEBBIE K
AZTEC ENVIRONMENTAL, INC.
2060 N SHERMAN AVE
PANAMA CITY FL 32405

AC# 5098363

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ASBESTOS

DATE	BATCH NUMBER	LICENSE NBR
04/23/1998	97039317	ZA -0000128

The ASBESTOS BUSINESS ORGANIZATION
Named below IS LICENSED
Under the provisions of Chapter 469 FS.
Expiration date: NOV 30, 1999

NON-TRANSFERABLE

AZTEC ENVIRONMENTAL, INC.
DEBBIE K. LIVINGSTON
2060 N. SHERMAN AVENUE
PANAMA CITY FL 32405

LAWTON CHILES
GOVERNOR

DISPLAY AS REQUIRED BY LAW

RICHARD T. FARRELL
SECRETARY

AC# 5083469

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ASBESTOS

DATE	BATCH NUMBER	LICENSE NBR
04/09/1998	97037946	CJ -C056710

The ASBESTOS CONTRACTOR
Named below IS LICENSED
Under the provisions of Chapter 469 FS.
Expiration date: NOV 30, 1998

LIVINGSTON, DEBBIE K
AZTEC ENVIRONMENTAL, INC.
2060 N SHERMAN AVE
PANAMA CITY FL 32405

LAWTON CHILES
GOVERNOR

DISPLAY AS REQUIRED BY LAW

RICHARD T. FARRELL
SECRETARY

State of Florida

Department of State

I certify from the records of this office that AZTEC ENVIRONMENTAL, INC. is a corporation organized under the laws of the State of Florida, filed on August 5, 1993.

The document number of this corporation is P93000054942.

I further certify that said corporation has paid all fees and penalties due this office through December 31, 1998, that its most recent annual report was filed on May 14, 1998, and its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capitol, this the
Eighteenth day of May, 1998

Sandra B. Mortham

Sandra B. Mortham
Secretary of State

CR2EO22 (2-95)

PREVIOUS AND PENDING CLAIMS, CITATIONS, PENALTIES, ETC.

A. A record of any citations Issued by federal, State, or local regulatory agencles relating to asbestos/lead abatement activity. Includes projects, dates and resolutlons.

None

B. A list of penalties incnrred tbrough noncompliance with ashestos/lead ahatement project specifications including liquidated damages, overruns in schedule time limitations, and resolutions.

None

C. Situation in which an asbestos/lead related contract bas been terminated including projects, dates and reasons for termination.

None

D. A listing of any asbestos/lead related legal proceedings/claims in which tbe Contractor (or employees scbeduled to participate in the project) have particlpated or are currently lnvolved. Inclnde descrlptions of role, issue and resolution to date.

None

E. A list of other asbestos/lead abatement companies that current officers of the company have served as officers in the past five year.

None

F. All royalties and patents bave been honored by the Contractor, and the Contractor bolds Owner harmless from any situation arising from negligence of Contractor to honor such fees.

G. No notices of intent to initiate enforcement or settlement agreements such as: Notice of Violation, Notice of Intent to Enforce violation, or Consent Agreements have been nndertaken.

Contractor: AZTEC ENVIRONMENTAL, INC.
By: Debbie K. Livingston Date: 3/10/98

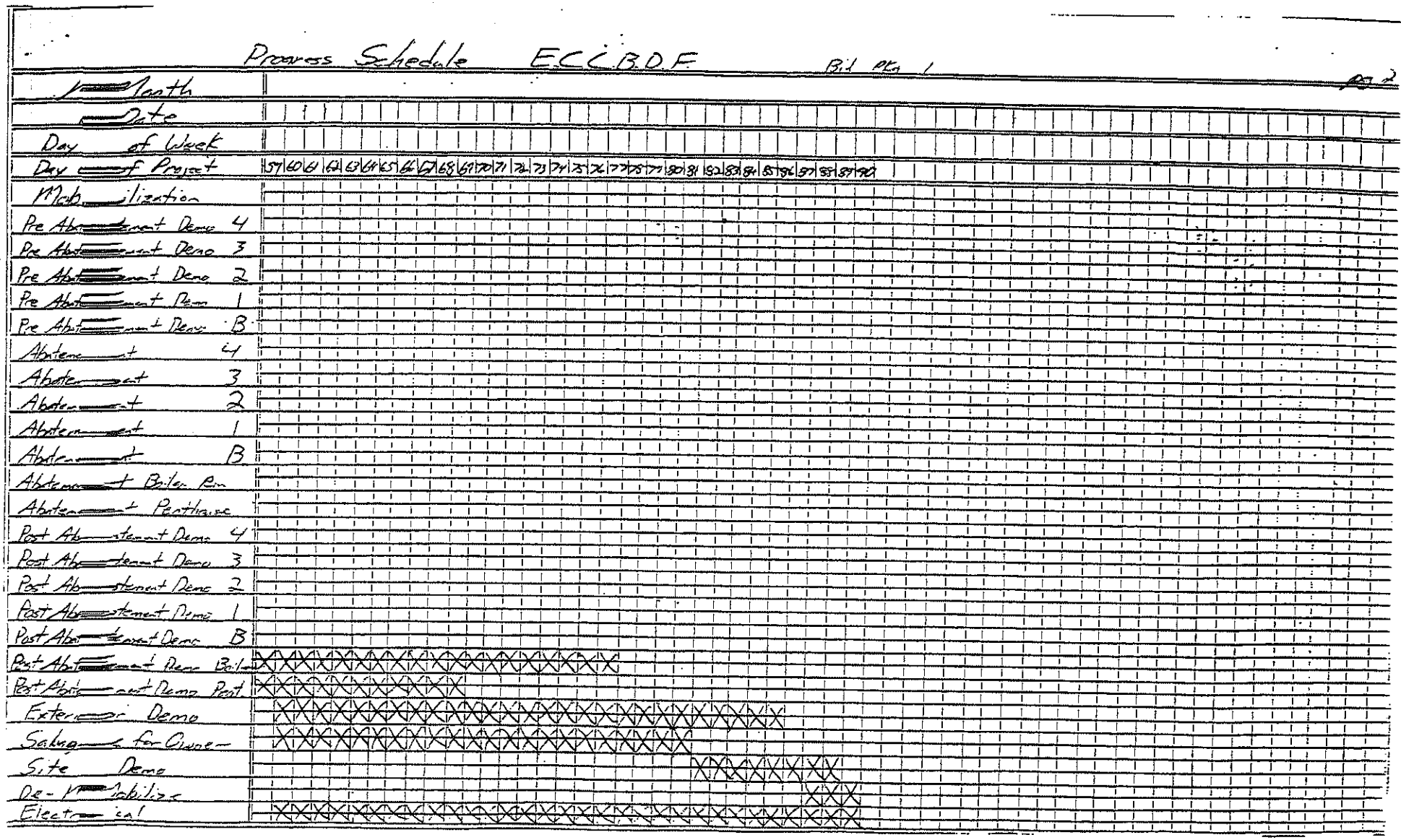
Debbie K. Livingston, President

State of: FLORIDA
County of: BAY
Whom is personally known to me and has subscribed and sworn to before me this 10th day of March, 1998

Notary Public: Donna H. Madaris

My Commission Expires:

DONNA H. MADARIS
MY COMMISSION # CC 436638
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters



Progress Schedule ECCBDF Bid Package 1

3-1-98

Pg 1 of

Month	
Date	
Day of Week	
Day of Project	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
Mobilization	
Pre Abatement Demo 4	
Pre Abatement Demo 3	
Pre Abatement Demo 2	
Pre Abatement Demo 1	
Pre Abatement Demo B	
Abatement 4	
Abatement 3	
Abatement 2	
Abatement 1	
Abatement B	
Abatement Boiler Rm	
Penthouse Abatement	
Post Abatement Demo 4	
Post Abatement Demo 3	
Post Abatement Demo 2	
Post Abatement Demo 1	
Post Abatement Demo B	
Post Abatement Demo Boiler	
Post Abatement Demo Pent.	
Exterior Demo	
Salvage for Owner	
Site Demo	
De-Mobilize	
Electrical	

Negative Air

REMOVAL SCHEDULE		
LEGEND	MATERIAL	APPROX. QUANTITY
(1)	BLACK CHILL WATER PIPE INSULATION COATING	300 lf
(2)	WHITE HOT WATER PIPE INSULATION	10 lf
(3)	FLOOR TILE/ADHESIVE*	800 sf
(4)	FLOOR TILE/ADHESIVE**	10,571 sf
(5)	FLOOR TILE/ADHESIVE***	5,335 SF

REMOVAL SCHEDULE		
LEGEND	MATERIAL	APPROX. QUANTITY
(6)	FLOOR TILE/ADHESIVE****	5,600 sf
(7)	BLACK CEILING ADHESIVE	625 sf
(8)	BLACK SINK UNDERCOATING	1 ea
(11)	EXTERIOR WINDOW CAULK	41 ea
(13)	BUILT-UP ROOFING	20,175 sf

*—SINGLE LAYER OF 12" TILE
**—SINGLE LAYER OF 9" TILE UNDER CARPET
***—SINGLE LAYER OF 9" TILE

****—DOUBLE LAYER OF TILE

PATIO

COURTYARD

COURTYARD

Air

Air

DECON

Negative Air

Fire Exit

Fire Exit

Load Out

Fire Exit

SHEET AA2.1.2 MATCH LINE

1895 Cope Lane
Pensacola, Florida 32526
(850) 941-0743
Fax Number (850) 941-0360

Environmental Geotechnical Construction
Consulting · Engineering · Testing

asbestos abatement documents for
university hospital

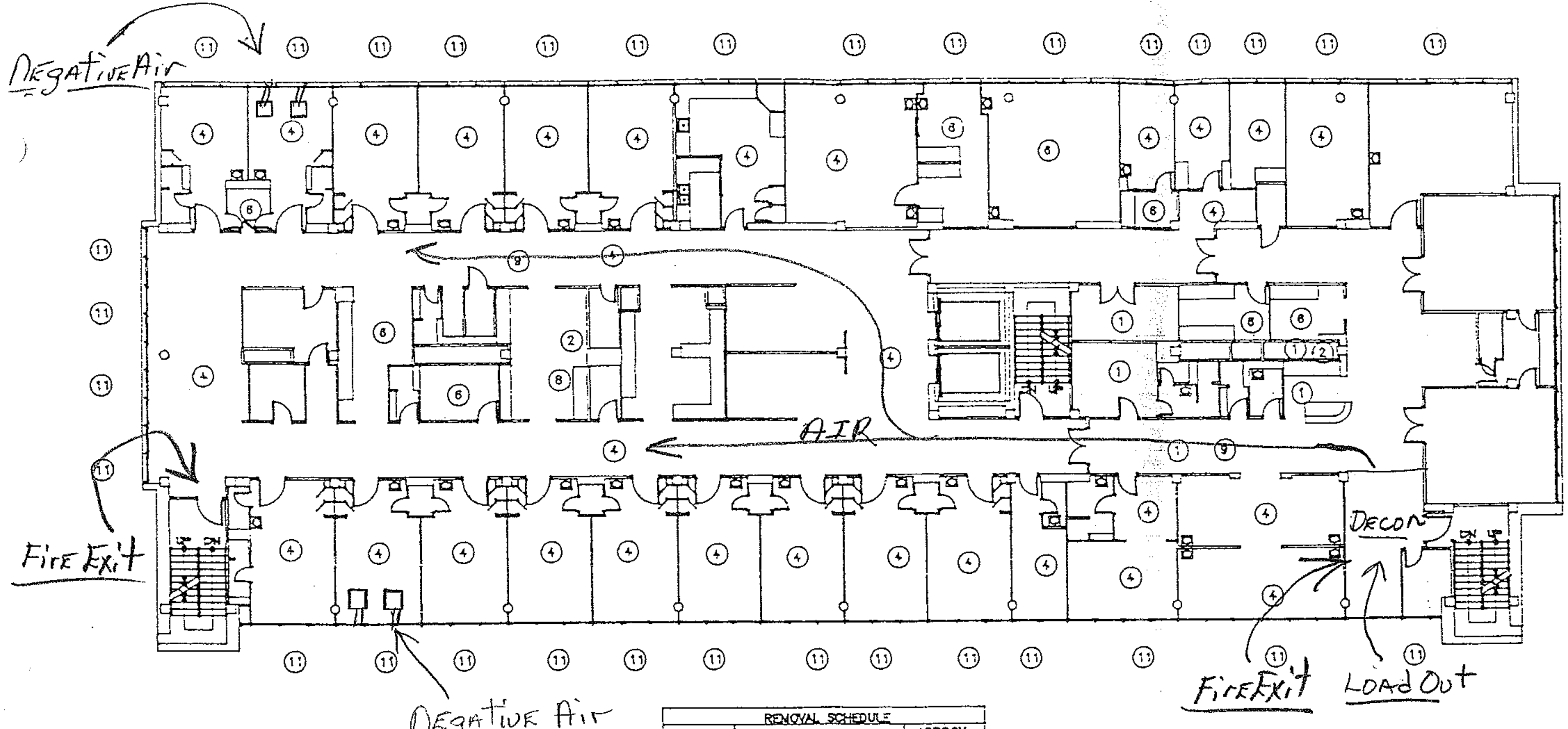
asbestos abatement plan
partial first floor plan

STROLLO/ARCHITECTS INCORPORATED 66 S. IVANHOE BLVD. ORLANDO, FL. 32804 (407)425-6355 (407)425-6984(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CONSTRUCTION SERVICES

revisions:

scale:
drawn:
checked:
date:
project no.:

AA2.



REMOVAL SCHEDULE		
LEGEND	MATERIAL	APPROX. QUANTITY
(1)	BLACK CHILL WATER PIPE INSULATION COATING	130 lf
(2)	WHITE HOT WATER PIPE INSULATION	40 lf
(4)	FLOOR TILE/ADHESIVE*	9,385 sf
(6)	FLOOR TILE/ADHESIVE**	1,083 sf
(8)	BLACK SINK UNDERCOATING	2 ea
(9)	BLACK CHILL WATER PIPE FITTING MASTIC	8 ea
(11)	WINDOW CAULK	100 ea

*—SINGLE LAYER OF 9" TILE UNDER CARPET

**—DOUBLE LAYER OF TILE

psi Environmental Geotechnical Construction
Consulting • Engineering • Testing

STROLLO/ARCHITECTS INCORPORATED 56 E. IVANHOE BLVD. ORLANDO, FL. 32804 (407)423-8355 (407)422-5864(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CONSTRUCTION

project: asbestos abatement documents for university hospital escambia county, florida

sheet title: asbestos abatement plan third floor plan

revisions:

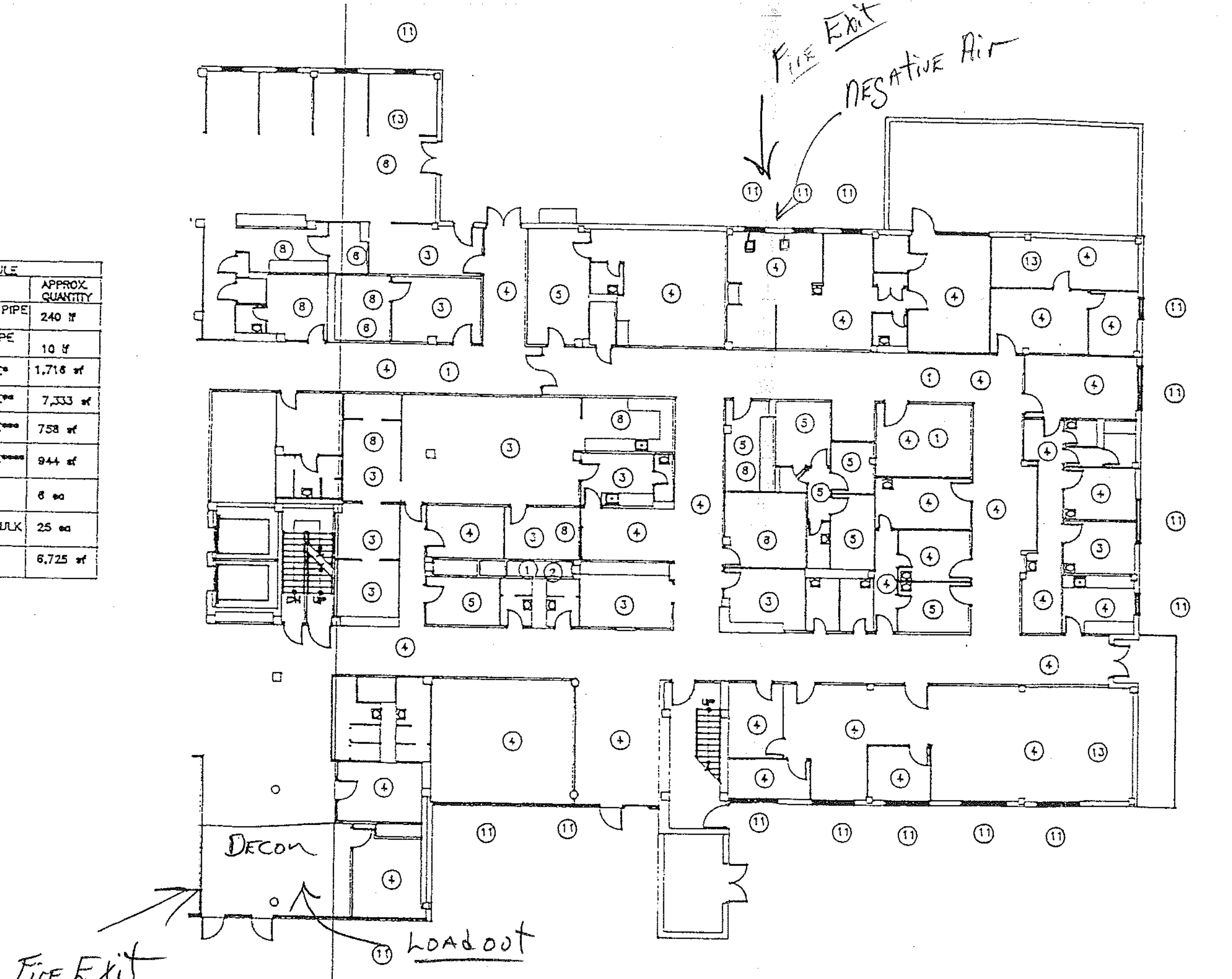
scale:
drawn:
check:
date:
project no.:

AA.2.3.1

REMOVAL SCHEDULE

LEGEND	MATERIAL	APPROX. QUANTITY
(1)	BLACK CHILL WATER PIPE INSULATION COATING	240 lf
(2)	WHITE HOT WATER PIPE INSULATION	10 lf
(3)	FLOOR TILE/ADHESIVE*	1,716 sf
(4)	FLOOR TILE/ADHESIVE**	7,333 sf
(5)	FLOOR TILE/ADHESIVE***	758 sf
(6)	FLOOR TILE/ADHESIVE****	944 sf
(8)	BLACK SINK UNDERCOATING	6 ea
(11)	EXTERIOR WINDOW CAULK	25 ea
(13)	BUILT-UP ROOFING	6,725 sf

*—SINGLE LAYER OF 12" TILE
**—SINGLE LAYER OF 9" TILE UNDER CARPET
***—SINGLE LAYER OF 9" TILE
****—DOUBLE LAYER OF TILE



ARCHITECTS INCORPORATED 65 S. IVANHOE BLVD. ORLANDO, FL 32804 (407)423-5355 (407)423-6664(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CONSTRUCTION SERVICES

PSI Environmental · Geotechnical · Construction · Consulting · Engineering · Testing

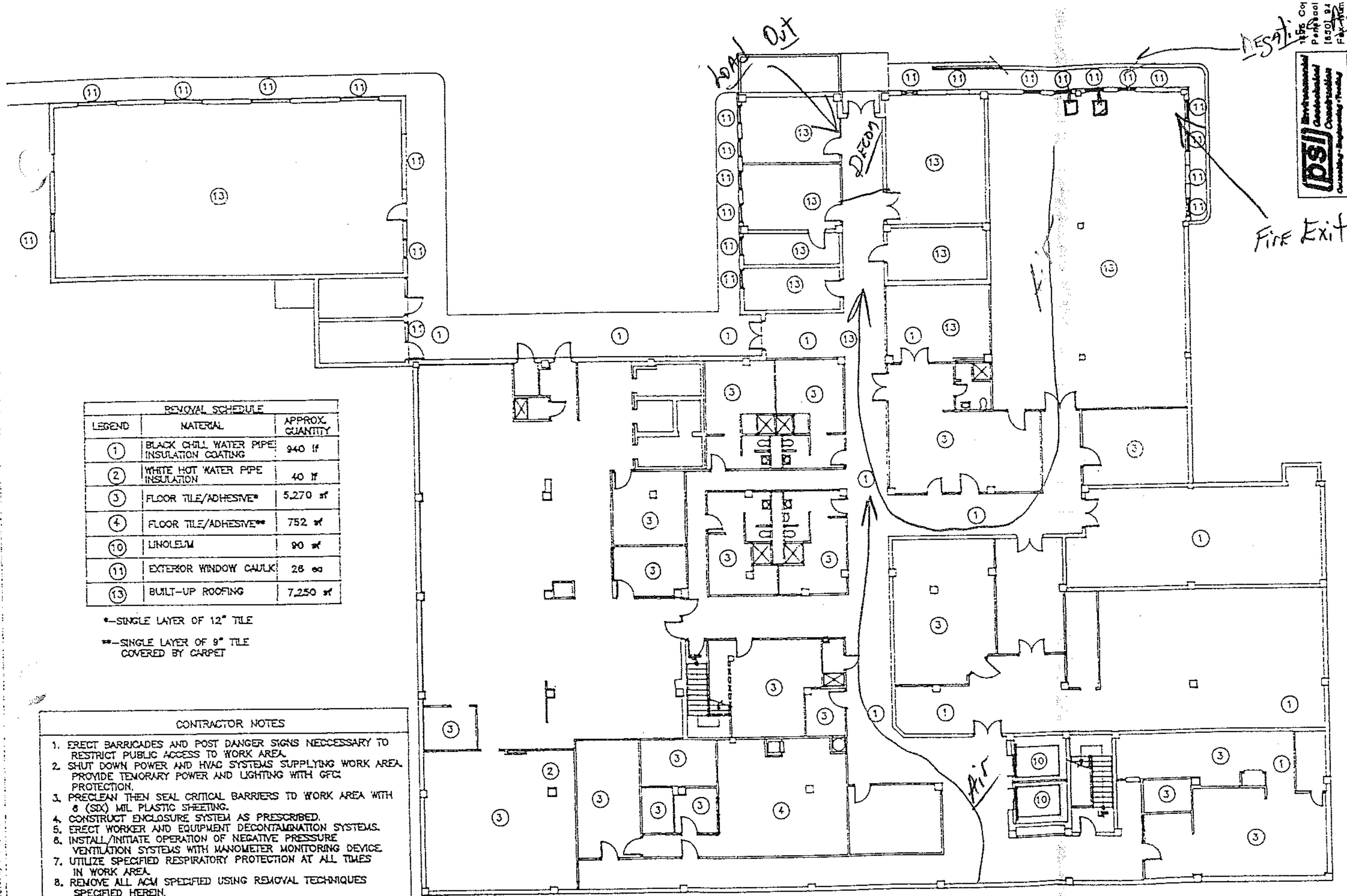
1895 Cope Lane
Pensacola, Florida 3
(850) 941-0743
Fax Number (850) 9

project: asbestos abatement documents for university hospital

sheet title: asbestos abatement plan partial first floor plan

revisions:

scale:
drawn:
check:
date:



REMOVAL SCHEDULE		
LEGEND	MATERIAL	APPROX. QUANTITY
(1)	BLACK CHILL WATER PIPE INSULATION COATING	940 lf
(2)	WHITE HOT WATER PIPE INSULATION	40 lf
(3)	FLOOR TILE/ADHESIVE*	5,270 sf
(4)	FLOOR TILE/ADHESIVE**	752 sf
(10)	LINOLEUM	90 sf
(11)	EXTERIOR WINDOW CAULK	26 ea
(13)	BUILT-UP ROOFING	7,250 sf

*–SINGLE LAYER OF 12" TILE

**–SINGLE LAYER OF 9" TILE COVERED BY CARPET

CONTRACTOR NOTES

1. ERECT BARRICADES AND POST DANGER SIGNS NECCESSARY TO RESTRICT PUBLIC ACCESS TO WORK AREA.
2. SHUT DOWN POWER AND HVAC SYSTEMS SUPPLYING WORK AREA. PROVIDE TEMORARY POWER AND LIGHTING WITH GFCI PROTECTION.
3. PRECLEAN THEN SEAL CRITICAL BARRIERS TO WORK AREA WITH 6 (SIX) MIL PLASTIC SHEETING.
4. CONSTRUCT ENCLOSURE SYSTEM AS PRESCRIBED.
5. ERECT WORKER AND EQUIPMENT DECONTAMINATION SYSTEMS.
6. INSTALL/INITIATE OPERATION OF NEGATIVE PRESSURE VENTILATION SYSTEMS WITH MANOMETER MONITORING DEVICE.
7. UTILIZE SPECIFIED RESPIRATORY PROTECTION AT ALL TIMES IN WORK AREA.
8. REMOVE ALL ACM SPECIFIED USING REMOVAL TECHNIQUES SPECIFIED HEREIN.
9. STORE, TRANSPORT, AND DISPOSE OF BAGGED DEBRIS AS SPECIFIED HEREIN.

STROLLO/ARCHITECTS INCORPORATED 66 S. IVANHOE BLVD. ORLANDO, FL. 32804 (407)423-6658 (407)423-6640(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CONSTRUCTION SERVICES

psi Environmental Geotechnical Construction Consulting • Engineering • Testing
Pensacola
(850)
Fax

project: asbestos abatement documents for university hospital escambia county, florida

sheet title: asbestos abatement plan basement plan

revisions:

scale: 1"=20'-0"
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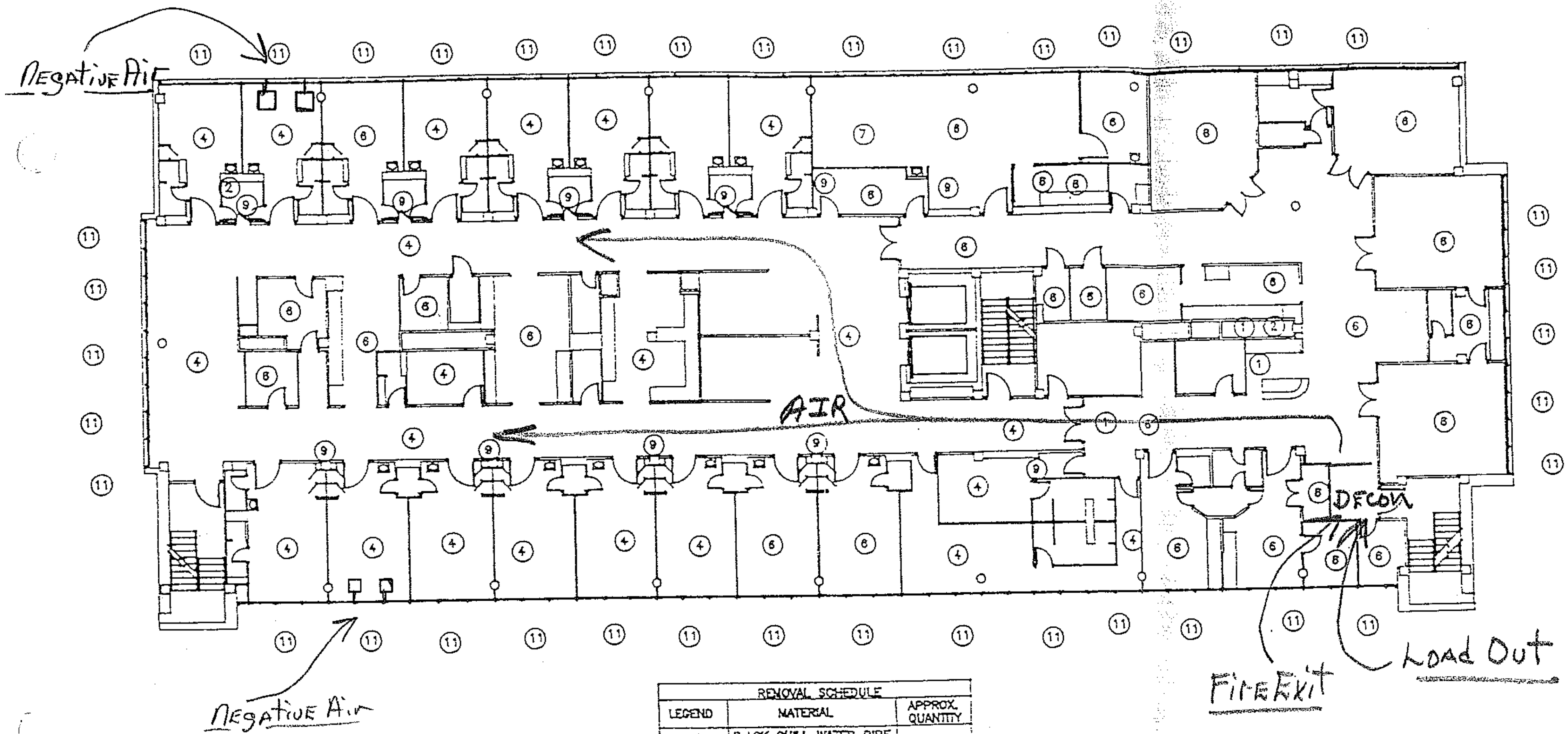
check: [illegible]
date: [illegible]
project no. [illegible]

AA2.0.1



REMOVAL SCHEDULE		
LEGEND	MATERIAL	APPROX. QUANTITY
(1)	BLACK CHILL WATER PIPE INSULATION COATING	90 lf
(2)	WHITE HOT WATER PIPE INSULATION	30 lf
(4)	FLOOR TILE/ADHESIVE*	6,665 sf
(6)	FLOOR TILE/ADHESIVE**	6,027 sf
(7)	BLACK CEILING ADHESIVE	240 sf
(8)	BLACK SINK UNDERCOATING	2 ea
(9)	BLACK CHILL WATER PIPE FITTING MASTIC	24 ea
(11)	EXTERIOR WINDOW CAULK	101 ea

*—SINGLE LAYER OF 9" TILE UNDER CARPET
**—DOUBLE LAYER OF TILE

STROLLO/ARCHITECTS INCORPORATED 68 E. IVANHOE BLVD. ORLANDO, FL 32804 (407)425-6356 (407)425-6964(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CO.

project:
asbestos abatement docum
university hospital
escambia county, flor

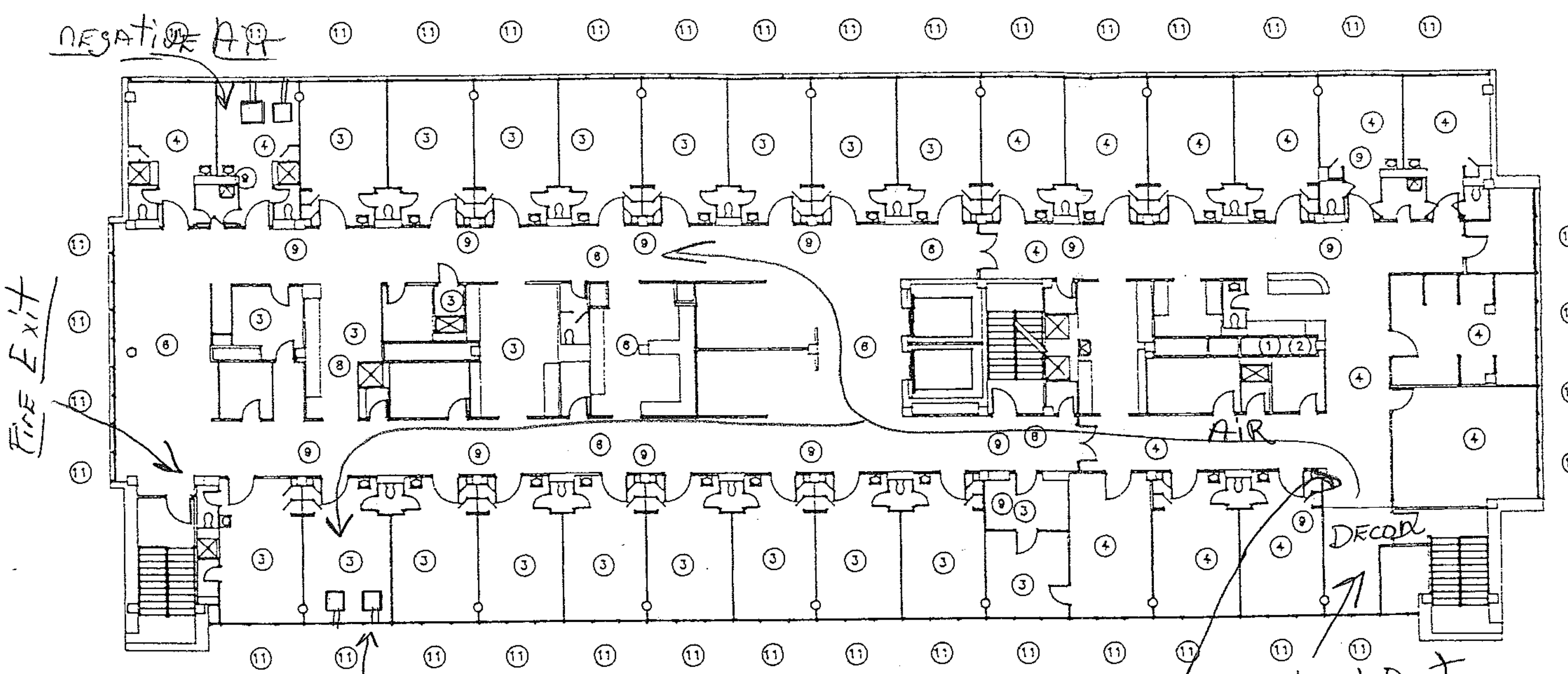
sheet title:
asbestos abatement plan
second floor plan

revisions:

scale:
drawn:
checked:
date:
project no.

AA2.2.1

Phase I



LEGEND	MATERIAL	APPROX. QUANTITY
REMOVAL SCHEDULE		
(1)	BLACK CHILL WATER PIPE INSULATION COATING	80 lf
(2)	WHITE HOT WATER PIPE INSULATION	80 lf
(3)	FLOOR TILE/ADHESIVE*	4,400 sf
(4)	FLOOR TILE/ADHESIVE**	5,900 sf
(6)	FLOOR TILE/ADHESIVE***	2,850 sf
(8)	BLACK SINK UNDERCOATING	2 ea
(9)	BLACK CHILL WATER PIPE FITTING MASTIC	76 ea
(11)	EXTERIOR WINDOW CAULK	100 ea

*—SINGLE LAYER OF 12" TILE

**—SINGLE LAYER OF 9" TILE COVERED BY CARPET

***—DOUBLE LAYER OF TILE

STROLLO/ARCHITECTS INCORPORATED 88 S. IVANHOE BLVD. ORLANDO, FL 32804 (407)423-0385 (407)423-0043(FAX) ARCHITECTURE PLANNING INTERIOR DESIGN CONSTRUCTION SE

PSI Environmental Geotechnical Construction Consulting • Engineering • Testing

project: asbestos abatement documents for university hospital escambia county, florida

sheet title: asbestos abatement plan fourth floor plan

revisions:

scale: drawn: checked: date: project no.

AA2.4.1

Florida Department of
Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form 62-257.900(1)
11/30/94
Page 1 of 2

NOTICE OF ASBESTOS REMOVAL PROJECT

TYPE OF NOTICE: [XX] Original [ ] Revised [ ] Cancelled [ ] Demolition

I. Facility Name UNIVERSITY HOSPITAL
Address 1200 West Leonard Street
City Pensacola, State FL County Escambia
Site Same Surveyed by PSI
Building Size N/A (Square Feet) # of Floors N/A (4) Age in Years N/A Prior Use Hospital

II. Fee Receipt Will Be Sent to Address in Block Below: (Print or Type)

AZTEC ENVIRONMENTAL, INC.
2060 N. Sherman Ave.
Panama City, FL 32405

OWNER PROJECT NUMBER
Fee Check Number
Other

III. Facility Owner ESCAMBIA COUNTY, FLORIDA Phone ( ) N/A
Address P.O. Box 1591
City Pensacola State FL 32595 Zip

Fold Line

IV. Contractor's Name AZTEC ENVIRONMENTAL, INC.
Address: 2060 North Sherman Ave.
City: Panama City State FL Zip: 32405
Phone (850) 747-0078 Florida License No.: CJ C046251/Za-0000128

V. DEMOLITION [ ] REMOVAL [XX] DEMOLITION WITH NO ACM [ ] Emergency [ ] Annual [ ]

Removal: Start Date	Finish Date	Demolition: Start Date	Finish Date
3/19/98	5/19/98		

VI. REMOVAL/DEMOLITION PROCEDURES TO BE USED

XX	Strip & Removal		Glove Bag		Bulldozer		Wrecking Ball
XX	Wet Method		*Dry Method		Explode		Burn Down

*MUST OBTAIN PRIOR DEP APPROVAL BEFORE USING A DRY METHOD!

VII. Waste Disposal Site Name Santa Rosa Landfill Class 9
Address 6075 Old Bagdad Hwy. City Milton, State FL

VIII. Fee Calculation & Type of RACM in Renovations or ACM in Demolitions

		RACM? (circle Yes or No)
	Square Feet Surfacing Material	Yes ... No
190	Linear Feet Pipe	Yes XX No
	Square Feet Cementitious Material	Yes ... No
76,386	Square Feet Resilient Flooring	Yes ... No XX
1,960	~~Square~~ Linear Feet Asphalt ~~Roofing~~ Coating	Yes ... No XX
190	Total RACM (square + linear feet)	
$ N/C	Enclosed (See Fee Schedule) [ ] Check if Demolition Only	

IX. Asbestos Waste Transporter
Name Aztec Environmental, Inc.
Phone (850) 747-0078

X. Procedures for Unexpected RACM
See Attached

I certify that the above information is correct.

Debbie K Leyton
(Signature of Owner/Operator)

3/6/98
(Date)

DEP USE ONLY

Postmark	NESHAP . . . Yes . . . No . . .	002278-
Fee Received $	APIS #	Date Received

ATTACHMENT "B"

In the event unexpected ACM is found on the job site , the following events will transpire:

1. Alert the consultant that potential friable material has been found.

2. Counsultant alerts owner of the presence of the material.

3. PLM tests are ran to verify the material is ACM.

4. Decision is made whether or not to address the material.

5. If material is addressed, a change order is authorized.

6. If change order is approved, the abatement proceeds under the same specifications as the base contract.

AZTEC
ENVIRONMENTAL INC

March 20, 1998

BAPTIST HOSPITAL
1000 W. Marino Street
Pensacola, FL

Re: ASBESTOS ABATEMENT
UNIVERSITY HOSPITAL
1200 West Leonard Street
Pensacola, Florida

Dear Sir:

Please be advised that our Company has been awarded a contract for asbestos abatement at the above referenced building(s); we are planning to start work on/around 3/19/98 , completion is scheduled for approximately 5/19/98

In case of an emergency in which we would have to call your agency, please be advised possible risk to the health of your personnel should they come in contact with asbestos fibers. We recommend that if the assistance of your department is required during the process of removal, that you instruct your employees not to act before receiving instructions from our supervisory personnel. They may need to follow protective procedures and use special equipment before they go into the buildings. Personal protection equipment will be available in case of an emergency.

If you have any questions, please do not hesitate to contact me, but no further contact is necessary.

Sincerely,

Debbie K. Livingston

Debbie K. Livingston, President
Aztec Environmental, Inc.

DL/dm

2060 No. Sherman Ave., Panama City, FL 32405 TEL: 850/747-0078 FAX: 850/784-0430 E-Mail: Aztec@BellSouth.net

AZTEC
ENVIRONMENTAL INC

March 6, 1998

ESCAMBIA COUNTY SHERIEF'S DEPT.
1770 W. Leonard St.
Pensacola, FL 32523

Re: ASBESTOS AND LEAD ABATEMENT
UNIVERSITY HOSPITAL
1200 West Leonard Street
Pensacola, Florida

Dear Sir:

Please be advised that our Company has been awarded a contract for asbestos abatement at the above referenced building(s), we are planning to start work on/around 3/19/98 , completion is scheduled for approximately 5/19/98 .

In case of an emergency in which we would have to call your agency, please be advised possible risk to the health of your personnel should they come in contact with asbestos fibers. We recommend that if the assistance of your department is required during the process of removal, that you instruct your employees not to act before receiving instructions from our supervisory personnel. They may need to follow protective procedures and use special equipment before they go into the buildings. Personal protection equipment will be available in case of an emergency.

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Sincerely,

Debbie K. Livingston

Debbie K. Livingston, President
Aztec Environmental, Inc.

DL/dm

2060 No. Sherman Ave., Panama City, FL 32405 TEL: 850/747-0078 FAX: 850/784-0430 E-Mail: Aztec@BellSouth.net

AZTEC
ENVIRONMENTAL INC

March 6, 1998

WEST FLORIDA HOSPITAL
8383 N. Davis Hwy.
Pensacola, FL

Re: ASBESTOS AND LEAD ABATEMENT
UNIVERSITY HOSPITAL
1200 West Leonard Street
Pensacola, Florida

Dear Sir:

Please be advised that our Company has been awarded a contract for asbestos abatement at the above referenced building(s); we are planning to start work on/around 3/19/98 , completion is scheduled for approximately 5/19/98 .

In case of an emergency in which we would have to call your agency, please be advised possible risk to the health of your personnel should they come in contact with asbestos fibers. We recommend that if the assistance of your department is required during the process of removal, that you instruct your employees not to act before receiving instructions from our supervisory personnel. They may need to follow protective procedures and use special equipment before they go into the buildings. Personal protection equipment will be available in case of an emergency.

If you have any questions, please do not hesitate to contact me, but no further contact is necessary.

Sincerely,

Debbie K. Livingston

Debbie K. Livingston, President
Aztec Environmental, Inc.

DL/dm

2060 No. Sherman Ave., Panama City, FL 32405 TEL: 850/747-0078 FAX: 850/784-0430 E-Mail: Aztec@BellSouth.net

AZTEC
ENVIRONMENTAL INC

March 6, 1998

CANTONMENT VOLUNTEER FIRE DIST. 08
2 Woodland Ave.
Cantonment, FL 32533

Re: ASBESTOS AND LEAD ABATEMENT
UNIVERSITY HOSPITAL
1200 West Leonard Street
Pensacola, Florida

Dear Sir:

Please be advised that our Company has been awarded a contract for asbestos abatement at the above referenced building(s); we are planning to start work on/around 3/19/98, completion is scheduled for approximately 5/19/98.

In case of an emergency in which we would have to call your agency, please be advised possible risk to the health of your personnel should they come in contact with asbestos fibers. We recommend that if the assistance of your department is required during the process of removal, that you instruct your employees not to act before receiving instructions from our supervisory personnel. They may need to follow protective procedures and use special equipment before they go into the buildings. Personal protection equipment will be available in case of an emergency.

If you have any questions, please do not hesitate to contact me, but no further contact is necessary.

Sincerely,

Debbie K. Livingston

Debbie K. Livingston, President
Aztec Environmental, Inc.

DL/dm

2060 No. Sherman Ave., Panama City, FL 32405 TEL: 850/747-0078 FAX: 850/784-0430 E-Mail: Aztec@BellSouth.net

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 03/24/98

PRODUCER

Paragon Insurance Service Inc.
P. O. Box 921966
3200 Pointe Pkwy. Ste. 300
Norcross, GA 30092

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

AZTEC ENVIRONMENTAL, INC.
2060 NORTH SHERMAN AVENUE

PANAMA CITY, FL 32405

COMPANIES AFFORDING COVERAGE

COMPANY A: COMMERCIAL UNDERWRITERS INS. CO.

COMPANY B: HANOVER INSURANCE

COMPANY C: LEGION INSURANCE CO.

COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR [X] OWNER'S & CONTRACTOR'S PROT [X] LEAD & ASBESTOS LIAB. INCLUDED	LAA001089	10/17/97	10/17/98	GENERAL AGGREGATE	$1,000,000
					PRODUCTS - COMP/OP AGG	$INCLUDED
					PERSONAL & ADV INJURY	$1,000,000
					EACH OCCURRENCE	$1,000,000
					FIRE DAMAGE (Any one fire)	$50,000
					MED EXP (Any one person)	$1,000
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS [X] 1,000,000 UNINSURED MOTORIST	ADA5244062-01	10/17/97	10/17/98	COMBINED SINGLE LIMIT	$1,000,000
					BODILY INJURY (Per person)	$
					BODILY INJURY (Per accident)	$
					PROPERTY DAMAGE	$
	GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT	$
					OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY [ ] UMBRELLA FORM [ ] OTHER THAN UMBRELLA FORM				EACH OCCURRENCE	$
					AGGREGATE	$
						$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL [ ] EXCL	WC3-030472	03/28/98	03/28/99	[X] WC STATUTORY LIMITS [ ] OTHER	
		10 DAY CANCELLATIO	N NOTICE	APPLIES	EL EACH ACCIDENT	$1,000,000
					EL DISEASE - POLICY LIMIT	$1,000,000
					EL DISEASE - EA EMPLOYEE	$1,000,000
	OTHER	JOB: ESCAMBIA COUNTY CENTRAL BOOKING & DETENTION FACILITY PENSACOLA, FL ESCAMBIA CNTY BOARD OF COMMISIONERS (OWNER), BROWN&ROOT (GC) AND SAMURAI CONSTR., INC. (GC) ARE INCL AS ADD'L INSD WITH RESPECT TO GL. THE CERT HOLDER IS AN INSURED UNDER THE AUTO POLICY TO EXTENT COVERAGE IS PROVIDED IN SECTION				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

II, LIAB COVERAGE, WHO IS AN INSURED, ITEM C. SUB-CONTR. WAIVES ALL RIGHTS OF SUBROGATION AGAINST OWNER & CONTR. FOR DAMAGE CAUSED BY PERILS. SAID INS. IS PRIMARY COVERAGE WITH RESPECT TO SUB'S OPERATIONS HEREUNDER.

CERTIFICATE HOLDER

SAMURAI CONSTRUCTION, INC.
2834-D INDUSTRIAL PLAZA DRIVE
TALLAHASSEE, FL 32301

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL *30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 03/19/98

PRODUCER

Paragon Insurance Service Inc.
P. O. Box 921966
200 Pointe Pkwy. Ste. 300
Norcross, GA 30092

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BE

INSURED

AZTEC ENVIRONMENTAL, INC.
2060 NORTH SHERMAN AVENUE

PANAMA CITY, FL 32405

COMPANIES AFFORDING COVERAGE

COMPANY A: COMMERCIAL UNDERWRITERS INS. CO.

COMPANY B: HANOVER INSURANCE

COMPANY C: LEGION INSURANCE CO.

COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE [X] OCCUR X OWNER'S & CONTRACTOR'S PROT X LEAD & ASBESTO INCLUDED	LAA001089 S LIAB.	10/17/97	10/17/98	GENERAL AGGREGATE PRODUCTS - COMP/OP AGG PERSONAL & ADV INJURY EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person)	$1,000,000 $INCLUDED $1,000,000 $1,000,000 $50,000 $1,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS X 1,000,000 UNIN SURED MOTORIST	ADA5244062-01	10/17/97	10/17/98	COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE	$1,000,000 $ $ $
	GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EACH ACCIDENT AGGREGATE	$ $ $
A	EXCESS LIABILITY UMBRELLA FORM X OTHER THAN UMBRELLA FORM	LAA001089	03/19/98	10/17/98	EACH OCCURRENCE AGGREGATE	$1,000,000 $3,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: INCL EXCL	WC2-030472 10 DAY CANCELLATIO	03/28/97 N NOTICE	03/28/98 APPLIES	X WC STATU-TORY LIMITS OTH-ER EL EACH ACCIDENT EL DISEASE - POLICY LIMIT EL DISEASE - EA EMPLOYEE	$ $1,000,000 $1,000,000 $1,000,000

OTHER JOB: ESCAMBIA COUNTY CENTRAL BOOKING & DETENTION FACILITY PENSACOLA, FL ESCAMBIA CNTY BOARD OF COMMISSIONERS (OWNER), BROWN & ROOT (GC) AND SAMURAI CONSTR., INC. (GC) ARE INCL AS ADDL INSD WITH RESPECT TO GL. THE CERT HOLDER IS AN INSURED UNDER THE AUTO POLICY TO EXTENT COVERAGE IS PROVIDED IN SECTION II, LIAB COVERAGE, WHO IS AN INSURED, ITEM C. SUB-CONTR. WAIVES ALL RIGHTS OF SUBROGATION AGAINST OWNER & CONTR. FOR DAMAGE CAUSED BY PERILS. SAID INS. IS PRIMARY COVERAGE WITH RESPECT TO SUB'S OPERATIONS HEREUNDER

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

SAMURAI CONSTRUCTION, INC.
2834-D INDUSTRIAL PLAZA DRIVE
TALLAHASSEE, FL 32301

CANCELLATION

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AUTHORIZED REPRESENTATIVE

ACORD 25-S (11/95)

MEANS AND METHOD

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GENERAL
SITE CONDITION

GENERAL SITE CONDITIONS

WORK INCLUDED

The Company shall furnish all labor, materials, equipment and services for the performance of the asbestos abatement work as outlined in the Scope of Work. This work will be performed in accordance with the guidelines and/or regulations of EPA, OSHA and all other related Federal, State and local agencies, and as detailed throughout these specifications.

QUALITY ASSURANCE

A. WORKER IDENTIFICATION (29 CFR 1910.1200)

1. The Company shall furnish proof that his employees have had instruction on the dangers of asbestos exposure, on respirator use, decontamination and OSHA regulations.

2. Documentations of workers medical exams, consisting of x-rays and pulmonary function shall be submitted upon request and as may be required by OSHA regulations.

B. POSTING OF REGULATIONS

1. The Company will have at all times in his possession at his office (one copy), OSHA regulation 1910.1001, Asbestos, 1928.56 Asbestos Amended and Environmental Protection Agency 40 CFR Part 61, Subpart B: National Emission Standard for asbestos, asbestos tripping work practices, and disposal of asbestos waste.

REGULATORY SUBMITTALS

The Company is required to notify the following agencies in writing prior to starting work for notification and instructions concerning proper disposal of asbestos waste material.

A. S. Environmental Protection Agency, Regional Office;

B. U.S. Department of Labor - OSHA Regional Office;

C. State Environmental Regulatory Authority;

D. Other state or city agencies as specified.

The following information will be submited, as a minimum, for notification:

A. Name and address of the company.

B. Address and description of the building including size, age, and use of the building and amount of asbestos to be removed (linear feet and/or square feet).

C. Names and address of transporter and waste disposal site to be used.

D. Name and address of air monitoring firm.

NOTE: Many states have pre-printed forms for notification.

DISPOSAL OF ASBESTOS WASTE (NESHAP)

A. The Company shall provide proof that disposal sites for the waste materials shall have current and valid permits to dump asbestos waste.

B. Waste removal procedures shall be done in accordance with all regulations as set forth by the related agencies listed In these specifications.

C. The landfill area used for dumping shall be certified to receive and bury materials contaminated by asbestos. The following procedure will be utilized.

1. Inform tally clerk at scale room at dump, that material is asbestos waste. He will direct you to designated area.

2. Obtain signed dump ticket indicating material is asbestos waste, and site it came from. Dump ticket must also indicate amount of waste in cubic yards or tons.

3. Submit dump ticket with final payment requisition.

DATA SUBMITTAL/FINAL PAYMENT

The following data must be submitted to the Owner before final payment is made.

1. Disposal forms - proof of final disposition of the asbestos material.

2. All air monitoring test information including final certification report.

3. Copies of agency notifications.

4. Copies of employee release forms.

OWNER SUPPLIES FACILITIES

The owner will supply water and electricity, in sufficient quantities during the performance of the work. The Company will provide all hoses and extension required for equipment operations.

GENERAL
WORK PROCEDURES

GENERAL WORK PROCEDURES

APPROVALS AND INSPECTION

A. All temporary facilities and work procedures detailed in this specification will be strictly adhered to and meet or exceed all E.P.A. (40 CFR 763) and OSHA (29 CFR 1910 and 1926) regulations.

B. This work shall further be subject to approval of the owner and/or his representatives.

C. The Company shall submit for the Owner approval of a layout drawing of the proposed isolation facility and work area prior to performing any work on site. This layout should indicate which areas will be sealed off (and by what means) and where showers, chambers, lockers, storage, air filtration devices, etc., will be located.

AIR FILTERING

A. Negative pressure air movement atmosphere will be created in the active work area using HEPA equipped air movement units.

B. Air will be drawn from clean areas through the decontamination and active work areas, HEPA filtered and exhausted through air movement units to the containment exterior.

C. Air movement will be sufficient quantity to ensure a minimum of four (4) air changes per hour.

EXAMPLE: Active Work Area = 50' X 50' X 20' H = 50.000 cu. ft.

Four air changes per hour = 200,000 cu. ft.

per minute = 3,333 cu. ft.

This active work area would require a combination of air movement/HEPA units, i.e., two (2) 2,000 CFM units.

PLACEMENT OF CAUTION SIGNS

A. The Company shall supply and place at all work areas, as conditions warrant , the caution signs as specified. Signs shall be in place for the duration of the work.

TEMPORARY SHOWER FACILITY

As an integral part of the isolation facilities, the Company shall construct a temporary shower facility between work areas and clean room on removal and encapsulation projects.

ISOLATION BARRIER MAINTENANCE AND REMOVAL

A. Maintain all temporary barriers, facilities and controls as long as needed for the same and proper completion of the work. Any breaches in the control system will be corrected at the beginning of each work day. Work will not be allowed to commence until all control systems are in-place and operable. Remove all such

temporary facilities and controls as rapidly as progress of the work will permit, or as directed by the Owner.

B. No barriers are to be removed until all debris is properly bagged and carted from work areas, and areas are thoroughly cleaned in accordance with provisions detailed herein.

HOUSEKEEPING

Throughout the work period, the Company shall maintain the building and site in a standard of cleanliness as specified throughout these specifications.

A. Contaminated disposal clothing, respirator filters, and other debris will be bagged and sealed at the end of each work day.

B. All asbestos generated by either removal, encapsulation or repair, will be bagged immediately and not allowed to be left exposed at the end of each work day.

C. Respirators will be thoroughly cleaned at the end of each work day and stored for the next day's use.

D. Retain all stored items in an orderly arrangement allowing maximum access, not impeding traffic, and providing the required protection of materials.

E. Do not allow the accumulation of scrap, debris, waste material, and other items not require for completion of the work.

F. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the ecology.

G. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site; restack, tidy, or otherwise service all arrangements to meet the requirements.

H. Maintain the site in a neat and orderly condition at all times.

WORK AREA ENTRANCE/EXIT

All workers involved in the removal of asbestos will utilize the following procedure for work area entrance and exit.

A. The worker enters outside room and removes clothing, puts on clean coveralls, gloves and respirator. Gloves will be taped to coverall sleeves and boots taped to coverall legs.

B. Any additional clothing and equipment left in dirty room required by the worker, is put on. (When the work area is too cold for coveralls only, the worker will usually provide himself with additional warm garments. These must be treated as contaminated clothing and left in the decontamination area.)

C. Worker proceeds to work area.

D. Before leaving the work area, the worker should remove all gross contamination and debris from the overalls by using a HEPA vacuum. This is carried out

by one worker assisting another.

E. The worker proceeds to equipment room and removes all clothing except respiratory protection equipment. Extra work clothing may be stored In contaminated end of the area.

F. Disposable coveralls are placed in a bag for disposal with other material. The worker then proceeds into the shower room. Respiratory protection equipment should only be removed after wetting in shower to prevent inhalation of fibers.

G. After showering, the worker moves to the clean room and dresses in either new coveralls for another entry or street clothes if leaving.

H. Respirators are picked up, washed and wrapped by protected workers. The respirators are then brought to the clean room by an outside worker.

I. Workers shall not eat, drink, smoke, chew gum, or chew tobacco in the work area. To eat, drink or smoke, workers shall follow the decontamination procedure outlined above.

J. All footwear shall be left inside work area until completion of the job, then cleaned or discarded.

K. All contaminated clothing must be handled as asbestos waste and cleaned or laundered with methods conforming to OSHA regulation 1926.58 (2) (i) and 1026.58 (3).

PERSONNEL PROTECTION

PERSONNEL PROTECTION (29 CFR 1926.1101 (i))

Personnel protection is required for mechanics, supervisors and visitors at the work site during the set and abatement (removal/encapsulation) operations.

Each worker shall be supplied with a minimum of two (2) complete disposal uniforms and respirator filter changes per day for the complete duration of the project.

In addition to uniforms for workers, the company shall have on hand two (2) additional uniforms per day and respirators for personnel who are authorized to inspect the work site. Visitors shall not enter the work area unless they meet all the entrance requirements including medical, respiratory and training. No waives of liability will be permitted.

Work clothes will consist of disposable full body coveralls, head covers, footwear, and eye protection (goggles/face shields). Hard hats should be available as appropriate.

The following general work practices will be observed:

A. Disposable uniforms with be worn by mechanics during all phases of the work-layout, removal or encapsulation and post clean-up operations.

B. Dual cartridge respirators will be worn by laborers and mechanics as minimum during set-up operations (plastic draping, light fixture dropping or removal, etc.).

C. Dual cartridge respirators as minimum will be worn by all personnel In the active work area. Pad type filters as prefilters may be used to provide extra protection and extend the life of the cartridge.

EQUIPMENT & MATERIALS

EQUIPMENT AND MATERIALS

MATERIALS

The list of required materials include, but not necessarily limited to, the following:

A. Respirator Masks - Dual Cartridge type or approved equal.

B. Disposable Clothing - Clothing shall consist of coverall, head cover and foot cover. Latex gloves will be worn for handcover as a minimum.

C. Saturants - Mixtures for material saturation and fiber control shall be prepared in the following ratios using an asbestos encapsulant diluted with water with no less than 50% solids.

   a. Saturants - One (1) part encapsulant diluted with three (3) parts water.

   b. Fiber control - One (1) part encapsulant diluted with three (3) parts water.

D. Polyethyline sheeting, four (4) mills, for vertical protection (walls, doors, windows,) and six (6) mills for all other uses (floors, fixed equipment, HVAC supply and return openings).

E. Polyethylene bags (with caution labels) six mil (.006") minimum for disposal. Special bag widths are available for pipe coverings.

F. Duct tape shall be fabric type. Paper masking tape will not be permitted.

G. Encapsulation material -

   a. bridging type

   b. penetrating type

H. Containment (glove) Bags - 7 mil thickness with heat sealed seams and with plastic reinforced arms and gloves.

PROJECT SIGNS (29 CR 1910 - Paragraph 10)

A. Project and danger signs shall be provided and displayed at all approaches to the work area.

B. Danger signs shall be 14" W X 20" L, yellow background, lettered in black as follows:

LETTERING (IN ADDITION TO "DANGER")	SIZE	TYPE
ASBESTOS: CANCER AND LUNG DESEASE HAZARDS	1"	Block
Respirator and Protection Clothing are required in this area	1/4"	Gothic

Authorized Personnel Only 1/4" Gothic

Spacing between lines shall be at least equal to the height of lettering on the line above.

C. DANGER LABELS:

1. LABELING:

   Danger labels shall be affixed to all bags and containers which are to be filled with asbestos waste material and removed from site.

2. SPECIFICATIONS:

   Danger labels shall be printed in letters of sufficient size and contrast to be readily visible and legible. The label shall state:

DANGER
Contains Asbestos Fibers
Avoid Creating Dust
Cancer and Lung Disease Hazard

EQUIPMENT

A. Air movement and filtering equipment, equipped with HEPA filters rated at 99.97% removal down 0.3 microns, and of sufficient capacity to provide a minimum of four (4) air changes per hour for each active work area.

B. Electric airless spray equipment for saturating and mist fiber control. High pressure (1500 psi) and low pressure (500 psi) equipment must be available on-site and utilized as required.

C. Vacuum or vacuum systems, HEPA rated for surface cleaning and general housekeeping.

D. Hand tools including brooms, plastic shovels, scrapers, brushes, etc., in sufficient quantity to ensure the appropriate level of housekeeping.

E. Shower and contaminated water containment system.

SITE LAYOUT

SITE LAYOUT

TEMPORARY ISOLATION FACILITIES AND CONTROL

Temporary facilities and controls required for this work include, but are not necessarily limited to:

A. Clean room and shower facility conveniently located to work areas. External or removable decontamination chambers may be used if located adjacent to and fully connected with active work area.

B. Enclosure work areas.

C. Danger signs

D. Visual barriers between work areas and other building areas, when adjacent areas are occupied during course of work.

MOVABLE FURNITURE AND EQUIPMENT REMOVAL

A. Movable furniture and equipment will be removed from area of work as agreed upon with the Owner.

B. Curtains, drapes or other wall drapings are to be carefully removed, stored outside work area and reinstalled after final clean-up. Note: It is a recommended practice to label the article for proper relocation upon job completion.

C. Heating and ventilating system, servicing the area of work must be shut down prior to starting any work.

ISOLATION AREAS

Isolation of work areas, as required, is necessary to prevent contamination and fiber disposal to other areas of the building during work and clean-up operation. Air movement will flow uninterrupted from outside the work area through the change and equipment rooms and into the active work area. It is then HEPA filtered and exhausted to the building exterior.

AREA PREPARATION

A. The Company shall isolate the work area for the duration of the work by completely sealing off all openings and fixtures in the work area, including, but not limited to, heating, ventilation ducts, doorways, corridors, windows, sky-lights and lighting with plastic sheeting taped securely in place.

B. The company shall build decontamination chambers to be connected to each active work area for entrance to or exit from the active work area.

C. The Company shall cover all fixed items and equipment in the work area with plastic sheeting taped securely in place.

D. All floor and wall surfaces in the work area shall be covered with plastic sheeting of specified thickness and taped securely in place to protect the surfaces from water damage and asbestos contamination.

E. Upon completion of area isolation, the Company shall remove, where practical, all detachable electrical heating and ventilation equipment, wipe and vacuum clean and remove from active work area.

INSPECTION

The work area, after all preparation is completed, must be inspected by the Owner, his representatives of the competent person on site for conformity to all agency regulations and these specifications, before asbestos material is removed or encapsulated.

SPECIAL CONDITIONS

A. Small abatement projects or abatement in a confined area may require special small containments. Containment bagging, enclosed scaffolds, or other special engineering methods shall still adhere to the E.P.A., & O.S.H.A. guidelines.

B. Containment Bagging.

1. Containment (glove) bagging work shall be conducted in areas or locations where full containment is either logistically impossible or not cost effective. Containment bags will be of the approved type and thickness with heat sealed seams and plastic reinforced arms. All containment bagging will be done with the proper wet-removal methods and with HEPA vacuums for decontamination. The bags will be sealed air-tight against the surface being worked and will be disposed inside an approved 6-mil asbestos waste bag that has the proper labeling.

2. Workers shall use the personal respiratory protective equipment that would be utilized in any regular containment.

3. Personnel air testing will be performed upon workers using containment bags.

4. Danger signs will be posted and a work area established as per usual abatement projects.

5. All disposal will be conducted as per normal abatement procedures.

C. Mini-Containment.

1. In areas where full, ventilated containment is impossible, the Company will set up a " sealed" small containment area, large enough for the removal personnel to work in but too small for a normal decon or exit route to a decon chamber. All normal practice will be required by the enclosure will utilize a HEPA equipment air filtering unit. All equipment, the removal technician and materials will be sealed into the small containment. The worker will use double suiting as a decontamination method and is required to wear the respirator specified for that particular abatement project. Once the work in the small enclosure is completed, the worker will clean, spray and encapsulant on the plastic and work surfaces and then use the HEPA vacuum on himself to remove any contamination. He will then clean and bag his tools and materials and strip the outer suit off before cutting the containment and leaving the work area, leaving the outer suit inside and removing the cleaned and bagged tools with him.

2. Air monitoring will be conducted outside the mini-containment while the removal is in progress and the worker will wear a personnel sampler to monitor exposure levels in the containment.

3. Danger signs, barriers, and other protective measures shall be used as in any abatement project.

4. Clean up shall follow along standard operational procedures as outlined In the decontamination section of these specifications.

D. Enclosed Scaffolds.

1. Where warranted, the Company will make use of "Enclosed Scaffold Structures" for removal or abatement in areas where the asbestos is located over 8' from stable flooring. These scaffolds will be classified as a containment area and will be equipped with HEPA air filtering units. Scaffold containment utilizes the same decon procedure as that of mini-containment (double suites, HEPA vacuums, etc.), and in cases where the scaffold cannot be fully sealed, the Company will create an Inward air flow (using HEPA air filtering units) to assure environmental safety.

2. All monitoring will be conducted on the same basis as with mini-containment methods.

3. All other precautions will be followed as in any normal abatement project.

4. All disposal will be conducted as with any abatement projeot.

DECONTAMINATION CHAMBER (USAGE AND ACTIVITIES)
NESHAP AND 29 CFR 1910 VIII)

A. Outside room (clean room): In this room the worker leaves all street clothes and dresses in clean working clothes (usuallly disposable coveralls). Respiratory protection equipment is also picked up in this area. No asbestos contaminated items should inter this room. Workers enter this room either outside and structure dressed in street clothes, or from the showers.

B. Shower Room: This is a separate room used for transit by cleanly dressed workers entering the job from the outside room or by workers headed for the showers after undressing in the equipment room.

Note: Shower water will be filtered and discharged.
No shower will be reused as a wetting agent.

C. Equipment room (non-contaminated area): Work equipment, footwear, additional contaminated work clothing are left here. This is a change and transit area for workers.

ERECTION OF PLASTIC BARRIERS

A. Plastic barriers of specified thickness shall be erected by the Company to totally enclose work areas. Barriers shall cover walls, floors and equipment. Barriers must be maintained at all times during progress of the work. Mechanics involved in the preparation of the active work area will be protected from the

exposure to airborne asbestos caused by the removal/relocation of fixtures and equipment or the hanging of barriers.

B. Cover all furniture and equipment that cannot be removed from work areas.

C. Movable furniture, partitions, and equipment must be removed from the work area prior to start of work, unless included in the work contract. Owner is responsible for clean access to the work area in order for the Company to adhere to its schedule of abatement phases. Failure to have any specified area clean of movable items will result in delays to the Company. The Company, unless included in the contract, will not be responsible for removing or reinstalling these items. At the conclusion of work and after final air tests have been approved, any movable items may be reinstalled in the work areas by the owner or his represenatives. The owner is held fully responsible to clarify any requests for the Company to remove the aforementioned items with the project manager representing the Company before the contract is finalized.

D. Duct tape, staples, wood strips, and other methods will be used to attach vertical plastic barriers to walls and to floors. All edges of plastic material shall overlap the adjoining sheet a minimum of twelve inches. All joints (vertical and horizontal) to be continuously sealed with duct tape. Cover all H & V supply and exhaust grilles.

DANGER SIGNS

1. The Company shall install signs as specified at all entrances to work area as required.

AIR TESTING
&
MONITORING

AIR TESTING AND MONITORING

GENERAL

A. Air sampling of the work areas and surrounding environment will be conducted during the performance of this contract so as to ensure compliance with all codes, regulations, ordinances, and this specification.

B. The Company will take air samples and include the cost for a fully qualified independent testing laboratory which specializes in air sample analysis. The testing company's qualifications shall be submitted for approval to the Owner before work is begun.

C. In the event the Owner elects to conduct and pay for the air monitoring program, the Company shall fully cooperate with the selected testing lab and all others responsible for testing and inspecting the work.

TESTING PROCEDURE

A. Air testing and analyses shall be in accordance with E.P.A. and requirements of Section 1910.1001 (f) of the O.S.H.A. Regulations, as a minimum.

B. Air tests taken prior to start of work (background) and at completion (post test) will be analyzed by phase contract or polarized light microcopy. TEM or SEM analysis may be provided at additional cost.

C. TEST REPORTS

1. Air samples to be received at the laboratory and utilized within twelve (12) hours of the time the samples were taken.

2. The Company will give verbal notification to the Owner of the results of each test within 24 hours of the time the samples were delivered to the laboratory, and confirm the results in writing within three (3) days thereafter.

3. Prompt air monitoring results are necessary so that, if required, modifications to work methods and/or practices may be implemented as soon as possible, if such action is required.

   For this purpose the company uses real time measurement of fibers by GCA Fibrous Aerosol Monitor (FAM-1).

SAMPLING

Sampling procedure shall be as follows:

A. Representatives of the testing laboratory shall have access to the work area at all times. Provide facilities for such access in order that the laboratory may properly perform its function.

B. Specimens and samples for testing shall be taken by the testing personnel. Sampling equipment and personnel will be provided by the testing laboratory.

C. Air sampling shall be taken in each work area prior to commencement of the

work at the location. Fiber count taken during final clean-up monitoring shall not exceed the background level established by pre-job monitoring levels.

D. Air samples can be taken on, but not necessarily limited to, the following schedule.

AREA	WHEN	NUMBERS	MINIMUM VOLUME SAMPLES (liters)	COLLECTION RATE (liters/min.)
Work Area	Prior to job start	1	2000	10
Work Area	Personnal		240	2.5 MAX
Work Area	During abatement work	Daily	2000	10 MAX
Work Area Exterior (HEPA exhaust)	During abatement work	Daily	2000	10
Work Area	Upon work completion	1	3000	10

NOTE: Consecutive daily air samples will be taken during abatement to yeild a minimum of eight (8) hours of sampling time for each active work area.

PERMISSIBLE EXPOSURE LIMITS (PELs)

A. Time-weighted average limit (TWA):
The employer **SHALL** ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter of air as an eight (8) hour time-weighted average (TWA).

B. Exposure limit:
The employer **SHALL** ensure that no employee to an airborne concentration of asbestos in exess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.

C. Exposure measurements:

1. The employer **SHALL** keep an accurate record of all measurements taken to monitor employee exposure to asbestos.

   NOTE: The employer may utilize the service of competent organizations such as industry trade associations and employee associations to maintain the records required by this section.

2. This record **SHALL** include at least the following information:

   a. The date of measurement

   b. The operation involving exposure to asbestos that is being monitored.

   c. Sampling and analytical methods used and evidence of their accuracy.

   d. Number, duration, and results of samples taken.

   e. Type of protective devices worn, if any; and

   f. Name, social security number, and exposure of the employees whose exposures are represented

3. The employer **SHALL** maintain this record for at least thirty (30) years, in accordance with **29 CFR 1910.20.**

Appendix A to 1926.1101 (Amended)

Part Number 1926

Standard Number 1926.1101 App A

Title OSHA Reference Method - Mandatory

This mandatory appendix specifies the procedure for analyzing air samples for asbestos and specifies quality control procedures that must be implemented by laboratories performing the analysis. "The sampling and analytical methods described below represent the elements of the availabe monitoring methods (such as Appendix B of this regulation, the most current version of the OSHA method ID-160, or the most current version of the NIOSH Method 7400). All employers who are required to conduct air monitoring under paragraph (f) of the standard are required to utilize analytical laboratories that use this procedure, or an equivalent method, for collecting and analysing samples.

Sampling and Analytical Procedure

1. The sampling medium for air samples **SHALL** be mixed cellulose ester filter membranes. These **SHALL** be designated by the manufacturer as suitable for asbestos counting. See below for rejection of blanks.
2. The preferred collection device **SHALL** be the 25-mm diameter cassette with an open-faced 50-mm electrically conductive extension cowl. The 37-mm cassette may be used if necesary but only if written justification for the need to use the 37-mm filter cassette accompanies the sample results in the employee's exposure monitoring record. Do not reuse or reload cassettes for asbestos sample collection.
3. an air flow rate between 0.5 liter/min and 2.5 liters/min **SHALL** be selected for the 25/mm cassette. If the 37-mm cassette is used, an air flow rate between 1 liter/min and 2.5 liters/min **SHALL** be selected.
4. Where possible, a sufficient air volume for each air sample **SHALL** be collected to yield between 100 and 1,300 fibers per square millimeter on the membrane filter. If a filter darkens in appearance or if loose dust is seen on the filter, a second sample **SHALL** be started.
5. Ship the samples in rigid container with sufficient packing material to prevent dislodging the collected fibers. Packing material that has a high electrostatic charge on its surface (e.g., expanded polystyrene) cannot be used because such material can cause loss of fibers to the sides of the cassette.
6. Calibrate each personal sampling pump before and after use with a representative filter cassette installed between the pump and the calibration devices.
7. Personal samples **SHALL** be taken in the "breathing zone" of the employee (i.e., attached to or near the collar or lapel near the worker's face).
8. Fiber counts **SHALL** be made by positive phase contrast using a microscope with an 8 to 10 X eyepiece and a 40 to 45 X objective for a total magnification of approximately 400 X and a numerical aperture of 0.65 to 0.75. The microscope **SHALL** also be fitted with a green or blue filter.
9. The microscope **SHALL** be fitted with a Walton-Beckett eyepiece graticule calibrated for a field diameter of 100 micrometers (+/-2 micrometers).
10. The phase-shift detection limit of the microscope **SHALL** be about 3 degrees measured using the HSE phase shift test slie as outlined below.
    a. Place the test slide on the microscope stage and center it under the phase objective

b. Bring the blocks of grooved lines into focus.

Note: The slide consists of seven sets of grooved lines (ca. 2 grooves to each block) in descending order of visibility from sets 1 to 7, seven being the least visible. The requirements for asbestos counting are that the microscope optics must resolve the grooved lines in set 3 completely, although they may appear somewhat faint, and that the grooved lines in sets 6 and 7 must be invisible. Sets 4 and 5 must be at least parialIly visible but may vary slightly in visibility between microscopes. A micriscope that fails to meet these requirements has either too low or too high a resolution to be used for asbestos counting.

c. If the image deteriorates, clean and adjust the microscope optics. If the problem persists, consult the microscope manufacturer.

11. Each set of samples taken will include 10% field blanks or a minimum of 2 field blanks. 1 of these blanks must come from the same lot as the filters used for sample collection. The field blank results **SHALL** be averaged and subtracted from the analytical results before reporting. A set consists of any sample or group of samples for which an evaluation for this standard must be made. Any samples represented by a field blank having a fiber count in excess of the detection limit of the method being used **SHALL** be rejected.

12. The samples **SHALL** be mounted by the acetone/triacetin method or a method with an equivalent index of refraction and similar clarity.

13. Observe the following counting rules.

a. Count only fibers equal to or longer than 5 micrometers. Measure the length of curved fibers along the curve.

b. In the absence of other information, count all particles as asbestos that have a length-to-width ratio (aspect ratio) of 3:1 or greater.

c. Fibers lying entirely within the boundary of the Walton-Beckett graticule field **SHALL** receive a count of 1. Fibers crossing the boundary once, having one end within the circle, **SHALL** receive the count of one half (1/2). Do not count any fiber that crosses the graticule boundary more than once. Reject and do not count any other fibers even though they may be visible outside the graticule area.

d. Count bundles of fibers as one fiber unless individual fibers can be identified by observing both ends of an individual fiber.

e. Count enougb graiticule fields to yeild 100 fibers. Count a minimum of 20 fields; stop counting at 100 fields regardless of fiber count.

14. Blind recounts **SHALL** be conducted at the rate of 10 percent.

QUALITY CONTROL PROCEDURES

1. **Intralaboratory program:** Each laboratory and/or each company with more than one microscopist counting slides **SHALL** establish a statistically designed quality assurance program involving blind recounts and comparisons between microscopists to monitor the variability of counting by each microscopist and between microscopists. In a company with more than one laboratory, the program **SHALL** include all laboratories, and **SHALL** also evaluate the laboratory-to-laboratory variability.

2. **Interlaboratory program:**

a. Each laboratory analyzing asbestos samples for compliance determination **SHALL** implement an interlaboratory quality assurance program that, as a minimum , includes participation of at least two other independent laboratories. Each laboratory **SHALL** participate in round robin testing at least once every 6 months with at least all the other laboratories in its interlaboratory quality assurance group. Each laboratory **SHALL** submit slides typical of its own workload for use in this program. The round robin **SHALL** be designed and results analyzed using appropriate statistical methodology.

b. All laboratories should also participate in a national sample testing scheme such as the Proficiency Analytical Testing Program (PAT) or the Asbestos registry sponsored by the American Industrial Hygiene Association (AIHA).

3. All individuals performing asbestos analysis must have taken the NIOSH course for sampling and evaluating airborne asbestos dust or an equivalent course.

4. When the use of different microscopes contributes to differences between counters and laboratories, the effect of the different microscope **SHALL** be evaluated and the microscope **SHALL** be replaced, as necessary.

5. Current results of these quality assurance programs **SHALL** be posted in each laboratory to keep the microscopists informed.

WORK PERFORMANCE REQUIREMENTS FOR CLASS I

Class I Requirements.

Definition: Class I asbestos work means activities involving the removal of TSI and surfacing ACM and PACM.

In addition, the following engineering controls and work practices and procedures **SHALL** be used.

All Class I work, including the installation and operation of the control system **SHALL** be supervised by a competent person.

The employer **SHALL** use one of the following methods to ensure that airborne asbestos does not migrate from the regulated area:

> Critical barriers **SHALL** be placed over all the openings to the regulated area, except where activities are performed outdoors; or "OSHA is clarifying the language to reflect the Agency's intention that outdoor Class I work performed in areas where no employees are working in the adjacent area need not utilize critical barriers, nor is perimeter monitoring required during such work when control methods are properly used.

The employer **SHALL** use another barrier or isolation method which prevents the migration of airborne asbestos from the regulated area, as verified by perimeter area surveillance during each work site at each boundary of the regulated area, showing no visible asbestos dust; and perimeter area monitoring showing that clearance levels contained in 40 CFR Part 763, Subpart, E, of the EPA Asbestos in Schools Rule are met, or that perimeter area levels, measured by Phase Contrast Microscopy (PCM) are no more than background levels representing the same area before the asbestos work began. The results of such monitoring **SHALL** be made known to the employer no later than 24 hours from the end of the work shift represented by such monitoring.

Exception: For work completed outdoors where employees are not working in areas adjacent to the regulated areas, this is satisfied when the specific control methods for Class I work are used.

For all Class I jobs, HVAC systems **SHALL** be isolated in the regulated area by sealing with a double layer of 6 mil plastic or the equivalent;

For all Class I jobs, plastic sheeting **SHALL** be placed on surfaces beneath all removal activity.

For all Class I jobs, all objects within the regulated area **SHALL** be covered with plastic sheeting which is secured by duct tape.

For all Class I jobs, where exposure monitoring shows that a PEL is exceeded, the employer **SHALL** ventilate the regulated area to move contaminated air away from the breathing zone of employees toward a HEPA filtration or collection device.

Specific control methods for Class I work:

In addition, Class I asbestos work **SHALL** be performed using one or more of the following control methods pursuant to the limitation stated below:

Negative Pressure Enclosure (NPE) systems:

NPE systems **SHALL** be used where the configuration of the work area does not make the erection of the enclosure infeasible, with the following specifications and work practices.

Specification:

1. The negative pressure enclosure (NPE) may be of any configuration.
2. At least 4 air changes per hour **SHALL** be maintained in the NPE.
3. A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, **SHALL** be maintained within the NPE as evidenced by manometric measurements.
4. The NPE **SHALL** be kept under negative pressure throughout the period of its use, and
5. Air movement **SHALL** be directed away from employees performing asbestos work within the enclosure, and toward a HEPA filtration or a collection device.

Work Practices:

1. Before beginning work within the enclosure and at the beginning af each shift, the NPE **SHALL** be inspected for breaches and smoke-tested for leaks, and any leaks sealed.
2. Electrical circuits in the enclosure **SHALL** be deactivated, unless equipped with ground-fault circuit interrupters.

Glove Bag Systems:

May he used to remove PACM and/or ACM from straight runs of piping and elbows and other connections with the following specifications and work practices:

Specifications:

1. Glovebags **SHALL** be made of 6 mil thick plastic and shall be seamless at the bottom.
2. Glovebags used on elbows and other connections must be designed for that purpose and used without modifications.
   OSHA-6/29/95, "glovebags may be used on connecting configurations so long as they are designed for that purpose, used as designed, and not modified."

Work Practices:

1. Each glovebag **SHALL** be installed so that it completely covers the circumference of pipe or other structure where the work is to be done.
2. Glovebags **SHALL** be smoke-tested for leaks and any leaks sealed prior use.
3. Glovebags may be used only once and may not be moved.
4. Glovebags **SHALL** not be used on surfaces whose temperature exceeds 150 F.
5. Prior to disposal, glovebags **SHALL** be collapsed by removing air within them using a HEPA vacuum.
6. Before beginning the operation, loose and friable material adjacent to the glovebag operation **SHALL** be wrapped and sealed in two layers of six mil plastic.
7. Where system uses attached waste bag, such bag **SHALL** be connected to collection bag using hose or other material which **SHALL** withstand pressure of ACM waste and water without losing its integrity:
8. Sliding valve or other device **SHALL** separate waste bag from hose to ensure no exposure when waste bag is disconnected.
9. At least two persons **SHALL** perform Class I glovebag removal operations.

Negative pressure glove bag systems:

Negative pressure glove bag systems MAY be used to remove ACM or PACM from piping.

Specification:

1. In addition to specifications for glove bag systems above, negative pressure glove bag systems **SHALL** attach HEPA vacuum systems or other devices to prevent collapse during removal.

Work Practices:

1. The HEPA vacuum cleaner or other device used to prevent collapse of bag during removal **SHALL** run continually during the operation until it is completed at which time the bag shall be collapsed prior to removal of the bag from the pipe.
2. Where a seperate bag is used along with a collection bag and discarded after one use, the collection bag may be reused if rinsed clean with amended water before reuse.

Walk-In Enclosure:

A small walk-in enclosure which accommodates no more than two persons (mini-enclosure) may be used if the disturbance or removal can be completely contained by the enclosure with the following specifications and work practices.

Specification:

1. The fabricated or job-made enclosure **SHALL** be constructed of 6 mil plastic or equivalent:
2. The enclosure **SHALL** be placed under negative pressure by means of a HEPA filtered vacuum or similar ventaliation unit;

Work Practices:

1. Before use, the mini-enclosure **SHALL** be inspected for leaks and smoke-tested to detect breaches, and any breaches sealed.
2. Before reuse, the interior **SHALL** be completely washed with amended water and HEPA-vacuumed.
3. During use, air movement **SHALL** be directed away from the employees breathing zone within the mini-enclosure.

Remove pipe covering by following procedure:

1. Remove metal bands.

2. Locate section length (typically three feet).
3. Cut around circumference at end of attached section. Ensure section is free by slighty twisting.
4. Locate upper and lower half seam and position at top of the pipe.
5. Cut along length of section.
6. Carefully open each half: lower from pipe and place one half on top of the other. This requires the outer canvas covering to be removed from one half.

Removed material to be placed in 6 mil (.0006") polyethylene bags tied securely, and and disposed of as described herein.

Air testing shall be conducted as previoustly described.

Vacuum any remaining material from sub surfaces, i.e: Wire lath, concrete, pipe.

Seal all surfaces where asbestos has been removed with a mixture of a bridging type asbestos encapsulant and paint to freeze any residual fibers in-place.

All polyethylene, tape, clothing and cleaning materials shall be bagged and disposed of as specified.

Clean all equipment, tools, etc., prior to removing them from the work area.

The Company shall then proceed with the final clean-up and decontamination operation.

WORK PERFORMANCE REQUIREMNTS FOR CLASS II

WORK PERFORMANCE REQUIREMENTS FOR CLASS II

Work Practices & Engineering Controls for Class II Work:

Class II asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos containing wallboard, floor tile, and sheeting, roofing, and siding shingles, and construction mastics.

"...if the employer shows, that in any particular job, that well-trained and experienced workers, with an established "track record" of keeping exposures law will perform that removal, the required controls are less stringent than those required for Class I removals."

A. Critical barriers **SHALL** be placed over all openings to the regulated area; or,
B. The employer **SHALL** use another harrier or isolation method which prevents the migration of airborne asbestos from the regulated area, as verified by perimeter area monitoring or clearance monitoring.
C. Plastic sheeting **SHALL** be placed on surfaces beneath all removal activity;
D. For removing vinyl and asphalt flooring materials which contain ACM or for which in buildings constructed no later than 1980. The employer **SHALL** ensure that employees comply with the following work practices and that employees are trained in these practices:
   1. Flooring or its backing **SHALL** not be sanded.
   2. Vacuums equipped with HEPA filter, disposable dust bag, and metal floor tool **SHALL** be used to clean floors.
   3. Resilient sheeting **SHALL** be removed by cutting with wetting of the snip point and wetting during decontamination. Rip-up of resilient sheet floor materials is prohibited.
   4. All scraping of residual adhesive and/or backing **SHALL** be performed using wet methods.
   5. Dry sweeping is prohibited.
   6. Mechanical chipping is prohibited unless performed in a negative pressure enclosure.
   7. Tiles **SHALL** be removed intact, unless the employer demonstrates that intact removal is not possible.
   8. When tiles are heated and can be removed intact, wetting may be omitted.
   9. Resilient flooring material including associated mastic and backing **SHALL** be assumed to be asbestos containing unless an industrial hygienist determines that it is asbestos free using recognized analytical techniques.

FOR REMOVING ROOFING MATERIAL

which contains ACM the employer **SHALL** ensure that the following work practices are following:

A. Roofing material **SHALL** be removed in an intact state to the extent feasible.
B. Wet methods **SHALL** be used to remove roofing materials that are not intact, or that will be rendered not intact during removal, unless such wet methods are not feasible or will create safety hazards.
C. Cutting machines **SHALL** be continuously misted during use, unless a competent person determines that misting substantially decreases worker safety.
D. When removing built-up roofs with asbestos-containing roofing felts and an aggregate surface using a power roof cutter, all dust resulting from the cutting operation **SHALL** be collected by a HEPA dust collector, or sball be HEPA vacuumed by vacuuming along the cut line. When removing built-up roofs with asbestos-containing roofing felts and a smooth surface using a power roof cutter, the dust resulting from the cutting operation **SHALL** be collected either by gently sweeping and then carefully and completely wiping up the still-wet dust and debris left along the cut line. The dust and debris shall be

immediately bagged or placed in covered containers.

E. Asbestos-containing material that has been removed from a roof shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered to the ground via covered, dust-tight chute, crane or hoist:
   1. Any ACM that is not intact shall be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift. While the material remains on the roof it shall either be kept wet, placed in plastic sheeting waste bag, or wrapped in plastic sheeting.
   2. Intact ACM shall be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift. Upon being lowered, unwrapped material **SHALL** be transferred to a closed receptacle in such manner so as to preclude the dispersion of dust.
   3. Roof level heating and ventilation air intake sources **SHALL** be isolated or the ventilation system **SHALL** be shut down.
   4. Not withstanding any other provision of this section, removal or repair of sections of intact roofing less than 25 square feet in area does not require use of wet methods or HEPA vacuuming as long as manual methods which do not render the material non-tact are used to remove the material and no visible dust is created by the removal method used. In determining whether a job involves less than 25 square feet, the employer shall include all removal and repair work performed on the same roof on the same day.

When removing cementitious asbestos-containing **SIDING AND SHINGLES OR TRANSITE PANELS** containing ACM on building exteriors (other than roofs) the employer shall ensure that the following work practices are followed:

A. Cutting, abrading or breaking siding, shingles, or transite panels, **SHALL** be prohibited unless the employer can demonstrate that methods less likely to result in asbestos fiber release cannot be used.
B. Each panel or shingle **SHALL** be sprayed with amended water prior to removal.
C. Unwrapped or unbagged panels or shingles **SHALL** be immediately lowered to the ground via covered dust-tight chute, crane or hoist or placed in an impervious waste bag or wrapped in plastic sheeting and lowered to the ground no later than the end of the work shift.

When **REMOVING GASKETS** containing ACM, the employer **SHALL** ensure that the following work practices are followed:

A. If a gasket is visibly deteriorated and unlikely to be removed intact, removal **SHALL** be undertaken within a glovebag.
B. The gasket **SHALL** be thoroughly wetted with amended water prior to its removal.
C. The wet gasket **SHALL** be immediately placed in a disposal container.
D. Any scraping to remove residue must be performed wet.

When performing **ANY OTHER CLASS II REMOVAL** of asbestos containing material for which specific controls have not been listed:

A. The material **SHALL** be thoroughly wetted with amended water prior to and during its removal .
B. The material **SHALL** be removed in an intact state unless the employer demonstrates that intact removal in not possible.
C. Cutting, abrading or breaking the material **SHALL** be prohibited unless the employer can demonstate that methods less likely to results in asbestos fiber release are not feasible.
D. Asbestos-containing material removed, **SHALL** be immediately bagged or wrapped, or kept wetted until transferred to a closed receptacle, no later than the end of the work shift.

The employer may use **ALTERNATIVE OR MODIFIED ENGINEERING AND WORK PRACTICE CONTROLS** if the following provisions are complied with.

SEMINOTE-(Flooring, roofing, siding, shingles, gaskets, ect.)

A. The employer **SHALL** demonstate by data representing employee exposure during the use

of such method under conditions which closely resemble the conditions under which the method is to be used, that employee exposure will not exceed the PELs under any anticipated circumstances.

B. A competent person **SHALL** evaluate the work area, the projected work practices and the engineering controls, and **SHALL** cerify in writing, that the different or modified controls are adequate to reduce direct and indirect employee exposure to below the PELs under all expected conditions of use and that the method meets the requirements of this standard. The evaluation **SHALL** include and be based on data representing employee exposure during the use of such method under conditions which closely resemble the conditions under which the method is to be used for the current job, and by employees whose training and experience are equivalent to employees who are to perform the current job.

WORK PERFORMANCE REQUIREMNTS FOR CLASS III

WORK PRACTICES & ENGINEERING CONTROLS FOR CLASS III ASBESTOS WORK

Definition: Class III asbestos work means repair and maintenance operations, where ACM, including thermal system insulation and surfacing material, is likely to be disturbed.

Disturbance means contact which releases fibers from ACM or PACM or debris containing ACM or PACM. This term includes activities that disrupt the matrix of ACM and PACM, render ACM or PACM friable, or generate visible debris.

Disturbance includes cutting away small amountsof ACM and PACM, no greater than the amount which can be contained in one standard sized glovebag or wastebag in order to access a building component.

Class III asbestos work **SHALL** be conducted using engineering and work practice controls which minimize the exposure to employees performing the asbestos work and to bystander employees.

A. The work **SHALL** be performed using wet methods.
B. To the extent feasible, the work **SHALL** be performed using local exhaust ventilation.
C. Where the disturbance involves drilling, cutting, abrading, sanding, chipping, breaking, or sawing of thermal system insulation or surfacing material, the employer **SHALL** use plastic sheeting, and **SHALL** isolate the operation using mini-enclosures or glovebag systems, or another isolation methods.
D. Employees performing Class III jobs, which involve the disturbance of thermal system insulation (TSI) or surfacing material (SM), **SHALL** wear respirators which are selected, used and fitted.

ENCAPSULATION

ENCAPSULATION

A. GENERAL

Encapsulation will be accomplished by penetration to the substrate if possible, and surface build-up for friable asbestos and by surface adhesion and build-up for cementituous asbestos.

B. METHOD OF ENCAPSULATION

1. Carefully hand pick all loose or hanging insulation material prior to spraying operations. Place all removed material in plastic bags for proper disposal as described previously.

2. Application: The coating shall be applied by airless spray gun. Pressures and nozzle orifice shall be as recommended by the sealant manufacturer. Past experience indicates a pressure of between 1200 and 1800 PSI will be necessary.

3. Apply two coats, as appropriate, per the specified dilution ratios of the approved encapsulating agent to all of the soft asbestos containing material.
   a. First coat diluted 50% (clean in color) is intended to penetrate the surface of the asbestos material to the maximum extent possible, acting as a primer coat.

   NOTE: Two applications of the diluted encapsulant may be required in order to achieve the maximum penetration.

   Each successive coat will be applied in the opposite direction to the previous coat so that a cross-hatch pattern is developed.

   b. Second coat, full strength, (white in color) is to be applied uniformly to achieve an even application of the sealant, thoroughly covering the asbestos material. Application rate shall not exceed 50 square feet per gallon overall.

   c. Overall pentration of the sealant shall be to the maximum extent possible. Penetration will vary with the type of material (friable or cementitious), substrate, density and previous applicaton of paint or other sealant.

4. The Company shall, by applying any sealer, assure himself that the application of the sealer will not cause the friable base material to fail and allow the sealed material to fall of its own weight. Should the Company doubt the ability of the base material to support the sealant he shall request direction from the Owner before proceeding with the encapsulation work. If failure should occur during process of the encapsulation work, the Company shall **STOP** work and notify the Owner immediately.

5. If required by the Owner, the company shall receive approval of the first coat from the field inspector prior to the application of the second coat.

6. Manufacturers printed instructons for use of this product as an asbestos coating shall be strictly observed.

7. Asbestos material which has broken away from the surface, prior to, during or after the spraying shall be immediately packed into 6 mil plastic bags and sealed for transport. During the operation, periodic clean-up of asbestos materials is required.

8. The accumulation of fallen or dislodged material on the floor and constant traffic in the

area will cause excessive airborne concentrations of the asbestos fibers. The periodic clean-up and bagging of materials will prevent higher than normal concentrations of asbestos fibers.

9. During the progress of the entire encapsulation procedure and as otherwise listed, air samples shall be taken as specified elsewhere.

10. The company sball proceed with the final clean-up and decontamination operation as specified,

FINAL DECONTAMINATION OF WORK AREA

FINAL DECONTAMINATION OF WORK AREA

A. Asbestos debris shall be double bagged in appropriately labeled 6 mil polyethylene bags.

B. Bags shall be wiped with clean damp cloths prior to transportation to approved disposal site.

C. Plastic barriers, as specified, shall be carefully removed, folded inward, rolled into bundles and bagged for disposal.

D. During decontamination of the work area (after asbestos removal), the Company sball remove the polyethylene sheets from walls and floors only. The windows and doors shall remain sealed and any HEPA filtration system shall remain in service until final acceptance.

E. Hard surfaced flooring such as concrete, terrazzo, V.A.T. and ceramic tile, shall be set mopped, allowed to dry, and damp mopped a second time with clean mop heads.

F. Walls, furniture and equipment (which remained in work area during work operations), windows and other surfaces shall be thoroughly cleaned with damp cloths.

G. If possible, carpeting should be disposed of or cleaned with a HEPA type vacuum cleaner. CONVENTIONAL VACUUMS WILL NOT BE PERMITTED.

H. All barriers shall be left intact until the area is inspected by the independent monitoring firm. When the area is visually clean, the Company shall encapsulate all surfaces. The monitoring firm will collect final clearance air samples (number to be determined by the size of the project) after the encapsulation is dry or after the space has undergone 90 air changes.

I. The air monitoring specialist shall take two air samples as specified herein as soon as feasible but no longer than eight (8) hours after completion of all cleaning work, or as may be required by the Owner.

Should air tests following final clean-up indicate a fiber count greater than the initial pre-job monitoring level, the Company shall, at his own expense, reclean work areas until additional air tests indicate a fiber count less than or equal to the pre-job monitoring level.

J. All mop heads and cleaning cloths are to be discarded in the same manner as asbestos waste.

K. Clean all glass inside of work areas.

L. After the work area is found to be in compliance; all windows, doors, louvers, etc., shall be unsealed and the sheeting, tape, etc., shall be disposed of as heretofore prescribed.

M. All plastic sheeting, tape cleaning material, clothing, and all other disposable material or items used in the work area shall be packed into sealable plastic bags (6 mil minimum) for transport.

N. Visually inspect all surfaces in the work area and remove all traces of waste materials, smudges, and other foreign matter. Droppings, spots, stains and dirt caused by cleaning agents or tools shall likewise be completely removed.

CORPORATE ENVIRONMENTAL POLICY

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CORPORATE ENVIRONMENTAL POLICY

Astec Environmental, Inc. is committed to continued excellence, leadership, and stewardship in protecting the environment. Environmental protection is a primary management responsibility, as well as the responsibility of every employee.

In keeping with this policy, our objective as a company is to reduce waste and achieve minimal adverse impact on air, water, and land through excellence in environmental control.

Our Environmental protection is a line responsibility and an important measure of employee performance. In addition, every employee is responsible for environmental protection in the same manner he or she is for safety.

Reducing or eliminating the generation of waste has been and continues to be a prime consideration in research, process design and operations; and is viewed by management like safety, yield, and loss prevention.

Source reduction/waste minimization (re-use and re-cycling) of materials has been and will continue to be given first consideration prior to classification and disposal of waste.

Debbie K. Livingston

Debbie K. Livingston, President

EMERGENCY PROCEDURE

EMERGENCY PROCEDURES

PROCEDURES FOR SPLITTING OR SPILLING OF GLOVEBAG OR ASBESTOS WASTE OUTSIDE A CONTAINMENT AREA:

- Put waste in bags using appropriate methods.
- Mist air and vacuum area immediately.
- Vacuum an area of 10 square feet surrounding the spilled debris
- Wet wipe the complete vacuumed area.
- Notify technician of hygienist of the spillage.

PROCEDURES FOR BREACH IN CONTAINMENT BARRIER:

- Make immediate repair of the containment breach.
- Shutdown all removal if in progress.
- Wet down the area near the breach.
- Perform all necessary work needed to clean the area nearest the breach.
- Inform technician or hygienist on the project of the containment breach.

PROCEDURES FOR LIFE THREATENING EMPLOYEE INJURY:

- In any life threatening injury situation, the employee will be removed immediately from the containment area without regard to decontamination procedures.
- All available first aid practices and procedures will be used as an immediate response.
- An immediate 911 call will be made.
- It will be the responsibility of supervisory personnel to make sure immediate emergency responses are made to all appropriate medical personnel, company personnel and to the injured employee's family.

PROCEDURES TO BE FOLLOWED AT JOB SITE IN THE EVENT OF:

1. **FIRE**: The fire hazard supersedes the asbestos hazard. All workers shall be evacuated immediately, and if necessary, plastic seals may be violated in order to assure workers safety. Fire extinguishers, fire exits, and other fire considerations are covered in the Company's Worker Safety Training Program.

2. **LIFE THREATENING BODILY INSIDE CONTAINMENT AREA:** Emergency medical personnel will be summoned to the job site and allowed the fastest route to the victim. Upon establishing medical attention, the work area will be evacuated and police notified.

3. **MAJOR BREACH IN CONAINMENT BARRIER:** Immediately re-establish barrier, summon a work crew, and begin emergency clean-up procedures. Air samples will then be taken to verify that no friable asbestos is escaping into the environment.

4. **UNEXPECTED AIRBORNE CONTAMINATION DETECTION IN OTHER PARTS OF BUILDING:** All work shall cease immediately; the breached barrier shall be located and re-established as all personnel in the contaminted area are evacuated; air samples will then be taken to verify that no friable asbestos is escaping into the enviroment.

5. **SPLITTING/SPILLING OF ASBESTOS DEBRIS BAGS ENROUTE TO DUMPSTER OR WASTE TRUCK:** The debris shall be immediately wet down by trained personnel wearing suits and proper respiratory equipment as emergency clean-up procedures are followed. Air samples will then be taken to verify that no friable asbestos has escaped into the environment.

EVACUATION PROCEDURES FOR INJURED PERSONNEL:

In The Event Of Serious Accidents Involving The Company, The Following Is An Outline Of The Evacuation Procedures:

1. In the event of a serious accident, the workman is not to be moved under any circumstances; the only exception being fire. The respirator should be removed from the injured only if impaired breathing is readily observed.

2. An ambulance service notified of the existence of the work started shall be contacted; respirators will be provided for ambulance personnel upon arrival at the work site. Decontamination procedures will be waived at this time upon exit of work areas.

3. The supervisor shall contact the hospital or emergency clinic (previously notified of the existence of the project) and inform them that our employee is being transported.

4. If Decontamination Procedures were waived, the Supervisor will notify the emergency personnel before any emergency treatment is administered.

5. In the event of a minor accident, the Supervisor will see that Decontamination Procedures are followed. Transportation to the emergency clinic will be provided by the Company.

6. In the event of an accident involving death of one of the Company's employees, the Supervisor will evacuate the project area; inform OSHA, local police, and State or Federal Agencies in charge of the investigation and enforcement of work procedures. The work will not resume until the Company is authorized to do so.

7. The Architect/Engineer and Owner will be notified in writing of any major accident requiring medical attention.

8. Emergency exits will be clearly marked within the work area. Arrows leading from different work areas to emergency exit will be clearly marked.

USE OF NEGATIVE PRESSURE SYSTEMS

RECOMMENDED SPECIFICATIONS AND OPERATING PROCEDURES FOR THE USE OF NEGATIVE PRESSURE SYSTEMS FOR ASBESTOS ABATEMENT

This appendix provides guidelines for the use of negative pressure systems in removing asbestos-containing materials from buildings. A negative pressure system is one in which static pressure in an enclosed work area is lower than that of the environment outside the containment barriers.

The pressure gradient is maintained by moving air from the work area to the environment outside the area via powered exhaust equipment at a rate that will support the desired air flow and pressure differential. Thus, the air moves into the work area through designated access spaces and any other barrier openings. Exhaust air is filtered by a high-efficiency particulate air (HEPA) filter to remove asbestos fibers.

The use of negative pressure during asbestos removal protects against large-scale release of fibers to the surrounding area in case of a breach in the containment barrier. A negative pressure system also can reduce the concentration of airborne asbestos in the work area by increasing the dilution ventilation rate (i.e., diluting contaminated air in the work area with uncontaminated air from outside) and exhausting contaminated air through HEPA filters. The circulation of fresh air through the work area reportedly also improves worker comfort, which may aid the removal process by increasing job productivity.

Lead in Construction

Background

Although Occupational Safety and Health Administration (OSHA) regulations for occupational lead exposure have been in effect since 1971 for the construction and general industries, the agency recognized the need to provide better protection and revised the regulations for general industry in 1978. The 1978 lead standard, however, excluded the construction industry from coverage because of insufficient information regarding lead use in construction.

In 1990, the National Institute for Occupational Safety and Health (NIOSH) set a national goal to eliminate worker exposures resulting in blood lead concentrations greater than 25 micrograms per deciliter (25 µg/dl) of whole blood. Consequently, OSHA began developing a proposal for a comprehensive standard regulating occupational exposure to lead in construction. In October 1992, the Congress passed Section 1031 of Title X of the Housing and Community Development Act of 1992 (P.L. 102-550) requiring OSHA to issue an interim final lead standard for the construction industry, effective until OSHA issues a final standard.

The interim final rule, published on May 4, 1993,[1] amends the OSHA standards for occupational health and environmental controls in Subpart D of Title 29 *Code of Federal Regulations* (CFR) 1926 by adding a new section 1926.62, containing employee protection requirements for construction workers exposed to lead.

Health Hazards of Lead Exposure

Pure lead (Pb) is a heavy metal (at room temperature and pressure) and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.

When absorbed into the body in certain doses lead is toxic. It can be absorbed into the body by inhalation and ingestion. Except for certain organic lead compounds not covered by this standard, lead is not absorbed significantly through the skin. When scattered through the air as a dust, fume, or mist, lead can be inhaled and absorbed through the lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. Lead also can be absorbed through the digestive system if it enters the mouth and is ingested.

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[1] *Federal Register* 58(84):26590-26649, May 4, 1993.

A significant portion of the lead inhaled or ingested gets into the blood stream. Once in the blood stream, lead is circulated through the body and stored in various organs and body tissues. Some of this lead is quickly filtered out of the body and excreted, but some remains in the blood and tissues. As exposure continues, the amount stored will increase if the body is absorbing more lead than it is excreting. The lead stored in the tissues can slowly cause irreversible damage, first to individual cells, then to organs and whole body systems.

Lead adversely affects numerous body systems and causes forms of health impairment and disease that arise after periods of exposure as short as days (acute exposure) or as long as several years (chronic overexposure). A short-term dose of lead exposure can lead to acute encephalopathy, a condition affecting the brain that develops quickly into seizures, coma, and death from cardiorespiratory arrest. Short-term occupational exposures of this type are highly unusual, but not impossible. Similar forms of encephalopathy, however, may arise from extended chronic exposure to lower doses of lead. Consequently, there is no sharp distinction between rapidly developing acute effects of lead and longer term chronic effects.

Long-term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems. Some common symptoms include the following:

loss of appetite	metallic taste in the mouth	anxiety
constipation	weakness	pallor
excessive tiredness	nervous irritability	insomnia
headache	hyperactivity	numbness
fine tremors	muscle and joint pain or soreness	dizziness
colic with severe abdominal pain		

Damage to the central nervous system in general and the brain in particular is one of the most severe forms of lead poisoning. Chronic overexposure to lead also significantly impairs the reproductive systems of both men and women. Lead can alter the structure of sperm cells—raising the risk of birth defects—and there is evidence of miscarriage and stillbirth in women exposed to lead or whose husbands have been exposed to lead. Children born of parents who

were exposed to excess lead levels are more likely to have birth defects, mental retardation, behavioral disorders, or to die during the first year of childhood.

The interim OSHA standard aims to reduce the exposure to lead for construction workers. The most significant way to achieve this is by lowering the permissible exposure limit (PEL) from 200 micrograms per cubic meter of air (200 $\mu g/m^3$) as an 8-hour time weighted average (TWA) to 50 $\mu g/m^3$.

Scope and Application

For the purpose of this standard, lead includes metallic lead, all inorganic lead compounds, and organic lead soaps.

OSHA's lead in construction standard applies to all construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair—including painting and decorating—is included. Under this standard, construction includes, but is not limited to, the following:.

- demolition or salvage of structures where lead or materials containing lead are present;
- removal or encapsulation of materials containing lead;
- new construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead;
- installation of products containing lead;
- lead contamination from emergency cleanup;
- transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- maintenance operations associated with construction activities described above.

Provisions of the Standard

The standard establishes maximum limits of exposure to lead for all workers covered, including a permissible exposure limit and action level.

Permissible Exposure Limit

The permissible exposure limit, or PEL, sets the maximum worker exposure to lead. For example, no employee may be exposed to lead at airborne concentrations greater than 50 $\mu g/m^3$ averaged over an 8-hour period. If employees are exposed to lead for more than 8 hours in any workday, the following formula must be used to reduce exposure as a TWA:

Employee exposure (in $\mu g/m^3$)=400 divided by hours worked in the day.[2]

Action Level

An action level is the level at which an employer must begin certain compliance activities outlined in the standard. The action level, regardless of respirator use, for the lead in construction standard is an airborne concentration of 30 $\mu g/m^3$ calculated as an 8-hour TWA.

Exposure Monitoring and Medical Surveillance

Assessing Exposures

Where initial employee exposure[3] is at or above the action level, the employer must collect personal samples representative of a full work shift, including at least one sample for each shift or for the shift with the highest exposure level for each job classification in each work area. These samples must represent the monitored employee's regular, daily exposure to lead. Measurements made within the previous 12 months also may be used to determine how far above the action level employee exposure may be.

An initial determination of whether employees are exposed to lead at or above the action level and the results of that determination must be made available based on the following:

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[2]When respirators are used to limit employee exposure to lead, the measured exposure can be considered at the level provided by the protection factor of the respirator for those periods worn. Those periods may be averaged with exposure levels during periods when respirators are not worn to determine the employee's daily TWA exposure.

[3]For the purpose of this section, exposure is considered to be the level occurring if the employee were not using a respirator.

- any information, observation, or calculation that indicates employee exposure to lead;
- any previous measurements of airborne lead;
- any employee complaints of symptoms attributable to lead exposure; and
- objective data regarding materials, processes, or operations.

The employer may discontinue required monitoring when at least two consecutive measurements—taken at least 7 days apart—are below the action level.

Monitoring for the initial determination whether employers are exposed at or above the action level may be limited to a representative sample of those employees exposed to the greatest concentrations of airborne lead. Measurements made within the preceding 12 months, which were performed by the same employer and applicable to the same employee tasks, may be used.

The employer must establish and maintain an accurate record documenting the nature and relevancy of previous exposure data. Instead of performing initial monitoring, the employer may rely on objective data that demonstrate that a particular lead-containing material or product does not result in employee exposure at or above the action level when processing, using, or handling.

Until the employer performs an exposure assessment and documents that employees are not exposed above the PEL, the employer must treat employees performing certain operations as if they were exposed above the PEL. This means providing respiratory protection, protective work clothing and equipment, change areas, hand washing facilities, biological monitoring, and training—as required by the standard—for the following tasks:

- manual demolition of structures (e.g., dry wall), manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- abrasive blasting enclosure movement and removal;
- power tool cleaning;
- lead burning;
- using lead-containing mortar or spray painting with lead-containing paint;
- abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;

- cleanup activities where dry expendable abrasives are used; and
- any other task the employer believes may cause exposures in excess of the PEL.

For an initial determination that indicates no employee is exposed at or above the action level (30 $\mu g/m^3$), the employer must keep a written record of the determination, including the date, location within the work site, and the name and social security number of each monitored employee. (See "Recordkeeping" section elsewhere in this publication for more information.)

Monitoring and Observing

If the initial determination proves employee exposure is below the action level, further exposure determination need not be repeated unless there is a change in processes or controls.

If employee exposure is at or above the action level, but at or below the PEL, the employer must perform monitoring at least every 6 months and continue until at least two consecutive measurements—taken at least 7 days apart—are below the action level.

If employee exposure is above the PEL, the employer must perform monitoring quarterly and continue until at least two consecutive measurements—taken at least 7 days apart—are at or below the PEL but at or above the action level. The employer then must repeat and continue monitoring every 6 months to bring the exposure to or below the action level as described above.

When there has been a change of equipment, process, control, personnel, or a new task has been initiated that could increase employee lead exposure at or above the action level, the employer must conduct additional monitoring.

The employer must notify each employee in writing of employee exposure assessment results within 5 working days after their receipt. Whenever the results indicate that the representative employee exposure, without the use of respirators, is at or above the PEL, the employer must include a written notice stating that the employee's exposure was at or above that level and describing the corrective action taken or to be taken to reduce exposure to below that level.

The employer must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee lead exposure. The employer must provide the observer with and ensure the use of respirators and protective clothing and equipment when monitoring requires entry into an area where they are necessary. The observer, who must comply with all applicable safety and health procedures, is entitled to receive an explanation of the measurement procedures, observe all steps related to lead-monitoring performed at the place of exposure, and record the results obtained or receive copies of the results when returned by the laboratory.

Medical Surveillance and Multiple Physicians' Review

Employers must make available, at no cost to the employee, initial medical surveillance for employees occupationally exposed to lead at or above the action level for more than 1 day per year. For employees with exposure more than 30 days per year and who have a blood lead level over 40 µg/dl, full medical surveillance is required. All medical exams must be performed by or under the supervision of a licensed physician. In addition, full medical examinations with extensive testing must be made available to those employees exposed at or above the action level for more than 30 days per year.

Initial medical surveillance must include biological monitoring in the form of blood sampling and analysis for lead or zinc protoporphyrin levels. Biological monitoring tests must be conducted in an OSHA-approved lab and be accurate (to a confidence level of 95 percent) within plus or minus 15 percent, or 6 µg/dl, whichever is greater. The tests must be performed as follows:

- at least every 2 months for the first 6 months and every 6 months thereafter for employees exposed at or above the action level for more than 30 days annually;
- at least every 2 months for employees whose last blood sampling and analysis indicated a blood lead level at or above 40 µg/dl; and
- at least monthly during the removal period for each employee removed from exposure due to an elevated blood lead level.

Within 5 days of receiving biological monitoring results, the employer must notify each employee, in writing, of his/her blood lead levels. Employees whose blood lead levels exceed 50 µg/dl must be removed temporarily with medical removal protection benefits, such as pay, seniority, and other rights.

When the results of a blood lead level test indicate the level exceeds the criteria for medical removal, the employer must provide a second (followup) blood sampling test within 2 weeks after receiving initial test results to confirm that removal is necessary.

Under certain limited circumstances, special drugs called chelating agents may be administered to remove circulating blood lead. Using chelation as a preventive measure—that is, to lower blood level but continue to expose a worker—is prohibited and therapeutic or diagnostic chelations of lead that are required must be done under the supervision of a licensed physician in a clinical setting. The employee must be notified in writing prior to treatment.

The employer must make available medical exams to employees exposed at or above the action level for more than 30 days per year as follows:

- at least annually for each employee whose blood lead level within the past 12 months was at or above 40 µg/dl;
- when the employee has developed signs or symptoms commonly associated with lead intoxication;
- when the employee is pregnant; and
- when medically appropriate for employees removed from lead exposure due to a sustained health risk or following a final medical determination.

Medical exams must include the following information:

- detailed work and medical histories, with particular attention to past lead exposure (occupational and nonoccupational), personal habits (smoking and hygiene), and past gastrointestinal, hematologic, renal, cardiovascular, reproductive, and neurological problems;
- a thorough physical exam, with particular attention to gums, teeth, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems; evaluation of lung function if respirators are used;
- a blood pressure measurement;
- a blood sample and analysis to determine blood lead level; hemoglobin and hematocrit determinations, red cell indices, and an exam of peripheral smear morphology; zinc protoporphyrin; blood urea nitrogen; and serum creatinine;
- a routine urinalysis with microscopic exam; and
- any lab or other test the examining physician deems necessary.

The employer must provide all examining physicians with a copy of the lead in construction standard, a description of the affected employee's duties, the employee's lead exposure level, a description of personal protective equipment used, prior blood lead determinations, and all prior written medical opinions for the employee.

The employee must receive written medical opinions from each examining or consulting physician that contain the following:

- opinions regarding any detected medical condition that could place the employee at an increased health risk from lead exposure;
- recommendations for special protective measures or limitations on the employee's exposure;
- limitations on the employee's use of respirators; and
- results of all prior blood lead determinations.

The examining physician must not reveal to the employer either by written or oral opinion any findings unrelated to the employee's occupational exposure to lead. The physician must advise the employee of any medical condition (occupational or nonoccupational) that requires further medical attention.

If the employer selects the initial physician to conduct medical exams or consultation, the employee may designate a second physician to review the findings of the first physician and to conduct exams, consultations, and tests as the second physician deems necessary. The employer must promptly notify each employee of the right to seek a second medical opinion following each medical exam or consultation conducted by the initial physician.

Until the employee (1) informs the employer of his/her intent to seek a second medical opinion and (2) initiates steps to make an appointment with a second physician (within 15 days after receipt of notification or receipt of the initial physician's written opinion), the employer may condition his/her participation in and payment for the multiple physician review mechanism. If the findings of the second physician differ from those of the initial physician, the employee and employer must work together to see that the two physicians resolve any disagreement. If no agreement is feasible, the employer and employee may designate a third physician to review findings and conduct exams, tests, and consultations to resolve the disagreement. The employer must act on the third physician's recommendations unless the employer and employee reach agreement consistent with those of at least one of the three physicians.

Medical Removal Protection

Employers must remove employees with lead exposure at or above the action level each time:

- a periodic and followup blood sampling test indicates a blood lead level at or above 50 µg/dl; and
- a final medical determination[4] indicates a detected medical condition that increases health risks from lead exposure.

Employers must return employees to their former job status when:

- two consecutive blood sampling tests indicate a blood lead level is at or below 40 µg/dl for employees removed due to a blood lead level at or above 50 µg/dl; and
- a subsequent final medical determination indicates there is no longer a detected medical condition that increases health risks from lead exposure.

The employer must remove any limitations placed on employees or end any special protective measures when a subsequent final medical determination indicates they are no longer necessary.

When the multiple physicians' review mechanism has not yet resulted in a final medical determination, the employer must:

- remove employees from lead exposure, provide special protective measures, or place limitations on employees; or
- return employees to their former job status; end special protective measures; and remove limitations **except** when the initial removal, special protection, or limitation resulted from a medical determination different from the finding of the initial physician, or when the employee has been on removal status for the preceding 18 months due to an elevated blood lead level and must await final medical determination.

The employer must provide up to 18 months of medical removal protection benefits each time an employee is removed from lead exposure. As long as the position/job exists, the employer must maintain the earnings, seniority, and other employment rights and benefits as though the employee had not been removed from the lead exposure. The employer may condition medical removal

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[4]Refers to the written medical opinion on the employee's health status or the outcome of the multiple physician review mechanism.

protection benefits on the employee's participation in followup medical surveillance.

If a removed employee files a worker's compensation claim for a lead-related disability, the employer must continue medical removal protection benefits pending the disposition of the claim. The employer's obligation will be reduced to the extent that the employee received compensation for earnings lost during removal either from a publicly or employer-funded compensation program or from employment with another employer during the employee's removal.

Information and Training

The employer must inform employees about lead hazards according to the requirement of OSHA's Hazard Communication standard for the construction industry, 29 CFR 1926.59, including—but not limited to—the requirements for warning signs and labels, material safety data sheets (MSDSs), and employee information and training.

For example, the following warning signs must be posted in each work area where employee exposure to lead is above the PEL:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

All signs must be well lit and kept clean so that they are easily visible. Statements that contradict or detract from the signs' meaning are prohibited. Signs required by other statutes, regulations, or ordinances, however, may be posted in addition to, or in combination with, this sign.

The employer must institute a training program and ensure participation by all employees subject to exposure to lead or lead compounds at or above the action level on any day. Initial training must be provided prior to initial job assignment or the startup date for this requirement, whichever comes last. Training must be repeated at least annually and must include the following:

- the content of the standard and its appendices;
- the specific nature of operations that could lead to lead exposure above the action level;

- the purpose, proper selection, fit, use, and limitations of respirators;
- the purpose and a description of the medical surveillance program, and the medical removal protection program;
- the engineering and work practice controls associated with employees' job assignments;
- the contents of the compliance plan in effect;
- instructions to employees that chelating agents must not be used routinely to remove lead from their bodies and when necessary only under medical supervision; and
- the right to access records under "Access to Employee Exposure and Medical Records," 29 CFR 1910.20.

All materials relating to the training program and a copy of the standard must be made readily available to all employees.

Engineering, Work Practice, and Administrative Controls

ıe lead in construction standard requires employers to use—when feasible—engineering, work practice, and administrative controls to reduce and maintain employee lead exposure to or below the PEL. When all feasible controls have been instituted but are not sufficient to reduce employee exposure to or below the PEL, they must be used to reduce exposure to the lowest feasible level and supplemented by respirators.

Engineering controls reduce employee exposure in the workplace either by removing or isolating the hazard or isolating the worker from exposure through the use of technology. Under the lead in construction standard, mechanical ventilation may be used to control lead exposure. If used, the employer must evaluate, as necessary, the mechanical performance of the system in controlling exposure to maintain its effectiveness.

Work practice controls reduce the likelihood of exposure by altering the manner in which a task is performed. Safe work practices under the lead in construction standard include but are not limited to maintaining separate hygiene facilities (i.e., change rooms, showers, hand washing facilities, and lunch areas) and requiring proper housekeeping practices (i.e., cleanup methods).

Housekeeping

All surfaces must be maintained as free as practicable of accumulations of lead. Compressed air must not be used to cleanup floors and other surfaces where lead accumulates unless it is used in conjunction with a ventilation system designed to capture the airborne dust created by the

compressed air. Shoveling, dry or wet sweeping, and brushing must be used **only** where vacuuming and other equally effective methods have been tried and found to be ineffective.

Vacuums must be equipped with high-efficiency particulate air (HEPA) filters and used and emptied in a manner that minimizes the reentry of lead into the workplace.

Hygiene Facilities and Practices

Food, beverages, tobacco products, and cosmetics are prohibited in all areas where employees are exposed to lead above the PEL regardless of respirator use.

Employers must provide clean change areas and hand washing and shower facilities, where feasible, for employees who work in areas where airborne exposure to lead is above the PEL regardless of respirator use, or as interim protection (except for showers) for employees performing tasks specified in the "Assessing Exposures" section of this publication. Change areas must be equipped with separate storage facilities for protective work clothing and equipment and for street clothes to prevent cross-contamination. Shower facilities must contain an adequate supply of cleansing agents and towels for those employees required to shower. Employees required to shower must not leave the workplace wearing any protective clothing or equipment worn during the work shift.

Where showers are not provided by the employer, employees must wash their hands and face at the end of the workshift. The employer must provide adequate handwashing facilities—including an adequate supply of water, soap, and clean towels—for employees.

Employers also must provide lunchroom facilities or eating areas for employees who work in areas where their airborne exposure to lead is above the PEL regardless of respirator use. These facilities must be as free as practicable from lead contamination and be easily accessible to all employees. Employees must wash their hands and face prior to eating, drinking, smoking or applying cosmetics in eating

areas. In addition, employees are prohibited from entering these areas when wearing personal protective clothing or equipment unless surface lead dust has been removed by vacuuming, downdraft booth, or other cleaning method.

Administrative Controls can be used to reduce employee exposure by removing the employee from the hazard (i.e., job rotation). If administrative controls are used to reduce employee exposure to lead, the employer must establish and implement a job rotation schedule. The program must identify by name or number each affected employee; specify the duration and exposure level at each job or work station where each affected employee is located; and include other information useful to assess the reliability of administrative controls to reduce employee lead exposures.

Respirators

The employer must provide respiratory protection, at no cost to the employee, and must ensure its use when:

- employee exposure to lead exceeds the PEL;
- engineering and work practice controls are not sufficient to reduce exposure levels to or below the PEL;
- an employee requests a respirator; and
- as interim protection for employees performing the tasks listed under the "Assessing Exposures" section of this publication and section (d)(2) of the standard.

An appropriate respirator, which has been approved by the Mine Safety and Health Administration (MSHA) and NIOSH must be selected to protect against lead dust, fumes, and mists. (See the table for recommended respiratory protection.)

Respirators issued to employees must exhibit minimum facepiece leakage and fit the employee properly. Employers must perform either quantitative or qualitative (for half-mask respirators only) face fit tests at the time of initial fitting and at least every 6 months for each employee wearing a negative-pressure respirator. If the employee shows signs of breathing difficulty during the fit test or during use, the employer must make available an examination in accordance with the medical surveillance requirements of the standard.

Respiratory Protection for Lead Aerosols

Airborne Concentration of Lead or Condition of Use	Required Respirator*
Not in excess of 500 $\mu g/m^3$	Half-mask air-purifying respirator with high-efficiency filters.**,***
	Half-mask supplied-air respirator operated in demand (negative-pressure) mode.
Not in excess of 1,250 $\mu g/m^3$	Loose fitting hood or helmet powered air-purifying respirator with high-efficiency filters.***
	Hoods or helmet supplied-air respirator operated in continuous-flow mode—for example, type CE abrasive blasting respirators operated in a continuous-flow mode.
Not in excess of 2,500 $\mu g/m^3$	Full-facepiece air-purifying respirator with high-efficiency filters.***
	Tight-fitting powered air-purifying respirator with high-efficiency filters.***
	Full-facepiece supplied-air respirator operated in demand mode.
	Half-mask or full-facepiece supplied-air respirator operated in continuous-flow mode.
	Full-facepiece self-contained breathing apparatus (SCBA) operated in demand mode.
Not in excess of 50,000 $\mu g/m^3$	Half-mask supplied-air respirator operated in pressure-demand or other positive-pressure mode.
Not in excess of 100,000 $\mu g/m^3$	Full-facepiece supplied-air respirator operated in pressure-demand or other positive-pressure mode—for example, type CE abrasive blasting respirators operated in a positive-pressure mode.
Greater than 100,000 $\mu g/m^3$, unknown concentration, or firefighting	Full-facepiece SCBA operated in pressure-demand or other positive-pressure mode.

Source: "Lead Exposure in Construction; Interim Final Rule," *Federal Register* 58(84):26630, May 4, 1993.
*Respirators specified for higher concentrations can be used at lower concentrations of lead.
**Full facepiece is required if the lead aerosols cause eye or skin irritation at the use concentrations.
***A high-efficiency particulate air filter means a filter that is 99.97 percent efficient against particles of 0.3 micron or larger.

Employees who use filter respirators must be permitted to change the filter elements whenever an increase in breathing resistance is detected and must be allowed to leave work areas to wash their faces and respirator facepieces whenever necessary to prevent skin irritation associated with respirator use.

A respiratory protection program is required in accordance with 29 CFR 1910.134.

Protective Clothing and Equipment

The employer must provide at no cost to the employee and ensure the proper use of personal protective equipment where employees are exposed to lead above the PEL, are exposed to lead compounds that may cause skin or eye irritation, or as interim protection for employees performing tasks specified in the "Assessing Exposures" section of this publication—regardless of respirator use. Appropriate personal protective work clothing and equipment, which prevent contamination of employees and their garments, include but are not limited to coveralls or full-body work clothing; gloves, hats, and shoes or disposable coverlets; and face shields, vented goggles, or other appropriate protective equipment that complies with 29 CFR 1910.133.

The employer is required to provide clean and dry protective clothing at least weekly, and daily to employees whose exposure levels—regardless of respirator use—are above 200 $\mu g/m^3$ of lead as an 8-hour TWA.

To maintain the effectiveness of the personal protective clothing and equipment, the employer must

- clean, launder, or dispose of contaminated protective clothing;
- repair or replace torn or defective clothing or equipment; and
- ensure all protective clothing is removed at the end of the work shift in change areas provided for that purpose.

All contaminated protective clothing and equipment to be cleaned, laundered, or disposed of must be placed in a closed container in the change area to prevent dispersion of lead outside the container. Blowing, shaking, or otherwise dispersing lead into the air **is prohibited** for removing lead from contaminated materials. Containers of contaminated personal protective clothing and equipment must be labelled as follows:

CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD-CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

The employer also must inform, in writing, any person who cleans or launders the protective clothing or equipment of the potentially harmful effects of lead exposure.

Recordkeeping

The employer must establish and maintain an accurate record of all monitoring and other data used to conduct employee exposure assessments as required by this standard and in accordance with provisions in 29 CFR 1910.120. The following must be included in **exposure assessment** records:

- the dates, number, duration, location, and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure;
- a description of the sampling and analytical methods used and evidence of their accuracy;
- the type of respiratory protection worn, if any;
- the name, social security number, and job classification of the monitored employee and all others whose exposure the measurement represents; and
- environmental variables that could affect the measurement of employee exposure.

The employer must maintain an accurate record for each employee subject to **medical surveillance**, including:

- the name, social security number, and description of the employee's duties;
- a copy of the physician's written opinions;
- the results, as supplied to the examining physician, of any airborne exposure monitoring done for the representative employee and all others represented; and
- any employee medical complaints related to lead exposure.

In addition, the employer must keep or ensure that the examining physician keeps the following **medical records**:

- a copy of the medical examination results including medical and work history;
- a description of the laboratory procedures and a copy of any guidelines used to interpret the test results; and
- a copy of the results of biological monitoring.

The employer must maintain—for at least the duration of employment—an accurate record for each employee subject to **medical removal**, including:

- the name and social security number of the employee;
- the date on each occasion that the employee was removed from current lead exposure and the corresponding date which the employee was returned to former job status;
- a brief explanation of how each removal was or is being accomplished; and
- a statement about each removal indicating whether the reason for removal was an elevated blood level.

The employer must maintain a record of any objective data relied on to determine initial exposure if it was used in lieu of exposure monitoring for exposure assessment purposes.

The employer must make all records—including exposure monitoring, medical removal, and medical records—available upon request to affected employees, former employees, and their designated representatives and to the OSHA Assistant Secretary and the Director of NIOSH for examination and copying in accordance with 29 CFR 1910.20.

When an employer ceases to do business, the successor employer must receive and retain all required records. If no successor is available, these records must be sent to the Director of NIOSH.

Other Sources of OSHA Assistance

Safety and Health Management Guidelines

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. To assist employers and employees in developing effective safety and health programs, OSHA published recommended *Safety and Health Management*

Guidelines (January 26, 1989, 54 FR:3908-3916). These voluntary guidelines apply to all places of employment covered by OSHA.

The guidelines identify four general elements critical to the development of a successful safety and health management program:

- management commitment and employee involvement,
- work site analysis,
- hazard prevention and control, and
- safety and health training.

The guidelines recommend specific actions, under each of these general elements, to achieve an effective safety and health program.

State Programs

The Occupational Safety and Health Act of 1970 encourages states to develop and operate their own job safety and health plans. OSHA approves and monitors these plans. There are currently 25 state plan states—23 of these states administer plans covering both private and public (state and local government) employment; the other 2 states, Connecticut and New York, cover the public sector only.

The 25 states and territories with their own OSHA-approved occupational safety and health plans must adopt standards identical to, or at least as effective as, the federal standards. Until a state standard is promulgated, OSHA will provide interim enforcement assistance, as appropriate, in these states. A listing of states with approved plans appears at the end of this booklet.

Consultation Services

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is delivered by state government agencies or universities employing professional safety consultants and health consultants. Comprehensive assistance includes an appraisal of all mechanical, physical work practices, environmental hazards of the workplace, and all aspects of the

ALABAMA REFERENCE LABORATORIES, INC.
Licensure/Accreditations

State of Alabama Laboratory License	#4688
CAP Accreditation	#15535-01-01-01
CAP/AAFP (Forensic Toxicology)	#15535-01
NIDA Certification	#400
CLIA	#01D0641677
OSHA (Blood Lead Analysis)	#01-0019
Medicare Provider	#52155
Alabama Medicaid Provider	#530000400
State of Alabama Private School License (ARL School of Medical Technology)	#875

OSHA LIST OF LABORATORIES APPROVED FOR BLOOD LEAD ANALYSIS
BASED ON PROFICIENCY TESTING
1/24/94

ALABAMA

ALABAMA REFERENCE LABS INC
ATTN: QC COORDINATOR
543 S HULL ST PO BOX 4600
MONTGOMERY, AL 36103

ARIZONA

SOUTHWESTERN LABORATORIES
ATTN: GARY CARMACK, PH D
2727 W BASELINE SUITE 6
TEMPE, AZ 85283

TMCHE LABORATORY
ATTN: KEVIN JOHNSON, PH D
1011 N CRAYCROFT ROAD #201
TUCSON, AZ 85711

DAMON CLINICAL LABS
ATTN: DAVID ALTHAUS, MD
210 N 24TH ST
PHOENIX, AZ 85034

CALIFORNIA

CAL DEPT OF HEALTH
ATTN: GUIRGUIS GUIRGUIS
2151 BERKELEY WAY
BERKELEY, CA 94704

GET LABORATORY
ATTN: WENN CHEN, PH D
3131 SANTA ANITA AVE STE 888
EL MONTE, CA 91733

MEDICAL SCIENCE INSTITUTE
ATTN: O D STINSON, MD
811 S SAN FERNANDO BLVD
BURBANK, CA 91502

PHYSICIANS REFERENCE LAB
ATTN: TOXICOLOGY SUPERVISOR
15162 TRITON LANE
HUNTINGTON BEACH, CA 92649

CEDARS-SINAI MEDICAL CENTER
ATTN: STEPHEN A GELLER, MD
PO BOX 48750
LOS ANGELES, CA 90048

CALIFORNIA AUTOMATED LAB
ATTN: GERALD E AUSTIN
3219 SAN FERNANDO ROAD
LOS ANGELES, CA 90065

UCSF-SFGH METAL LABORATORY
ATTN: JOHN OSTERLOH, MD
1001 PORTRERO AVE BLDG 30 RM 3501
SAN FRANCISCO, CA 94110

VALLEY CHILDRENS HOSPITAL
ATTN: JOHN E SHERWIN, PH D
3151 N MILLBROOK
FRESNO, CA 93703

PACIFIC TOXICOLOGY LABS
ATTN: JAMES C PETERSON, PH D
1545 PONTIUS AVE
LOS ANGELES, CA 90025

NAVENPVNTMEDU FIVE
ATTN: R J HOLLAND, PH D
BLDG 14 NAS NORTH ISLAND
SAN DIEGO, CA 92135

Limited Lead Abatement Workplan

The execution of this plan is based on compliance with all applicable health, safety and environmental regulations that may apply to the control of lead containing materials. Regulations that may significantly affect the execution of lead abatement projects include one's issued by the occupational safety and health administration, the environmental protection agency and state and local rules and regulations.

Project Scope-

This project will involve the removal of lead components from existing exterior surfaces of occupied structures or unoccupied structures or facilities. After the components are removed and the surface wiped to remove dust, a protective sealer designed for encapsulation of lead may be applied. The sealer's application instructions for surface preparation and coating should be used as guidelines. Any confliet in these instruction with regulations involving health safety or the environment should be resolved by meeting or exceeding the most stringent protective measures. In certain cases no sealer will be applied as the metal of substrate will be coated with a new protective coating. In certain cases the lead containing coatings will be removed along with the substrate such as the removal of a panel or pipe with the lead eontaining coating as intact as possible.

The primary object of this work plan is to properly remove lead paints and debris while conforming with all health and safety rules, regulations and environmental laws. Protection of the building occupants, workers, passers-by and the surrounding areas must be paramount.

Worker Protection-

All workers and supervisors involved in the planning, site preparation, controlled abatement and disposal activities must have attended and successfully completed lead worker and or lead supervisor course or courses. In addition, these employees must be medically monitored as per OSHA requirements.

Personal Protective Equipment-

Proper personal protective equipment shall be worn, including proper respiratory protection, protective clothing including, gloves, boots and other like protection to help isolate the lead containing materials and residues from the worker.

Personal Hygiene-

All workers coming in contact with lead containing materials shall have the means and opportunity to decontaminate both with HEPA vacuums and showers. Contaminated clothing shall be disposed of properly and most likely be considered hazardous waste.

All workers in the lead contaminated area or areas must decontaminate to prevent the further spread of lead containing materials. Decontamination and sufficient hands and face washing is critical prior to eating, drinking and tobacco or cosmetic use. There can be at no time food, tobacco, cosmetics, drinks or other items for personal consumption allowed in the contaminated work area. Prescription drugs should also be kept outside the contaminated work area.

Fresh, potable water should be provided outside the contaminated area and cooled as necessary to help prevent heat related problems.

Respiratory Protection-

The level of respiratory protection shall be based on hazard evaluation and proper respirator selection based on OSHA and NIOSH requirements. Fit-testing shall be conducted on those workers deemed by a physician physically fit to wear respirators. Fit checks shall be conducted each time the respirator is donned.

OHSA personnel air monitoring shall be conducted during the project when the workers are actually working in the contaminated work area. This monitoring and other hazard evaluations should determine the proper level of respiratory protection. If the respiratory protection selected does not provide adequate eye protection, protective glasses and or goggles shall be provided. While the focus of the removal is lead containing paint

additional air monitoring shall be preformed if additional agents are discovered or introduced that dictates additional monitoring as per OSHA requirements.

Area Protection-

Areas beneath, around and above the lead abatement restricted area must be controlled. Access must be restricted by physical barriers, warning signs and personal site control. Adequate hazard warnings must be posted and enforced.

Structures shall be protected in such a fashion to prevent the introduction of lead and lead containing materials from the work site and contaminated areas into the structure or on surfaces or areas not part of this abatement. This protection may be accomplished by the use of physical barriers such as polyethylene or specially constructed enclosures. It is critical that surfaces and areas where children and infants are likely to eat, sleep, play or come in normal contact with are protected and if contaminated cleaned to 200 micrograms per cubic meter or as defined by the owner or other applicable regulatory agency.

Wells, drinking water systems and bodies of water shall also be protected from project contamination. Backflow preventers must be installed on all contractor's equipment requiring connection to any water source.

Environmental Protection-

Soils, plants and animals shall also be protected from lead containing dusts and residues from this project. Soils and bodies of water in the work areas must be sufficiently covered to prevent contamination.

Pets and animals indegious to the project area or areas shall be protected. It may be adequate to remove pets and their food and water containers and any sleeping areas such as dog houses. Animals should be prevented from wandering into the contaminated area.

Air handling units such as air intakes, fans, heating and air conditioning units shall be isolated or removed to prevent contamination. Units may have to be turned off and properly sealed. Contamination that does occur to these devices must be adequately removed or the units replaced.

Water used in the project for washing, decontamination that contains lead or other hazardous materials shall be filtered and or treated prior to discharge to sanitary sewer. If on-site filtering or processing is not adequate to remove the hazardous waste(s) and or hazardous substance(s) to meet local, state and or federal discharge requirements special disposal by a permitted hazardous waste firm must be utilized. At no time should lead containing waters be discharged improperly. Different discharge standards apply depending on the treatment and discharge permits of the POTW or other waste treatment system.

Disposal of Solid Waste-

All solid wastes form this project shall comply with all local, state and federal regulations for disposal. Hazardous waste regulations may apply to wastes generated from this project and must be considered prior to waste disposal. Testing of lead containing materials prior to disposal are usually required to comply with hazardous waste regulations. Solid materials may have to be tested using a specific TCLP and liquid materials tested for total concentration or other parameters.

Tools and equipment used in the contaminated area or coming in contact with contaminated materials or substances shall be decontaminated or disposed of properly.

Environmental Monitoring-

Air monitoring shall be conducted, as was stated earlier, to meet or exceed OSHA personnel monitoring requirements.

Area air monitoring shall be conducted in the work and or contaminated area as well as adjacent areas to measure the effectiveness of control methods for airborne lead containing materials.

Wipe samples shall be conducted on surfaces adjacent to the lead project

and contaminated work area.

Soil bulk samples shall also be taken to measure the effectiveness of project control methods especially underneath the protective ground covers at the work area. Adjacent areas to the project should also be sampled to measure the effectiveness of project control methods.

Pre-project sampling is indicated for air, wipe and bulk samples to establish background levels. These backgrounds may be especially useful for wipe and bulk soil samples. Soil near lead painted structures is usually contaminated and pre-abatement testing is usually warranted. Wipe testing of public areas or the interior of homes prior to job start is also usually a good idea.

Contractor Control-

The lead abatement contractor is responsible for the control of the lead containing materials and proper site clean-up after abatement. Good site security and housekeeping are critical to the completion of a project. Since lead containing materials are often regulated as hazardous wastes special attention must be given to the specific paperwork and disposal requirements. The facility owner usually is also the generator of the waste as well as the contractor. Failure to abide by the specific EPA Resource Conservation and Recovery Act invites heavy fines and in extreme cases criminal prosecution. The Federal Clean Air Act, as amended, may also apply to lead containing dusts carried by the winds off site.

Contractor Management

The contractor will provide an accredited lead project supervisor on site during the course of the project. His responsibility will include the establishment of site control and security. He will also manage OSHA mandated safety and health controls and complete required reports and documents.

AZTEC ENVIRONMENTAL, INC.
2060 No. Sherman Ave.
Panama City, FL 32405
Tel: (904) 747-0078
Fax: (904) 784-0430

CORPORATE ENVIRONMENTAL POLICY

Aztec Environmental, Inc. is committed to continued excellence, leadership, and stewardship in protecting the environment. Environmental protection is a primary management responsibility, as well as the responsibility of every employee.

In keeping with this policy, our objective as a company is to reduce waste and achieve minimal adverse impact on air, water, and land through excellence in environmental control.

Our Environmental protection is a line responsibility and an important measure of employee performance. In addition, every employee is responsible for environmental protection in the same manner he or she is for safety.

Reducing or eliminating the generation of waste has been and continues to be a prime consideration in research, process design and operations; and is viewed by management like safety, yield, and loss prevention.

Source reduction/waste minimization (re-use and recycling) of materials has been and will continue to be given first consideration prior to classification and disposal of waste.

Debbie K. Livingston

Debbie K. Livingston, President

CONTINGENCY PLAN
FOR
LEAD ABATEMENT

CAUTION

LEAD HAZARD

KEEP OUT

DO NOT ENTER WORK AREA

AUTHORIZED PERSONNEL ONL

LEAD HAZARD SUMMARY

Inorganic lead can cause adverse health effects when inhaled or ingested.
Ingestion may occur when eating, drinking or smoking with contaminated hands.
Contaminated work clothes which are brought home can poison household members, particularly children.
Lead can cause mood changes, headache, fatigue, muscle pain, weakness, abdominal cramping, and anemia.
Permanent kidney, brain and other nerve damage may result from lead exposure.
Exposure to lead can cause decreased fertility in men and women.
Lead can damage the fetus.

HEALTH HAZARD INFORMATION

Exposure to inorganic lead can occur by inhalation of dust and fumes or ingestion of lead dust. Ingestion can occur due to eating, drinking or smoking with contaminated hands. Contaminated work clothes are a source of lead toxicity in household members (particularly children).

EMERGENCY INFORMATION

First Aid

Eye Contact: In case of eye contact, remove from exposure immediately. rinse eyes for at least fifteen minutes, occasionally lifting upper and lower lids. see a physician if irritation persists or if vision is impaired.

Skin Contact: In case of skin contact, remove from exposure immediately. remove contaminated clothing and wash skin with soap and water.

Treatment: Specific treatment is available for lead poisoning and must be administered by qualified medical personnel. Medicine, call "chelating agents" work by binding to and increasing the elimination of lead through the kidneys. These agents must not be given to workers currently working with lead (with the hope of preventing lead poisoning). Ca EDTA is the most common medicine used; BAL, dimercaprol, and penicillamine can also be used.

Clean Up of Lead Dust

Clean-up Procedures: Clean-up of lead dust should be done using a vacuum equipped with a high-efficiency particulate air (HEPA) filter; dry sweeping is never acceptable. Wet methods should always be used, even when vacuuming. Clean-up should be performed only by trained personnel who are properly protected.

CONTINGENCY PLAN for Asbestos

AZTEC ENVIRONMENTAL, INC.
2060 North Sherman Avenue
Panama City, Florida 32405
1-904-747-0078

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE CLOTHING

SAFETY

It is critical that each and every worker is able to clearly identify potentially dangerous situations and be able to deal with these dangers in an appropriate manner.

PERSONAL DECONTAMINATION

Workers must perform the entire personal decontamination procedures. This protects not only the worker from possible exposure but their families and their families and building occupants as well.

- All visible waste must be removed from work clothes while in the work area.
- In the equipment room, remove all clothing except for the respirator.
- Enter the shower wearing the respirator.
- Wash the hair, body and respirator.
- Hold breath, remove respirator and wash the face.
- Next wash and thoroughly clean the respirator.
- Remove contaminated filters from respirator and dispose of them in the container provided.
- Move into clean area, dry off and proceed to dress in street clothes.

CAUTION SIGHS AND LABELS

- **Signs:** Must be conspicuously posted at all approaches to the work area.
- **Labels:** Must be placed on all containers of waste materials containing asbestos.

HOUSEKEEPING PRACTICES

It is essential that all asbestos containing material as it is removed be kept in a wet state. Work should never proceed in such large sections that surfaces could dry before wet cleaning could be accomplished.

- A continuous application of a fine mist of amended water to the work area will help lower airborne fiber concentrations.
- Workers should help each other to remove gross material from their suits throughout the day.
- Maintain a clean equipment are and shower.
- Make sure that all boots, tools, scaffolds, ladders, etc. are cleaned of debris at the end of each work day.
- Specific workers should be assigned the duties of maintaining the negative pressure units and HEPA vacuums.
- Establish periodic inspections of the containment and negative pressure systems.
- Maintain an accurate log documenting these inspections.
- Require anyone in the work area to follow complete decontamination process when leaving the work area.

SLIPS, TRIPS AND FALLS

- Install the first layer of poly sheeting as tight and flat as possible.
- Keep electric lines off the work floor by taping them high on the wall, behind the wall plastic.
- Select a secure area out of the way of the traffic pattern for the temporary storage of waste.
- Never lay plastic floor sheeting on stairs unless they must be protected from water damage.
- All workers should wear a good quality shoe or boot.
- All workers should be on the lookout for tools, cables, equipment, etc. left lying dangerously about the work area.

BACK INJURIES

- Lifting of heavy objects should be done with your back straight and erect, letting your legs provide the lifting force.
- Never attempt to lift large or heavy objects by yourself.
- Know your limitations.

ELECTRICAL SAFETY

- Be aware at all times of ALL potential sources of electricity, as well as potential sources of grounding.
- All tools, equipment, etc. should be grounded and have cords with a 3-prong plug with a ground. NEVER cut off the grounding prong.
- Extension cords should be inspected before use.
- All extension cords should be taped high on the wall under the poly.
- Extension cords should not be secured with staples, hung from nails or suspended by wire.
- All power tools and equipment should be inspected regularly for damage, proper grounding, and integrity of the insulation.
- Use portable lighting and regularly check the system and wiring for damage.
- When working around energized wiring or equipment, wear insulated boots or shoes with rubber soles.

LADDERS AND SCAFFOLDS

- Ladders should be inspected daily and kept in good condition.
- Be sure safety feet are in good condition. Missing safety feet will cut poly.
- Keep rungs free of dirt, grease and asbestos debris.
- Extension ladders should be used with a 1:4 ratio (1 foot out for every 4 feet of elevation).
- Portable ladders should be used by only one person at a time.
- Wood or fiberglass ladders should be used to avoid the electrical hazards associated with metal ladders.
- Scaffolds should be properly set up, regularly inspected and properly maintained.
- Footing or anchorage for scaffolds should be sound, rigid and capable of carrying the maximum intended load.
- Lock the wheels while in use.

- Never attempt to move a scaffold while men are on it.

- If the scaffolding floor is from four to ten feet off the ground, guardrails have to be installed.

- All bolts should be tightened and rechecked during use.

- When you hoist materials or equipment up onto a scaffold, the law requires that a tag line be attached to the material which allows a worker on the ground to guide the material safely while it is being lifted.

- When on a scaffold, at all times pay close attention to your footing and grip.

- It is not safe practice to work on a scaffold alone.

- When climbing up or down the scaffold, always face the scaffold. Climbing or descending in a reverse position changes your center of gravity, making you more likely to fall.

- Never allow debris to accumulate to the extent it can cause you to trip.

- When working fifteen feet from the floor you should not allow the asbestos debris to fall to the floor unless you use a chute or other device.

- If you are bagging debris, be careful when lowering the bags to the floor.

- Do not overload the bag or make it so heavy that it could be potentially dangerous when it is lowered from the scaffold.

- One of the most serious situations you can encounter when working on a scaffold is the chance of contacting a live source of electricity. You must five constant attention to the possibility that you may make contact with an electrical source.

FIRE AND EXPLOSION HAZARDS

- Due to the flammable and/or explosive nature of polyethylene sheeting, bottled air, and the bottled products used in welding or cutting torches, it is important to be aware of any possible fire or explosion-inducing situations in the work area.

- All work areas will be equipped with fire extinguishers and aerosol boat horns to sound alarms.

- Workers shall be instructed in the use of alternative exits if emergency situations require this type of egress.

- Dark tape or signs should be placed on the poly containment barriers to identify the exit path.

- Polyethylene sheeting is combustible and will give off heavy smoke as the fire progresses. Sheeting should be kept away from hear sources and not be allowed to contact surfaces above 150 degrees F.

- Immediately remove any frayed or exposed electrical wires from the work area. NEVER use a damaged extension cord!

- Welding equipment or cutting torches are to be used by experienced personnel only and then under close supervision. Areas where this equipment will be used will have fire extinguishers at hand. The work will be done in as open an area as possible.

- Portable heaters used to warm the work area should be of the electrical type to avoid possible fuel explosions.

- All portable heaters should be maintained at their highest level of efficiency and repair.

- Electrical lighting should be maintained at their highest level of efficiency and repair.

- Electrical lighting should be properly cleaned and maintained to ensure maximum effectiveness.

- Of all safety hazards, we must be most careful with electricity. The sue of water around electricity is an ever present hazard.

CONFINED SPACES

- Claustrophobia is the fear of confined spaces. Since much of our work is done in confined spaces, it is good to be aware of the signs of claustrophobia. This fear can also come from wearing a respirator.

- Claustrophobia sometimes strikes a worker without warning. The Signs include:

  a. cold, clammy skin
  b. disorientation
  c. shallow, gasping breath
  d. a feeling that the walls and ceiling are closing in

- If you or a co-worker develop these signs:

  a. attempt to breath deeply to avoid panic
  b. move to an area outside the confined space
  c. attempt to reassure yourself or a co-worker that everything will be okay.
  d. most importantly, try not to panic

AIR CONTAMINANTS OTHER THAN ASBESTOS

- When working in non-asbestos demolition, it is best to wear your respirator to avoid inhaling dust particles.

- When using Type C respirators, be sure the compressor is properly set up and running smoothly before entering the work area.

- When using Type C respirators, there is the possibility of the introduction of different air contaminants into the air line (e.g., carbon monoxide). Be sure all alarms are in place and working.

- For other possible air contaminants other than asbestos when using Type C respirators, check the training section concerning Type C respirators.

- Encapsulants should be applied while wearing a respirator. The fumes emitted while applying the encapsulant may sometimes be noxious. Use with adequate ventilation.

- Amended water should be applied with adequate ventilation so that any overpowering fumes will not be ingested.

PROCEDURES FOR THE DETECTION OF UNEXPECTED AIRBORNE CONTAMINATION IN OTHER PARTS OF THE BUILDING:

- Work is stopped.

- Locate leakage source.

- Correct the leakage source.

- Remedial cleanup of any possible contamination.

- Run air test to make sure no airborne contaminate remain.

PROCEDURE FOR SPLITTING OR SPILLING OF GLOVEBAG OR ASBESTOS WASTE OUTSIDE A CONTAINMENT AREA

- Put waste in bags using appropriate methods.
- Mist air and vacuum area immediately.
- Vacuum an area of 10 square feet surrounding the spilled debris.
- Wet wipe the complete vacuumed area.
- Notify technician of hygienist of the spillage.

EMERGENCY PROCEDURES FOR BREACH IN CONTAINMENT BARRIER

- Make immediate repair of the containment breach.
- Shut down all removal if in progress.
- Wet down the area near the breach.
- Perform all necessary work needed to clean the area nearest the breach.
- Inform technician or hygienist on the project of the containment branch.

EMERGENCY PROCEDURES FOR LIFE THREATENING EMPLOYEE INJURY

- In any life threatening injury situation, the employee will be removed immediately from the containment area without regard to decontamination procedures.
- All available first aid practices and procedures will be used as an immediate response.
- An immediate 911 call will be made.
- It will be the responsibility of supervisory personnel to make sure immediate emergency responses are made to all appropriate medical personnel, company personnel and to the injured employee's family.

August, 1992

HEAT STRESS

The symptoms of heat stress include pale, clammy skin; profuse sweating; fatigue; headache; cramps; vomiting; and fainting. If possible, the worker should shower, with assistance, if necessary. Drink fluids such as soda, juice or water. Lie down and rest. If a worker loses consciousness, immediately call for emergency assistance.

HEAT STROKE

The symptoms of heat stroke are hot, dry skin; high body temperature; red, flushing face; headache; confusion; nausea; dizziness, and diarrhea. Heat stroke is very dangerous. It is possible to lapse into a coma. Emergency treatment should be immediate. As in all life threatening situations, the worker should be removed from the work area the fastest way possible. Decontamination procedures are not necessary. Remove the worker's clothing and cool the worker immediately with cold water or ice. The shower may be used for this purpose. Call for emergency medical assistance IMMEDIATELY.

- In order to reduce these possibilities, the following precautions should be taken:
  - DRINK PLENTY OF FLUIDS.
  - USE A LITTLE MORE SALT DURING MEALS.
  - TYPE "C" RESPIRATORS MAY ALLEVIATE SOME OF THE HEAT PROBLEM.

STANDARD PROCEDURES FOR POWER OUTAGE (NO RESERVE)

If the building power fails:

1. Immediately cease all activity in work area.
2. Using contractor supplied emergency lights move all men to the de-con station and have them sit down and wait.
3. Immediately and thoroughly wet down the entire work area.
4. De-con man will tape all flaps shut to the work area.
5. If power is not restored within 1 hour, slowly de-con out the work force leaving 1 or 2 men inside to continue to maintain a thoroughly wet work area.
6. If power is not restored within 2 hours, the main crew will be off and the only people on site will be the superintendent, de-con man, and 1 or 2 men inside wetting the work area. During this waiting period all entrances and exits to the work area will be completely sealed off.
7. Upon restoration of the power, all critical seals and the complete integrity of the work area will be checked before work resumes.

EMERGENCY PROCEDURES FOR FIRE

- In the event of a fire in or near a containment area, a compressed air boat horn will be sounded to alert all employees.
- Without regard to decontamination procedures, employees will leave the containment area via pre-determined exit routes.
- Immediately after employee evacuation, supervisory personnel will account for employees by comparing the daily log sheet with employees present.
- Medical and rescue decisions will be made immediately by supervisory personnel. Appropriate response teams will be alerted.
- As with all emergencies, the President and Vice President will be informed. Their continued involvement and awareness of the situation will be maintained.
- A list of major workplace fire hazards will be posted in the clean area by supervisory personnel (if applicable).
- It will be the responsibility of supervisory personnel to maintain fire prevention equipment.
- A simple floor plan drawing of the work area showing the work area and exits shall be posted to familiarize persons entering the work area.

EMERGENCY PROCEDURES FOR LIFE THREATENING EMPLOYEE INJURY

- In any life threatening injury situation, the employee will be removed immediately from the containment area without regard to decontamination procedures.
- All available first aid practices and procedures will be used as an immediate response.
- An immediate 911 call will be made.
- It will be the responsibility of supervisory personnel to make sure immediate emergency responses are made to all appropriate medical personnel, company personnel and to the injured employee's family.

August, 1992

EMERGENCY PROCEDURES

A brief outline of procedures to be followed at job site in the event of:

1. FIRE

The fire hazard supersedes the asbestos hazard. All workers shall be evacuated immediately, and if necessary, plastic seals may be violated in order to assure workers safety. Fire extinguishers, fire exits, and other fire considerations are covered the Company's Worker Safety Training Program.

2. LIFE THREATENING BODILY INJURY INSIDE CONTAINMENT AREA

Emergency medical personnel will be summoned to the job site and allowed the fastest route to the victim. Upon establishing medical attention, the work area will be evacuated and police notified.

3. MAJOR BREACH IN CONTAINMENT BARRIER

Immediately re-establish barrier, summon a work crew, and begin emergency clean-up procedures. Air samples will then be taken to verify that no friable asbestos is escaping into the environment.

4. UNEXPECTED AIRBORNE CONTAMINATION DETECTION IN OTHER PARTS OF BUILDING

All work shall cease immediately; the breached barrier shall be located and re-established as all personnel in the contaminated area are evacuated; air samples will then be taken to verify that no friable asbestos is escaping into the environment.

5. SPLITTING/SPILLING OF ASBESTOS DEBRIS BAGS ENROUTE TO DUMPSTER OR WASTE TRUCK

The debris shall be immediately wet down by trained personnel wearing suits and proper respiratory equipment as emergency clean-up procedures are followed. Air samples will then be taken to verify that no friable asbestos has escaped into the environment.

EVACUATION PROCEDURES FOR INJURED PERSONNEL

In the event of serious acclident involving Aztec Environmental, Inc. **employees, the following is an ontline of the evacuation procedures:**

1. In the event of serious accident, the workman is not to be moved under any circnmstances; the only exception being fire. The respirator should be removed from the injured only if impaired breathing is readily observed.

2. An ambulance service notified of the existence of the project before the work started shall be contacted; resplrators will be provided for ambulance personnel upon arrival at the work slte. Decontamination procedures will be waived at this time upon exit of work areas.

3. The snpervisor shall contact the hospital or emergency clinic (previously notified of the existence of the project) and inform them that our employee is being transported.

4. If decontamination Procedures were waived, the Supervisor will notify th emergency personnel before any emergency treatment is administered.

5. In the event of a minor accident, the snpervisor will see that Decontamination Procednres are followed. Transportation to the emergency clinic will be provided by Aztec Environmental, Inc.

6. In the event of an accident involving death of one of Samurai Constrnction Co., Inc. employees, the Supervisor will evacuate the project area; inform OSHA, local police, and State or Federal Agencies in charge of the investigation and enforcement of work procednres. The work will not resnme until Aztec Environmental, Inc. **is authorized to do so.**

7. The architect/Engineer and Owner will be notified in writing of any major accident requiring medical attention.

8. Emergency exits will be clearly marked within the work area. Arrows leading from different work areas to emergency exit will be clearly marked.

EMERGENCY TELEPHONE #'S

Project Name UNIVERSITY HOSPITAL
1200 West Leonard Str.
Pensacola, FL

Project # PS1 783-7A061

The following are the emergency telephone numbers where project key personnel can be reached at all times. In addition, the emergency telephone numbers of other vital agencies are listed as shown.

AZTEC ENVIRONMENTAL, INC.
2060 North Sherman Avenue
Panama City, FL 32405

Contractor's Home Office: 1-850-747-0078

Contractor's Project Superintendent: Jimmy Livingston
Beeper: 1-888-233-7395 /Home: 1-850-874-0374
Pen #1924310

Project Consultant: PSI
1985 Cope Lane
Pensacola, FL 32526
1-850-941-0743

Other Emergency Telephone Numbers

Fire: 911

Ambulance: 911

Police: 911

Landfill: Waste Recyclers, Inc - 1-850-835-2125
Santa Rosa Landfill - 1-850-626-0191

Other:

COMPETENT PERSON

General:

On all construction worksites covered by this standard, the employer SHALL designate a competent person, baving the qualifications and authorities for ensuring worker safety and health for Construction (29 CFR 1926.20 through 1926.32.)

Required Inspections by the Competent Person:

Section 1926.20 wbich requires health and safety prevention programs to provide for frequent aud regular inspections of the job sites, materials, and equivalent to be made by competent persons, is incorporated.

Additional Inspections:

In addition, the competent person SHALL make frequeut and regnlar inspections of the job sites, in order to perform the duties set below.

For Class I jobs, on-site inspections SHALL be made at least ouce during each work shift, and at any time at employee request.

For Class II, III, and IV jobs, on-site inspections SHALL be made at intervals sufficient to assess wbetber conditions have changed, and at any reasonable time at employee reqnest.

On all worksites where employees are engaged in Class I or II asbestos work, the competent person designated SHALL perform or snpervise the following duties, as applicable:

Sct up the regulated arca, enclosurc, or other containmcnt;
Ensure (by on-site inspection) the integrity of the enclosurc or containment;
Sct up procedurcs to control entry to and exit from the enclosnrc and/or arca;
Supervise all employee exposure monitoring;
Ensure that employees working within the cnclosure and/or using glove hags wear respirators and protective clothing.
Ensure though on-site supervision, that employees set up, use, and remove engineering controls, usc work practices and personal protective equipment in compliance with all requirements;
Ensure that employees use the hygiene facilities and ohscrve the decontamination procedures;
Ensurc that, through on-site inspection, enginecring controls are funetioning properly and employees are using proper work practices; and,
Ensure that notifieation rcquirements are met.

Training for the competent person:

For Class I and II asbestos work the competent person SHALL be trained in all aspects of asbestos removal and handling, inclnding: abatement, installation, removal and handling; the contents of this standard; the identification of asbestos; removal procedures, where appropriate; and other practices for reducing the hazard.

Such training SHALL be obtained in a comprehensive course for supervisors, such as a course that meets the criteria of EPA's Model Accredited Plan (40 CFR part 763) or a course equivalent in stringency, content, and length.

For Class III and IV asbestos work, the competent person SHALL be trained in aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags and mini-enclosures, practices for reducing asbestos exposures, use of wet methods, the contents of this standard, and the identification of asbestos. Such training SHALL include successful completion of a course that is consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92, or its equivalent in stringency, content, and length.

Competent persons for Class III and IV work, may also be trained pursuant to the requirements.

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Ruben Medina [redacted]

Has successfully completed course and passed the required examination for:

Asbestos Supervisor Contractor Refresher

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: *November 22, 1997*

Exam Date: *November 22, 1997*

Expiration Date: *November 22, 1998*

Course Location: *Panama City, Fl*

Certification Number: F 015682

White

Instructors

John V. Harris

Course Administrator

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Rueben Medina

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Lumpkin
Instructor

Debbie K. Lumpkin
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

DOCTOR'S URGENT CARE CENTER

Evaluation For Respirator Wear

Name: Ruben Medina Date: 8/11/97 SSN: [redacted]

MEDICAL HISTORY: To be completed by EMPLOYEE

DO YOU HAVE OR HAVE YOU HAD ANY OF THE FOLLOWING?

YES	NO		YES	NO	
☐	☒	1. Heart Problems	☐	☒	10. Stroke
☐	☒	2. Lung Problems	☐	☒	11. Ruptured Ear Drum
☐	☒	3. Shortness of Breath	☐	☒	12. Intense Fear of Enclosed Spaces
☐	☒	4. Chest Pain	☐	☒	13. Physical Limitations
☐	☒	5. Persistent Cough	☐	☒	14. Hear Problems
☐	☒	6. High Blood Pressure	☐	☒	15. Are there any other conditions that you feel may affect your ability to wear a respirator?
☐	☒	7. Blood Disorders			
☐	☒	8. Diabetes			
☐	☒	9. Thyroid Problems			

Explain: _____

SMOKING HISTORY:

☐ ☐ Have you ever smoked cigarettes regularly?
Approximate No. of years you have smoked regularly. _____ Yrs.
During this time how many packs per day did you smoke? _____ Packs/Day

☐ ☐ Do you currently smoke cigarettes?
How many packs per day do you smoke? _____ Packs/Day

☐ ☐ Do you currently smoke cigars or a pipe?

☐ ☐ Do you use snuff or chewing tobacco?

MEDICATION USAGE:

☐ ☐ Do you currently take any medications (prescription or over-the-counter)?
If yes, list medications: _____

Ruben Medina 8/11/97
Employee's Signature Date

TO BE COMPLETED BY PHYSICIAN:

	ACCEPTABLE	UNACCEPTABLE	COMMENTS
FACIAL CONTOURS	☒	☐	
INTRA-NASAL EVALUATION	☐	☐	
EAR DRUMS (PERFORATION)	☐	☐	
CARDIOVASCULAR STATUS	☐	☐	
PULMONARY STATUS	☐	☐	

BASED ON EVALUATION OF THE ABOVE FACTORS:

CLASS (CHECK)

☒ No restrictions on respirator use.

☐ Some specfic use restrictions.

RESTRICTIONS: _____

☐ No respirator use permitted. (escape only)

Physician's Signature Date 8/11/97

FORM #A003

QUALITATIVE FIT TEST

Date: 12/1/97 Social Security Number [redacted]

Ruben		Medina
Name First	Middle	Last

Respirator #1

Manufacturer	Survivair
Facepiece Type & Size	Half-face Large
Type of Test (Saccharin or Smoke)	Smoke

Debbie K. Livingston

Name of Person that conducted test(print)

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test eonductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, Florida
CONTRACTOR: AZTEC ENVIRONMENTAL

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protec measures. The topics covered in the course include the following:

- Physical characteristics of asbestos
- Physical characteristics of lead
- Respiratory protection
- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Ruben Medina
Social Security No.: [redacted]
Signature: Ruben Medina
Witness:

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

Employee Information And Training

The employee shall institute a training program from all employees who are likely to be exposed in excess of a PEL and for all employees who perform Class I through IV asbestos operations, and shall ensnre their participation in the program.

Training SHALL be provided prior to or at the time of initial assignment and at least annually thereafter.

"OSHA wishes to clarify that for Class I workers and for Class I and Class II competent persons whose training is equivalent to that of 40 CFR part 763, subpart E, Appendix C, the annual refresher training shall be of 8 hours duration, eqnivalent to that in the EPA guidelines.
For all others trained under the provisions of these standards, annual refresher training is required, but the duration is not specified. OSHA believes that hands-on training is essential for both initial and refresher training. To accomplish this and cover essential health iuformation, a minimum of two hours training will be expected for Class II and III work."

Training for Class I operations SHALL be the equivalent in cnrriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C.). (32 Hours)

Training for Class II work. For work with asbestos containing material involving roofing materials, flooring materials, siding materials, ceiling tiles, or transite panels, training shall include at a minimum all the elements and in addition, the specific work practices and engineering controls set forth in this section. Such course shall include "bands-on" training aud shall take at least 8 hours.

In devcloping the rcvised standards, OSHA noted that asbestos abatement workers often remove large amounts of the higher hazard materials sueh as thermal system ACM and sprayed-on ACM and other ACM having somewhat lower exposure potential such as siding, wallboard and other huilding materials. For this group of workers OSHA continues to believe that training equivalent to that of EPA's asbestos abatement worker training is appropriate. However, some workers will remove only ACM which is not TSI or surfacing ACM. For those whose work involves removal of only a single generie type of material, OSHA speeified that an 8 honr training coorse would be acceptable. OSHA continues to helieve that this time period is necessary for training of workers whose duties include removal of building materials such as roofing, flooring, siding, transite panels and ceiling tiles.
However, it has been brought to the agency's attention that there are some other types of materials other than those listed ACM building components. These other materials include gaskets, firedoors, laboratory hoods, and other materials. However, covering all required training for those other materials is generally not assumed to take 8 hours. The training for these materials continues to require eovering all topics in the Construetion and Shipyard Employment Standard, all pertinent work practices and other eontrols and must have a 'hands-on" component. OSHA helievcs that sueh training wonld be likely to require at least 4 hours to adequately cover the topics, methods, and hands-on portion. OSHA also recognizes that many different operations will be eovered in this type of training and that the time required for adequate training will vary aud thus the period is not specified.

Training for Class III employees shall be consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92. Such a course shall also include "hands-on" training and shall take at

least 16 hours. Exception: For Class III operations for which the competent person determines that the EPA curriculum does not adequately cover the training needed to perform that activity, training shall inclnde as a minimum all the elements included in this section and in additiou, the specific work practices and engineering controls in this section which specifically relate that activity, and shall include "hands-on" training.

Training for employees performing Class IV operations shall be consistent with EPA requirements for training of local education agency maintenauce and custodial staff as set forth at 40 CFR 763.92. Snch a course shall include available information concerning the locations of thermal system insulation and surfacing ACM/PACM, and asbestos-containing flooring material, or flooring materials where the absence of ashestos has not yet been certified; and instruction in recognition of damage, deterioratiou, and delamination of asbestos containing building materials. Such course shall take at least 2 hours.

The Gencral Industry standard is corrected to clarify the requirement for awareness training of housekeepers. The word "faeility" is replaced with the word "area." This clarifies OSHA's intention that only those workers whose housekeeping duties require them to work in areas of a huilding or faedity in which asbestos or presumed asbestos is present shall receive awareness training.
For example, in a refinery in which the only ACM/PACM is outdoor pipe insulation and the housekeepers duties are only within the offiee huilding on the site, the employer is not required to provide them awareness training. Awareness training is required for those whose duties might bring them into contaet with ACM/PACM."

The training program sball be conducted in a manner that the employee is able to understand. The employer shall ensure that each such employee is informed of the following:

Methods of recognizing ashcstos, to presume that eertain building materials contain asbestos;
The health effeets associated with asbestos exposurc;
The relationship between smoking and asbestos in producing lung eaneer;
The nature of operations that eould result in exposure to asbestos, the importanee of necessary proteetive controls to minimize exposure ineluding, as applieable, engineering controls, work practiees, respirators, housekeeping proeedures, hygiene faeilities, proteetive clothing, decontamination proeedures, emergeney procedures, and waste disposal proeedures, and any neeessary instruetion in the use of these eontrols and procedures; where Class III and IV work will he or is performed, the contents of EPA 20T-2003, "Managing Asbestos In-Plaee" July 1990 or its equivalent in content;
Thc purpose, proper use, fitting instruetions, and limitations of respirators as required hy 29 CFR 1910.134;
The appropriate work praetiees for performing the asbcstos joh;
Medical surveillanee program requirements;
The content of this standard, ineluding appendiees;
The names, addresses and phone numbers of publie health organizations whieh provide information, materials and/or eondnet programs eoneerning smoking cessation. The employer may distribute the list of sueh organizations, to comply with tbis rcquirement; and
The requircments for posting signs and affixing labels and the meaning of the rcqnired legends for sueh signs and labels.

Access to training materials.

The employer SHALL make readily available to affected employees without cost, written materials relating to the employee training program, inclnding a copy of this regulation.

The employer SHALL provide to the Assistant Secretary and the Director, upon request, all information aud training materials relating to the employee information and training program.

The employer SHALL inform all employees concerning the availability of self-help smoking cessation program material. Upon employee request, the employer SHALL distribute such material, consisting of NIH Publication No. 891647 or eqnivalent self-help material, which is approved or published by a public health organization.

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Marco Julio Medina [redacted]

Has successfully completed course and passed the required examination for:

Asbestos Worker Refresher

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: *May 17, 1997*

Exam Date: *May 17, 1997*

Expiration Date: *May 17, 1998*

Course Location: *Panama City, Fl*

Certification Number: F 015157

White

Instructor: John V. Davis

Course Administrator

Remake of Original

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Marco Medina

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instructor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

Industrial Insulations/Commercial Insulations/Refractory Materials & Installations

PHYSICIAN'S WRITTEN OPINION REPORT

NAME: Marco Tulio Medina S.S. #: 592-65-5252

TO: AZTEC ENVIRONMENTAL, INC.

FROM: Examining Physician:

DATE: 8/11/97

SUBJECT: PHYSICIAN'S WRITTEN OPINION

In accordance with the requirements of Section (m) (4) (i) of the OSHA Asbestos Standard, 29CFR 1926.58, the examining physician will provide the employer with a written opinion which shall consist of the following:

1. This is to certify, that on this date, August 11, 97, and in accordance with the OSHA Asbestos Standard 29 CFR 1926.58, I have examined Marco Tulio Medina whose Social Security Number is 592-65-5252, and based on my findings, have determined this individual (X) MAY ( ) MAY NOT use a respiratory device while performing his/her required employment services;
2. The results of this examination ( ) HAVE (X) HAVE NOT detected any medical condition which would place the employee at an increased risk of material health impairment from exposure to esbestos, and
3. In accordance with OSHA requirements, I have informed the above individual of the results of his/her medical examination and of an medical condition that may result from his/her exposure to asbestos.

The complete medical examination report on the above named individual will be forwarded to the employer pending final conclusion and interpretation of any medical data collected during the examination.

Signed _____ Examining Physician

Clinic NORTH DAVIS FAMILY MEDICINE CENTER
6330 NORTH DAVIS HIGHWAY
PENSACOLA, FL 32504-0952
(904) 478-3336

NOTE: The company will provide a copy of the Physician's Written Opinion to the employee within 30 days of receipt.

QUALITATIVE FIT TEST

Date: 12/1/97 Social Security Number [redacted]

Marco	Julio	Medina
Name First	Middle	Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face, Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

ROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, Florida
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response ction personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

Physical characteristics of asbestos
Physical characteristics of lead
Respiratory protection
Use of protective equipment
Reduced air pressure systems
Work practices including hands-on or on-job training
Personal decontamination procedures
Personal and area air monitoring
Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Marco Medina
Social Security No.: [redacted]
Signature: Marco Medina
Witness: Donna H. Madaris

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Miguel Medina [redacted]

Has successfully completed course and passed the required examination for:

Asbestos Worker Refresher

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: *May 17, 1997*

Exam Date: *May 17, 1997*

Expiration Date: *May 17, 1998*

Course Location: *Panama City, Fl*

Certification Number: F 015159

White

Instructors

John W Davis

Course Administrator

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Miguel Medina

on Oetober 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instruetor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

EMPLOYEE NAME: Miguel Medina S[redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Miguel Medina
Employee Name
on 8-1-97, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U/C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEVI.0)

Miguel Med is physically able to perform the work and use the equipment
Employee Name
(such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and L

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) The employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Miguel Medina has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

✓ Annual

____Periodic

Aldridge
Signature of M.D.
8-1-97
Date
Ronald J. Aldridge 347-46-6 PA-C
Name of M.D. (Print)
2306 Hwy 77
Address
PC FL 32405
City, State, Zip Code
(850) 763-9744
Phone

Comments:

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 12/1/97 Social Security Number [redacted]

MIGUEL		MEDINA
Name First	Middle	Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face, Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

P.O. Box 1237, Ft. Walton Beach, FL 32549
TEL: (904) 862-9823 FAX: (904) 862-2749

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital
PROJECT ADDRESS: Pensacola, Florida **DATE:** 3/17/98
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

Physical characteristics of asbestos
Physical characteristics of lead
Respiratory protection
Use of protective equipment
Reduced air pressure systems
Work practices including hands-on or on-job training
Personal decontamination procedures
Personal and area air monitoring
Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Miguel A MEDINA
Social Security No.: [redacted]
Signature:
Witness:

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

Asbestos Consulting & Training Systems

903 N.W. 6TH Avenue, Fort Lauderdale, Florida 33311 (954) 524-7208

34118.461CERT/

This is to Certify that

Jose E. Roberts

[redacted]

CEU SPONSOR'S # 04P0301

has successfully completed

Asbestos Worker Refresher

24-Apr-97 TO 25-Apr-97

Asbestos courses comply with Section 206 TSCA 15 UCS 2646

Complies with Sec. 206 TSCA 15 UCS 2646

Trainer(s): Michael Kostoff

TEST SCORE: 80 % Training Address: 2060 Sherman Avenue, Panama City, FL

Examination administered upon course completion.

Seagull
Since 1971

UNDER CIVIL AND CRIMINAL PENALTIES OF LAW FOR MAKING OR SUBMISSION OF FALSE OR FRAUDULENT STATEMENTS OR REPRESENTATIONS (18 U.S.C. 1001 AND 15 U.S.C. 2615), I CERTIFY THAT THIS TRAINING COURSE COMPLIES WITH ALL APPLICABLE REQUIREMENTS OF TITLE IV OF THE TOXIC SUBSTANCES CONTROL ACT, 40 CFR PART 745 OR 763, AND ANY OTHER APPLICABLE FEDERAL, STATE, OR LOCAL REQUIREMENTS IMPOSED.

James F. Stump, Course Sponsor

This Certificate Expires

25-Apr-98 4/25/98

Certificate Number..... 87941

Course Number **PU9717**

AZTEC ENVIRONMENTAL, INC.

This is to certify that

JOSE ROBERTS

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instructor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

EMPLOYEE NAME: Jose Roberts S [redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Jose Roberts
Employee Name
on 6/16/97, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U/C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEVI.0)

Jose Roberts is physically able to perform the work and use the equipment
Employee Name
(such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and L

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) Tbe employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Jose Roberts has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

✓ Annual

___ Periodic

B. Lubinmd
Signature of M.D.

6/16/97
Date

BARBARA LUBIN MD
Name of M.D. (Print)

2306 Hwy 77
Address

Panama City, Fl 32405
City, State, Zip Code

(904) 763-9744
Phone

Comments: _____

QUALITATIVE FIT TEST

Date: 1/12/98 Social Security Number [redacted]

JOSE	E.	ROBERTS
Name First	Middle	Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face, Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

- Physical characteristics of asbestos
- Physical characteristics of lead
- Respiratory protection
- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Jose E Roberts
Social Security No.: [redacted]
Signature: (Roberts)
Witness: Donna H. Madaris

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Lijia Salazar [redacted]

Has successfully completed course and passed the required examination for:

Asbestos Worker Refresher

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: *November 23, 1997*

Exam Date: *November 23, 1997*

Expiration Date: *November 23, 1998*

Course Location: *Panama City, Fl*

Certification Number: F 015686

White

Instructors

John V. Savio

Course Administrator

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Lijia Salazar

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instructor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

EMPLOYEE NAME: Ligia Salazar **SS#** [redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Lijia Salazar (Employee Name) on 12/4/97, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEV1.0)

Lijia Salazar (Employee Name) is physically able to perform the work and use the equipment (such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and I.

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) The employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Lijia Salazar has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

✓ Annual

__ Periodic

D. Staff
Signature of M.D.

12/4/97
Date

Donna M. Staff
Name of M.D. (Print)

NORTH DAVIS FAMILY MEDICINE CENTER
5330 NORTH DAVIS HIGHWAY
PENSACOLA, FL 32504-0953
(904) 478-2336

Address

City, State, Zip Code

Phone

Comments:

QUALITATIVE FIT TEST

Date: 3/12/98 Social Security Numb[redacted]

Lijia V. Salazar

Name First Middle Last

Respirator #1

Manufacturer	Survivair
Facepiece Type & Size	Half-face Large
Type of Test (Saccharin or Smoke)	Smoke

Jimmy Livingston

Name of Person that conducted test(print)

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, FL
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

- Physical characteristics of asbestos
- Physical characteristics of lead
- Respiratory protection
- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Lijia Salazar
Social Security No.: [redacted]
Signature:
Witness:

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

Asbestos Consulting & Training Systems

903 N.W. 6TH Avenue, Fort Lauderdale, Florida 33311 (954) 524-7208

34493.4065CERT/

This is to Certify that

Edwin R. Sarazua

[redacted]

CEU SPONSOR'S # 04P0301

has successfully completed

Asbestos Worker Refresher

2-May-98 TO 2-May-98

Asbestos courses comply with Section 206 TSCA 15 USC 2646

Complies with Sec. 206 TSCA 15 USC 2646

Trainer(s): Michael Kostoff

TEST SCORE: 80 % Training Address: 2060 N. Sherman Avenue, Panama City, FL

Examination administered upon course completion.

Seagull

Since 1971

UNDER CIVIL AND CRIMINAL PENALTIES OF LAW FOR MAKING OR SUBMISSION OF FALSE OR FRAUDULENT STATEMENTS OR REPRESENTATIONS (18 [illegible] 1001 AND [illegible] U.S.C 2[illegible] I CERTIFY THAT THIS TRAINING COURSE IS [illegible] APPLICABLE REQUIREMENTS OF TITLE IV, [illegible] "TOXIC SUBSTANCES CONTROL ACT", 29 CFR PART 745 OR 763, AND ANY OTHER [illegible] FEDERAL, STATE, OR LOCAL REQUIREMENTS, AS AMENDED.

James F. Stump, Course Sponsor

Certificate Number..... 91643

This Certificate Expires

2-May-99 5/2/99

Course Number PU9818

Industrial Insulations/Commercial Insulations/Refractory Materials & Installations

PHYSICIAN'S WRITTEN OPINION REPORT

NAME: Edwin P Saenz S.S. #: [redacted]

TO: AZTEC ENVIRONMENTAL, INC.

FROM: Examining Physician: Richard T Foltz MD

DATE: 9-25-97

SUBJECT: PHYSICIAN'S WRITTEN OPINION

In accordance with the requirements of Section (m) (4) (i) of the OSHA Asbestos Standard, 29CFR 1926.58, the examining physician will provide the employer with a written opinion which shall consist of the following:

1. This is to certify, that on this date, 9/25/97, and in accordance with the OSHA Asbestos Standard 29 CFR 1926.58, I have examined Edwin P Saenz whose Social Security Number is 667 04 5960, and based on my findings, have determined this individual (✓) MAY ( ) MAY NOT use a respiratory device while performing his/her required employment services;
2. The results of this examination ( ) HAVE (✓) HAVE NOT detected any medical condition which would place the employee at an increased risk of material health impairment from exposure to asbestos, and
3. In accordance with OSHA requirements, I have informed the above individual of the results of his/her medical examination and of an medical condition that may result from his/her exposure to asbestos.

The complete medical examination report on the above named individual will be forwarded to the employer pending final conclusion and interpretation of any medical data collected during the examination.

Signed [signature]
Examining Physician

Clinic North Davis Family Medicine Center

NOTE: The company will provide a copy of the Physician's Written Opinion to the employee within 30 days of receipt

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 3/24/98 Social Security Number [redacted]

Edwin	R.	Sarazua
First	Middle	Last

Name

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face, Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Debbie K. Livingston
Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, FL
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

Physical characteristics of asbestos
Physical characteristics of lead
Respiratory protection
Use of protective equipment
Reduced air pressure systems
Work practices including hands-on or on-job training
Personal decontamination procedures
Personal and area air monitoring
Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Edwin Sarazua
Social Security No.: [redacted]
Signature: Edwin R. Sarazua
Witness: Dulvie K Livingston

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Efrain Trejo [redacted]

Has successfully completed course and passed the required examination for:

Initial Asbestos Worker

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: Feb 26- March 1, 1998

Exam Date: March 1, 1998

Expiration Date: March 1, 1999

Course Location: Tarpon Springs, Fl

Certification Number: F 015858

Nava

Instructors

Course Administrator

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Efrain Trejo

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instructor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

EMPLOYEE NAME: Efraim Trejo **SS#** [redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Efraim Trejo (Employee Name) on 3/4/98, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U/C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEVI.0)

Mr Trejo (Employee Name) is physically able to perform the work and use the equipment (such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and L

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) The employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Mr Trejo has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

✓ Annual

____ Periodic

DAVID P. Diaz
Signature of ~~M.D.~~ PA-C

3/4/98
Date

DAVID P. DIAZ, PA-C
Name of M.D. (Print)

2306 Hwy 77
Address

PANAMA CITY, FL 32405
City, State, Zip Code

850-763-9744
Phone

Comments: _____

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 3/9/98 Social Security Num [redacted]

Efrain Trejo
Name First Middle Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Debbie K. Livingston
Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 6/1/98
PROJECT ADDRESS: Pensacola Fl.
CONTRACTOR: **AZTEC ENVIRONMENTAL, INCORPORATED**

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

- Physical characteristics of asbestos
- Physical characteristics of lead
- Respiratory protection
- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Efrain Tores T
Social Security No.: [redacted]
Signature:
Witness:

Donna H. MADARIS
Comm # CC 436538
Expires February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Marcial P. Trejo [redacted]

Has successfully completed course and passed the required examination for:

Initial Asbestos Worker

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: Feb. 26- March 1, 1998

Exam Date: March 1, 1998

Expiration Date: March 1, 1999

Course Location: Tarpon Springs, Fl

Certification Number: F 015859

Nava

Instructors

John V Savio

Course Administrator

EMPLOYEE NAME: MARCIAL P TREJO [redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Trejo, Marcial
Employee Name
on 6-9-98, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U/C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEV1.0)

Trejo Pacheco is physically able to perform the work and use the equipment
Employee Name
(such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and L

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) The employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Marcial Trejo has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

✓ Annual

____ Periodic

SAUL VAZQUEZ MD
Signature of M.D.

6-9-98
Date

BAY WALK-IN CLINIC
Name of M.D. (Printed)

2306 Highway 77
Address

Panama City, FL 32405
City, State, Zip Code

Phone 763-9744

Comments: _____

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 6/1/98 Social Security Numbe [redacted]

Marcial	P.	Trejo
Name First	Middle	Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face, Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Debbie K Livingston
Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 6/1/98
PROJECT ADDRESS: Pensacola, FL.
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

By signing this certification you are assuring the Owner that your employer has met these obligations to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. I have seen a copy of the written respirator protection manual issued by my employer. I have been equipped with the respirator to be used on the above referenced project at no personal cost.

TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

- Physical characteristics of asbestos
- Physical characteristics of lead
- Respiratory protection
- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: MARCIAL TEJO
Social Security No.: [redacted]
Signature: MARCIAL TEJO
Witness: Gabriela L. Knight

RETRA TRAINING SERVICES, INC.

113 S. Disston Avenue
Tarpon Springs, FL 34689
1-813-938-5459

Aura Vielman [redacted]

Has successfully completed course and passed the required examination for:

Asbestos Worker Refresher

as required by AHERA, 40 CFR Part 763, section 206
of the Toxic Substances Control Act (TSCA) Title II;
and by NESHAP, 40 CFR 61 Part M; and by OSHA 1926.1101

Course Date: *May 17, 1997*

Exam Date: *May 17, 1998*

Expiration Date: *Panama City, Fl*

Course Location:

Certification Number: F 015158

White

Instructors

John U Lewis

Course Administrator

AZTEC ENVIRONMENTAL, INC.

This is to certify that

Aura Vielman

on October 1 & 2, 1997 in Panama City, Florida

completed

16 HR. LEAD TRAINING

[redacted]

Debbie K. Livingston
Instructor

Debbie K. Livingston
President

2060 North Sherman Ave./Panama City, FL/1-850-747-0078

EMPLOYEE NAME: VEILMAN, AURA [redacted]

STATEMENT BY A MEDICAL DOCTOR

I have performed a comprehensive medical examination of Aura Veilman
Employee Name
on 8/1/97, which included, as a minimum, completion of the OSHA Initial Medical Questionnaire, or Periodic Medical Questionnaire, a chest roentgenogram (Posterior-Anterior, 14 x 17 inches), at the discretion of the examining physician, classified according to the ILO-U/C International Classification of Radiographs and recorded on Roentgeno-graphic Interpretation Form CSD/NIOSH (M) 2.8, a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include Forced vital Capacity (FVC) and forced Expiratory volume at 1 second (FEV1.0)

Aura Veilman ~~is~~ physically able to perform the work and use the equipment
Employee Name
(such as respiratory equipment) required in performing his/her work with no limitations including the use of negative pressure respirator.

The employer has provided me with the following:

(1) A copy of OSHA regulation standard 29 CFR 1926.1101 and appendices D, E, and I.

(2) A description of the affected employee's duties as they relate to the employee's exposure.

(3) The employee's representative exposure level or anticipated exposure level.

(4) Description of any personal protective and respiratory equipment used or to be used.

(5) Has been informed of the dangers of smoking.

Aura Vielman has been informed of the results of the examinations and of any medical conditions that may result from asbestos and lead exposure.

Type of Examination

____Annual

____Periodic

Ronald J. Aldridge
Signature of M.D. PA

8/1/97
Date

Ronald J. Aldridge
347-46-6444
PA-C
Name of M.D. (Print)

BAY WALK-IN CLINIC
Address 2306 Highway 77
Panama City, FL 32405
City, State, Zip Code

(850) 763-9744
Phone

Comments: _____

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 1/12/98 Social Security Numbe [redacted]

AURA VIELMAN

Name First Middle Last

Respirator #1

Manufacturer Survivair

Facepiece Type & Size Half-face Large

Type of Test (Saccharin or Smoke) Smoke

Debbie K. Livingston

Name of Person that conducted test(print)

Debbie K. Livingston

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

P.O. Box 1237, Ft. Walton Beach, FL 32549
TEL: (904) 862-9823 FAX: (904) 862-2749

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, FL.
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that at no cost to you: 1) You be supplied with the proper respirator and be trained in its use; 2) You be trained in safe work practices and in the use of the equipment on the job; and 3) You receive a medical examination in compliance with 29 CFR 1910.1001.

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TRAINING COURSE: I have completed an EPA-accredited training course approved by the State of Florida for response action personnel as specified in the AHERA regulations and Florida Statutes (40 CFR 763, appendix C and Subpart E and F.S. 455301-155308). I have been trained in the dangers inherent in handling asbestos and breathing asbestos/lead dust. I have been trained to avoid spreading of asbestos/lead contaminants by following proper work procedures, personal hygiene and protective measures. The topics covered in the course include the following:

Physical characteristics of asbestos
Physical characteristics of lead
Respiratory protection
Use of protective equipment
Reduced air pressure systems
Work practices including hands-on or on-job training
Personal decontamination procedures
Personal and area air monitoring
Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Hura Vielman
Social Security No.: [redacted]
Signature: Hura Vielman
Witness: [signature]

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

RETRA Services, Inc.

1486 Old Butler Plank Rd.
Glenshaw, PA 15116

Rosa M. Vielman [redacted]

Has successfully completed course and passed an examination for:

Asbestos Worker Refresher

as required by AHERA, 40 CFR Part 763, under section 206 of the Toxic Substances Control Act (TSCA); 15 U.S.C. 2646

Date of Course: *June 24, 1997*

Expiration Date: *June 23, 1998*

Certification Number: Nº 018911

Instructor

Evaluation For Respirator Wear

Pensacola Blvd. Family Care Center
8950 Pensacola Boulevard
Pensacola, FL 32505
(904) 478-4337

Rosa M. Vielman Date: 7/29/97 SSN: [redacted]

MEDICAL HISTORY: To be completed by EMPLOYEE

Do you have or have you had any of the followtng?

Yes	No		Yes	No		Yes	No	
☐	☑	1. Heart Problems	☐	☑	8. Olabetes	☐	☑	15. Are there any other conditions that you feel may effect your ability to wear a respirator?
☐	☑	2. Lung Problems	☐	☑	9. Thyroid Problems			
☐	☑	3. Shortness of Breath	☐	☑	10. Stroke			
☐	☑	4. Chest paln	☐	☑	11. Ruptured Ear Drum			
☐	☑	5. Persistent Cough	☐	☑	12. Intense fear of enclosed spaces			Explain:
☐	☑	6. High Blood Pressure	☐	☑	13. Physical Limitations			
☐	☑	7. Blood Disorders	☐	☑	14. Hearing Problems			

SMOKING HISTORY:

☐ ☑ Have you ever smoked cigarettes regularly?
Approximate number of years you have smoked regularly. _____ years.
During this time how many packs per day did you smoke? _____ Packs/Day

☐ ☑ Do you currently smoke cigarettes?
How many packs per day do you smoke? _____ Packs/Day

☐ ☑ Do you currently smoke cigars or ptpe?

☐ ☑ Do you use snuff or chewing tobacco?

MEDICATION USAGE:

☐ ☑ Do you currently take any medications (prescription or over-the-counter)?

If yes, llst medications: _____

Rosa M. Vielman 7-29-97
Employee's Signature Date

TO BE COMPLETED BY PHYSICIAN:

	Acceptable	Unacceptable	Comments
Facial Contours	☑	☐	
Intra-Nasal Evaluation	☑	☐	
Ear Drums (Perforation)	☑	☐	
Cardiovascular Status	☑	☐	
Pulmonary Status	☑	☐	

Based on evaluation of the above factors:
Class (Check)

☑ No restrictions on respirator use.
☐ Some specific use restrictions.

Restrictions: _____

☐ No respirator use permitted. (escape only).

Physician's Signature 7/29/97
Date

Copies: White-Clinic Yellow-Employer Pink-Customer

AZTEC
ENVIRONMENTAL, INC.

QUALITATIVE FIT TEST

Date: 3/17/98 Social Security Number [redacted]

ROSA	M.	VIELMAN
Name First	Middle	Last

Respirator #1

Manufacturer: Survivair

Facepiece Type & Size: Half-face Large

Type of Test (Saccharin or Smoke): Smoke

Debbie K. Livingston
Name of Person that conducted test(print)

Debbie K. Livingston
Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

It is the responsibility of the test subject to assess the comfort of the chosen respirator after a week of use and to use the respirator properly.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: University Hospital **DATE:** 3/17/98
PROJECT ADDRESS: Pensacola, FL.
CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

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- Use of protective equipment
- Reduced air pressure systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Personal and area air monitoring
- Lead in construction

MEDICAL EXAMINATION: I have had a medical examination within the last 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests, lead level test and may have included an evaluation of a chest x-ray.

RELEASE FROM LIABILITY: I understand the health risks associated with exposure to asbestos/lead. Except for rights I may have under the provisions of the applicable workman's compensation laws, I do covenant to hold harmless the owner, the building manager and the engineer and their officers, directors and employees from and against any and all liability related to exposure to asbestos /lead or asbestos/lead containing materials.

Printed Name: Rosa M. Vidman
Social Security No.: [redacted]
Signature: Rosa M. Vidman
Witness: Donna H. Madaris

DONNA H. MADARIS
MY COMMISSION # CC 436538
EXPIRES: February 1, 1999
Bonded Thru Notary Public Underwriters

Donna H. Madaris

AZTEC
ENVIRONMENTAL INC

STANDARD FORMS

AZTEC ENVIRONMENTAL, INC.
2060 North Sherman Avenue
Panama City, Florida 32405
Phone: 1-850-747-0078
Fax: 1-850-784-0430

IMMEDIATE SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

EMPLOYER NAME: _____

MEMBER NUMBER: ____739-_____

CLAIMANT'S IMMEDIATE SUPERVISOR: _____
(print)

CLAIMANT'S NAME: _____

(A COPY OF THIS REPORT MUST BE MAILED TO JOHNS EASTERN CO. ALONG WITH NOTICE OF INJURY.)

1. Description of accident (detail what employee was doing and what physical object tools machines, or equipment were involved?)

_____

_____

_____

_____

2. What could have been done to prevent this accident and by whom ?

_____

_____

_____

3. Why was this not done ?

_____

_____

4. What action are you taking to prevent recurrence of this type of accident?

_____

_____

SUPERVISOR'S SIGNATURE _____ DATE: ____ ____

AIR MONITORING DATA SHEET
ENVIRONMENTAL SAMPLING

Project Name:

Page no.

Project Number:

NIOSH Method 7400A

Lab Sample Number / Field Sample Number	Start Date / End Date	Name / SSN / Respirator Type / Work In Progress	Pump No.	Flow Rate L/min	Time on / Time off	Total Time min	Total Volume Liters	Fiber Count / Field Count	Detect Limit Fibers/cc	Fiber Conc. Fibers/cc
				Pre: Post: Avg:						
				Pre: Post: Avg:						
				Pre: Post: Avg:						
				Pre: Post: Avg:						
				Pre: Post: Avg:						
				Pre: Post: Avg:						
				Pre: Post: Avg:						

Pump Inspection Times: 1)
2)

Analysis of Blanks: 1)
2)

Calibration Method

Air Technician

Microscope I.D.

Field Area mm²

Date Analyzed

Form S-14

DAILY JOB REPORT

Job Name: _____

Job Number: _____

Supervisor: _____

Date: _____

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job:_____

DAILY CHECKLIST

A.M	YES	NO
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.		
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date:_____ **Signed:** _____

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: ______________________________

DATE: ______________________________

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL

AZTEC
ENVIRONMENTAL, INC.

DAILY SIGN IN SHEET

JOB: ______________________

DATE: ______________________

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL

QUALITATIVE FIT TEST

Date:_____Social Security Number_____

_____

Name First Middle Last

Respirator #1

Manufacturer Survivair

Facepiece Type & Size

Type of Test (Saccharin or Smoke)

_____

Name of Person that conducted test(print)

_____

Signature of Person that conducted test

The fit tests were conducted according to procedures outlined in the OSHA asbestos standards for construction, 29 CFR 1926,58, appendix C. Each respirator was successfully tested based on the test subject accurately reporting to the test conductor that the challenge agent was not detected during the testing.

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CERTIFICATE OF WORKER'S ACKNOWLEDGMENTS

PROJECT NAME: UNIVERSITY HOSPITAL **DATE:** 3/19/98

PROJECT ADDRESS: Pensacola, FL

CONTRACTOR: AZTEC ENVIRONMENTAL, INCORPORATED

WORKING WITH ASBESTOS/LEAD CAN BE DANGEROUS. INHALING ASBESTOS FIBERS / LEAD DUST HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS / LEAD DUST THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

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Printed Name: _____

Social Security No.: _____

Signature: _____

Witness: _____

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address ~~2315 Hwy 2297~~ 2060 N. Sherman Ave Panama City, FL ~~2060 N. Sherman Ave~~		**Operator's telephone no.**
Aztec Environmental, Incorporated/		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location 32405		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name, and address of responsible agency DER		

5. Description of materials	6. Containers No. Type	7. Total quantity
ACM	Bags	m³ 30 (yd³)

8. Special handling instructions and additional information
N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish/Supervisor	Joe Parrish	03/26/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish/Supervisor	Joe Parrish	03/26/98
Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator:
Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson - secretary	Darleen Tolson	3-26-98

Continued on next page (page 1 of 3)

429-92-329-01

182527

WASTE RECYCLERS OF NORTH FLORIDA, INC.
P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 3/26 19 98

Customer Name Ogden Environmental

Address ~~3165 Hwy 3295~~ Panama City, FL 32405

Truck # _____ Box # _____

Time In 1104 am Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
ILL DIRT			
C & D MATERIAL			400.00

Asbestos 30yds x 12.00 yd = 360.00 plus 40.00 burial

CASH _____ CHARGE ✓

Driver Joe Parnell

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court [illegible] or any other fees paid out to locate and collect monies due.

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity
ACM		Bags	m³ 30 (yd³)

8. Special handling instructions and additional information

N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish	Joe Parrish	03/27/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	03/27/98
Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site (owner or operator): Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson-Secretary	Darleen Tolson	3-27-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS
OF NORTH FLORIDA, INC.
P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

182625

INVOICE

DATE 3/27 19 98

Customer Name Aztec Environmental

Address ~~315 Hwy 2382~~ Panama City Fl. 32405

Truck # _____ Box # _____

Time In 3:27pm Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			440.00

Asbestos. 30yd x 12 sq ft = 360 sq plus 40 sq burial

CASH _____ CHARGE ✓

Driver Joe Parrish

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name and address of responsible agency		
DER		

5. Description of materials	6. Containers No. Type	7. Total quantity m³ (yd³)
ACM	Bags	30

8. Special handling instructions and additional information

N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	04/01/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405	Joe Parrish	04/01/98

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site ~~owner~~ or operator: Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson secretary	Darleen Tolson	4-1-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS
OF NORTH FLORIDA, INC.

183066

P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 4/1 19 98

Customer Name Aztec Environmental

Address ~~2315 Hwy 2297~~
Panama City FL. 32405

Truck # _____ Box # _____

Time In 1244 pm Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			400 flat

Asbestos 12yd x 30yd = 360 plus 40 Burial

CASH _____ CHARGE ✓

Driver Joe Pundt

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM		Bags	30	

8. Special handling instructions and additional information

N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	April 9, 1998

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	April 9, 1998
Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site (owner or operator): Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson - Secretary	Darleen Tolson	4-9-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS OF NORTH FLORIDA, INC.
P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

183517

INVOICE

DATE 4 9 19 98

Customer Name Aztec Environmental

Address 2060 N. Sherman Ave.
Panama City FL. 32405

Truck # ______ Box # ______

Time In 409pm Customer Acct. # ______

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			$400.00

Asbestos 30yds x 12.00 yd = $360.00 plus 40.00 burial fee

CASH ______ CHARGE ✓

Driver Joe Parrish

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
University Hospital	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM		Bags	30	

8. Special handling instructions and additional information

N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	April 10, 1998

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	April 10, 1998
Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site (owner or operator) Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson - secretary	Darleen Tolson	4-10-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS
OF NORTH FLORIDA, INC.
P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

133558

INVOICE

DATE 4/10 19 98

Customer Name Ayler Environmental

Address 2060 N. Sherman Cir.

Panama City FL. 32405

Truck # _____ Box # _____

Time In 1238pm Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			
Asbestos 30yds x 12.00/yd	$360.00	plus 40.00 burial	400.00

CASH _____ CHARGE ✓

Driver Joe Pound

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
AZTEC ENVIRONMENTAL, INC./ 2060 North Sherman Ave. Panama City, FL 32405		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
SANTA ROSA SOLID WASTE DEPT.		850-626-0191
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM		Bagged	5	

8. Special handling instructions and additional information

NONE

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K. Livingston, President	Debbie K. Livingston	4/22/98

Transporter

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervison	Joe Parrish	4/23/98
Address and telephone no.		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Sherwin M. Holland Land Fill Attendant	Sherwin M. Holland	04/23/98
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator: SANTA ROSA COUNTY

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
KENNETH STEAD LANDFILL ATTENDANT	Kenneth Stead	4/23/98

Continued on next page (page 1 of 3)

423-92-329-01

CK# 2134

SANTA BARBARA COUNTY
CLASS III LANDFILL

Ticket no. 98484
-23-1998/Time in/out 10:40/11:33

Weighmaster 4
Vehicle 0000000200
Badge ID
Account 0000200
CASH

Waste Type 09
SPECIAL WASTE

Signature /

Rate ($/ton) 50.00
Minimum Charge 75.00

Src	Description	%	tons	Price
09	SPECIAL WASTE	100	5.180	259.00
	WHITE GOODS			
	MULCH			

Src Description % tons Price

ss lb. 23800 scale 2
e lb. 13440 scale 2
lb. 10360 5.18 tons

Cash Total Price 259.00
COMPUTED NET
Vehicle Capacity

Waste Shipment Record

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
University Hospital		
2. Operator's name and address		Operator's telephone no.
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		WDS phone no.
WASTE RECYCLERS P.O. BOX 600 Niceville, FL		904-835-2125
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity
ACM		Bagged	m³ 40 (yd³)

8. Special handling instructions and additional information
N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K. Livingston Pres	Debbie K Livingston	4/27/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Miguel Medina	miguel A medina	4-27-98
Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site (owner or operator) Billy Rogers
Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson - secretary	Darleen Tolson	4-27-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS
OF NORTH FLORIDA, INC.

184535

P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 4/27 19 98

Customer Name Arden Environmental

Address 2060 N Shannon Ave

Panama City, FL 32401

Truck # _____ Box # _____

Time In 9:00 AM Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			

Asbestos 40yds x 12.00/yd 480.00 plus burial (40.00) = 520.00

CASH _____ CHARGE ✓

Driver Miguel A Pudiman

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

Generator

1. Work site name and mailing address: UNIVERSITY HOSPITAL | Owner's name: Escambia County | Owner's telephone no.: N/A

2. Operator's name and address: Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL | Operator's telephone no.: 904-747-0078

3. Waste disposal site (WDS) name, mailing address, and physical site location: WASTE RECYCLERS P.O. BOX 600 Niceville, FL | WDS phone no.: 904-835-2125

4. Name, and address of responsible agency: DER

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM		Bagged	25	

8. Special handling instructions and additional information: N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K Livingston, Pres	Debbie K Livingston	5/11/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.: 2060 N. Sherman Avenue Panama City, FL 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.	miguel medina	may 11, 1998

Disposal Site

12. Discrepancy indication space

13. Waste disposal site (owner or operator): Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson secretary	Darleen Tolson	5/11/98

Continued on next page (page 1 of 3)

423-92-329-01

WASTE RECYCLERS OF NORTH FLORIDA, INC. 185473

P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 5/ 11 19 98

Customer Name Aztec Environmental

Address 2060 N. Sherman Ave.
Panama City, Fl. 32405

Truck # _____ Box # _____

Time In 1015 am Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			
Asbestos 30yd x $12.00/yd = $360.00 plus $40 burial			$400.00

CASH _____ CHARGE ✓

Driver Jacques Prudhomme

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record

SPW 232

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
AZTEC ENVIRONMENTAL, INC./ 2060 North Sherman Ave. Panama City, FL 32405		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
SANTA ROSA SOLID WASTE DEPT.		850-626-0191
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
ACM		Bagged	2.69 Tons

8. Special handling instructions and additional information

NONE

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K. Livingston, Pres	Debbie K. Livingston	5/26/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish	Joe Parrish	5/28/98
Address and telephone no. Panama City, FL. 32405		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator:

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
GARY Locke Landfill attendant	Gary Locke	5 28 98

Continued on next page (page 1 of 3)

429-92-329-01

[illegible] COUNTY
[illegible]

Ticket no. 10157
5-28-1996/Time in/out 08:16/09:06

Weighmaster 1
Vehicle 00000000200
Badge ID
Account 00000200
CASH

Waste Type 09
SPECIAL WASTE

Signature _____

Rate ($/ton) 60.00
Minimum Charge 75.00

Src	Description	%	tons	Price	Src	Description	%	tons	Price
09	SPECIAL WASTE	100	2.690	134.50					
3	WHITE GOODS								
13	MULCH								

Gross lb. 18520 scale 1
Tare lb. 13140 scale 2
Net lb. 5380 2.69 tons

Cash Total Price 134.50
COMPUTED NET
Vehicle Capacity 17

Waste Shipment Record

SPW#232
Expires 5/17/99

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
AZTEC ENVIRONMENTAL, INC./ 2060 North Sherman Ave. Panama City, FL 32405		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
SANTA ROSA SOLID WASTE DEPT.		850-626-0191
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No. Type	7. Total quantity
ACM	Bagged	m³ 3.16 (yd³) Tons

8. Special handling instructions and additional information

NONE

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K. Livingston, Pres.	Debbie K. Livingston	6/3/98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish	Joe Parrish	6/4/98
Address and telephone no. Panama City, Fl		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator: SANTA ROSA COUNTY

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
KENNETH STEAD LANDFILL ATTENDANT	Kenneth Stead	6-4-98

Continued on next page (page 1 of 3)

AZTEC

V# 2385

SANTA FE COUNTY
CLASS II LANDFILL

Ticket no. 102094 Waste Type 09
6-4-1998/Time in/out 11:13/11:13 SPECIAL WASTE

Weighmaster 3 Signature _____
Vehicle 00000000000
Badge ID Rate ($/ton) 50.00
Account 00006200 Minimum Charge 75.00
CASH

Src	Description	%	tons	Price	Src	Description	%	tons	Price
3	WHITE GOODS								
12	MULCH								
09	SPECIAL WASTE	100	3.160	158.00					

Gross lb. 19420 scale 2 Cash Total Price 158.00
Tare lb. 13100 scale 2 COMPUTED NET
Net lb. 6320 3.16 tons Vehicle Capacity .0

Waste Shipment Record

Generator

1. Work site name and mailing address: UNIVERSITY HOSPITAL
   Owner's name: Escambia County
   Owner's telephone no.: N/A
2. Operator's name and address: Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL
   Operator's telephone no.: 904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location: WASTE RECYCLERS P.O. BOX 600 Niceville, FL
   WDS phone no.: 904-835-2125
4. Name, and address of responsible agency: DER

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM Resiliant Floor File	Bags			30 yds.

8. Special handling instructions and additional information: N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	June 5, 1998

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor & Driver	Joe Parrish	June 5, 1998

Address and telephone no.: 2060 N. Sherman Avenue Panama City, FL 32405

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.:

Disposal Site

12. Discrepancy indication space:

13. Waste disposal site ~~owner~~ or operator: Billy Rogers
Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson Secretary	Darleen Tolson	6-5-98

Continued on next page (page 1 of 3)

429-92-329-01

WASTE RECYCLERS OF NORTH FLORIDA, INC.

187187

P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 6/ 5 19 98

Customer Name Aztec Environmental

Address 3060 N. Sherman Ave.
Panama City Fl. 32405

Truck # ______ Box # ______

Time In 107pm Customer Acct. # ______

	YARDS/TONS	PRICE	TOTAL
CLAY			
FILL DIRT			
C & D MATERIAL			

Asbestos $12 yd x 30yds = $360.00 plus 40.00 burial $400.00

CASH ______ CHARGE ✓ ______

Driver J Parrish

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits at company's facility of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged to all accounts over 30 days. The customer further agrees to pay all principal, interest, or monies expended to enforce collection and/or court costs, attorney fees, or any other fees paid out to locate and collect monies due.

White - Original Invoice • Yellow - Office Copy • Pink Copy - Driver Copy

Waste Shipment Record [redacted]

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
Aztec Environmental, Incorporated/ 2060 N. Sherman Ave Panama City, FL		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
WASTE RECYCLERS P.O. BOX 600 Niceville, FL 32588		904-835-2125
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No.	Type	7. Total quantity m³	(yd³)
ACM				
Floor Tile	Bags		30 yds.	

8. Special handling instructions and additional information

N/A

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Joe Parrish/Supervisor	Joe Parrish	9 June 98

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish/Supervisor Address and telephone no. 2060 N. Sherman Avenue Panama City, FL 32405	Joe Parrish	9 June 98

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site ~~owner or operator~~: Billy Rogers

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Darleen Tolson-Secretary	Darleen Tolson	6-9-98

Continued on next page (page 1 of 3)

429-92-329-01

187548

WASTE RECYCLERS OF NORTH FLORIDA, INC.
P.O. Box 600
Niceville, FL 32588-0600
Freeport Landfill (850) 835-2125
Crestview Landfill (850) 682-0911

INVOICE

DATE 6/9 19 98

Customer Name Oztec Environmental

Address 3060 N. Sherman Ave.
Panama City, FL. 32405

Truck # _____ Box # _____

Time In 1:21pm Customer Acct. # _____

	YARDS/TONS	PRICE	TOTAL
CLAY			
L DIRT			
C & D MATERIAL			

Asbestos $120.00 x 3 yd = 360.00 plus $40.00 burial $400.00

CASH _____ CHARGE ✓

Driver J. Farrell

By signature upon this invoice, customer acknowledges and agrees to the charges and amounts set forth herein and further acknowledges and agrees that no material, substance or item delivered for discard or disposal at Company's facility shall in any way violate any local, state or federal law regarding disposal of same at Company's facility. Customer further expressly covenants and agrees to pay to Company any and all costs incurred by same, including attorney fees, court cost, fines, penalties and remedial costs, if any, resulting from deposits of any material, substance or item in violation of applicable local, state or federal law. A 1 1/2 percent late fee will be charged and further agrees to pay all principal, interest, or monies expended to enforce collection and/or coun collect monies due.

Driver Copy

Waste Shipment Record

SPW #232
Expires 5/17/99

Generator

1. Work site name and mailing address	Owner's name	Owner's telephone no.
UNIVERSITY HOSPITAL	Escambia County	N/A
2. Operator's name and address		**Operator's telephone no.**
AZTEC ENVIRONMENTAL, INC./ 2060 North Sherman Ave. Panama City, FL 32405		904-747-0078
3. Waste disposal site (WDS) name, mailing address, and physical site location		**WDS phone no.**
SANTA ROSA SOLID WASTE DEPT.		850-~~626-0191~~ 623-9834
4. Name, and address of responsible agency		
DER		

5. Description of materials	6. Containers No. Type	7. Total quantity m³ (yd³)
ACM	Bagged	2.15 Tons

8. Special handling instructions and additional information

NONE

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Debbie K. Livingston, President	Debbie K. Livingston	7/14/98

Transporter

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Joe Parrish / Supervisor	Joe Parrish	7/16/98
Address and telephone no. S.A.A.		

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator:

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Sherwin M. Holland, Landfill Att.	Sherwin M Holland	7-16-98

Continued on next page (page 1 of 3)

SANTA [illegible] COUNTY
[illegible] LANDFILL

Ticket no. 106077
7-16-1998/Time in/out 11:30/11:45

Waste Type 09
SPECIAL WASTE

Weighmaster 4
Vehicle 000000000200
Badge ID
Account 0000200
CASH

Signature ____________________

Rate ($/ton) 50.00
Minimum Charge 75.00

Src	Description	%	tons	Price	Src	Description	%	tons	Price
09	ASBESTOS	100	2.150	107.50					
3	WHITE GOODS								
12	MULCH								

Gross lb. 36900 scale 2
Tare lb. 32600 scale 2
Net lb. 4300 2.15 tons

Cash Total Price 107.50
COMPUTED NET
Vehicle Capacity

AZTEC
ENVIRONMENTAL, INC.

WRITTEN COMPLIANCE PROGRAM

Compliance Program

Prior to each job where employee exposure exceeds the PEL, the employer must establish and implement a written compliance program to reduce employee exposure to the PEL or below. The compliance program must provide for frequent and regular inspections of job sites, materials, and equipment by a competent person.[5] Written programs, which must be revised and updated at least every 6 months, must include the following:

- a description of each activity in which lead is emitted (e.g., equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices);
- specific plans to achieve compliance and engineering plans and studies where engineering controls are required;
- information on the technology considered to meet the PEL;
- air monitoring data that document the source of lead emissions;
- a detailed schedule for implementing the program, including copies of documentation (e.g., purchase orders for equipment, construction contracts);
- a work practice program including regulations for the use of protective work clothing and equipment and housekeeping and hygiene facility guidelines;
- an administrative control schedule for job rotation, if used;
- a description of arrangements made among contractors on multi-contractor sites to inform affected employees of potential exposure to lead and their responsibility to comply with this standard; and
- any other relevant information.

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

is proud to acknowledge that

Schneider Laboratories, Inc.
Richmond, VA
Laboratory ID# 8936

has fulfilled the requirements for the Environmental Lead Laboratory Accreditation Program and has earned distinguished recognition as an

AIHA ELLAP ACCREDITED LABORATORY

June 6, 1997 through June 6, 2000

In the following matrices: PAINT SOIL DUST AIR

This program is recognized by the EPA as meeting the requirements of the National Lead Laboratory Accreditation Program established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Zack Mansdorf

Zack Mansdorf, PhD., CIH, CSP
President, American Industrial Hygiene Association

Lisa A. Constantine

Lisa A. Constantine, CIH
Chair, Environmental Lead Laboratory Accreditation Committee

Donald J. Hart

Don Hart, Ph.D., CIH
Chair, Analytical Accreditation Board

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

EQUAL EDUCATIONAL OPPORTUNITIES OFFICE
MINORITY/WOMEN BUSINESS ENTERPRISE DIVISION

This certifies that

SCHNEIDER LABORATORIES, INCORPORATED

has successfully met the requirements for certification established by the School Board of Broward County, Florida Minority/Women Business Enterprise Division as a (an)

WHITE FEMALE (WBE)

JUNE 30, 1997
Effective Date

JUNE 30, 1999
Expiration Date

7007-2254-95 (BIC)
Certification Number

Shelia Dudley

Shelia Dudley, EEO Director

Certificate # 97-8291071

Expiration Date JUNE 30, 1999

NORTH BROWARD HOSPITAL DISTRICT

Certifies

SCHNEIDER LABORATORIES, INC.

As a Minority/Woman Business Enterprise in accordance with the policies and procedures as prescribed by the Board of Commissioners, North Broward Hospital District for certification.

North Broward Hospital District

LaRae P. Staples, Coordinator
Business Development

L.D. Gainey II, Director
Minority /Women Business Affairs Department

The North Broward Hospital District is an equal opportunity employer and affirmative action procurer of goods and services.

P 2952 - 1/962 - (Rev. 1/95)

DISPOSABLE TOWELS

Multi-ply disposable bath towels that have the feel of cloth, but the convenience and price of a disposable. Ideal for after decontamination showers and for cleaning equipment.

There are two styles available:

- Biodegradable
- Lint free
- 300 per case
- 17" x 43½" (large, very comfortable).

Part No. 6006

- Economy 2-ply construction/scrim reinforced.
- 300 per case
- 18¾" x 39"

Part No. 6006-01

SOAP/SHAMPOO

Convenient soap and shampoo in one. Low sudsing, anti-bacterial, biodegradable soap is perfect for decontamination showers.

- 32 ounce pump bottle

Part No. 6014

- 6 ounce hang bottle

Part No. 6014-01

WARNING SIGNS

(Meet OSHA and EPA requirements)

- 14" x 20" Asbestos danger sign made from styrene (water proof) 100 per case.

Part No. 6003

- 11" x 17" Danger sign made of heavy card stock (OSHA red, white and black) 1000 per case.

Part No. 6003-01

LABELS

Self-adhering asbestos danger labels quickly alert the public to the presence of hazardous fibers. Labels printed on pressure-sensitive paper for easy application.

- 3" x 5"
- 4 rolls per case
- Available in 3 styles:

"Danger" *Part No. 6015-01* (500 per roll)

"Asbestos Present" *Part No. 6015-02* (70 per roll)

"Asbestos Free" *Part No. 6015-03* (70 per roll)

BARRIER TAPE

Restrict access to asbestos tearout/abatement areas with 2 styles of prominent barrier tape.

- 3" x 1000' rolls
- 8 rolls per case
- Comes in dispenser box
- Available in ANSI standard black/red.

Part No. 6004

- Available in OSHA red/black/white.

Part No. 6004-01

POLY-AMERICA

FLAME RETARDANT POLYETHYLENE FILM

IDEALLY SUITED FOR ANY APPLICATION REQUIRING A PROTECTIVE COVERING WITH FLAME RETARDANT CHARACTERISTICS

TEST RESULTS

	4 MIL	6 MIL
BURNING CHARACTERISTICS FLAME SPREAD SMOKE DEVELOPMENT	 5 ft. 45 - 70	 5 ft. 45 - 70
TENSILE STRENGTH MD TD	 2000 psi 1700 psi	 2000 psi 1700 psi
ELONGATION MD TD	 350% 400%	 350% 400%
DART IMPACT	165 grams	245 grams
WATER VAPOR TRANSMISSION RATE	0.35g/ 100in²/day	0.24g/ 100in²/day

POLY-AMERICA'S FLAME RETARDANT FILM IS MADE FROM RESIN QUALIFIED UNDER UNDERWRITERS LABORATORIES FOR FLAME RETARDANT SHEETING BY UL TEST METHOD UL 723, FILE NUMBER R11917, PROJECT 86RT2682.

THE ABOVE BURNING CHARACTERISTICS ARE CLASSIFICATION VALUES SET FORTH BY U.L.

STOCK SIZES

STOCK #	LENGTH	WIDTH	GAUGE	WT/ROLL	ROLLS/PALLET
F9408	100'	8'4"	.004	15.9	84
F0420	100'	20'	.004	38.2	30
F0620	100'	20'	.006	57.4	20

CUSTOM SIZES AVAILABLE
FOR CURRENT PRICING AND DELIVERY CALL

800-527-3322

2000 W. Marshall Dr. • Grand Prairie TX 75051 • (214) 647-4374 • Telex 79-2851

POLY-AMERICA Inc.
2000 W. Marshall Drive Grand Prairie, Texas 75051
800-527-3322 214-647-4374 Telex 79-2851

April 12, 1990

POLY-AMERICA, INC.

FLAME RETARDANT FILMS

Poly-America's flame retardant films, 420FRW, 620FRW, 4100FRW and 620ASFRW all meet NFPA 701's Field Match Flame Test.

This test specifies that the film will not have more than two seconds of afterflame and any drip will self extinquish upon hitting the floor.

cc: Hall
Kramer
Craig
Nobert

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)
Husky Flame Retardant

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name
POLY-AMERICA, INC.

Address (Number, Street, City, State, and ZIP Code)
2000 W. Marshall Dr.
Grand Prairie, Texas 75051

Emergency Telephone Number
214/647-4374

Telephone Number for Information
214/647-4374

Date Prepared
4/27/88

Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
No hazardous components				
Ingredients: Polyethylene (Union Carbide)				91.5%
PM1101 (Techmer)				8.5%
Common Name: Flame retardant polyethylene sheeting				

Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H_2O = 1)	0.925
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water
Negligible

Appearance and Odor
.004" or .006" clear film with no odor

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
N/A	N/A		

Extinguishing Media
Water spray, dry chemical, or CO_2

Special Fire Fighting Procedures
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards
N/A

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid N/A
	Stable	X	

Incompatibility (*Materials to Avoid*) N/A

Hazardous Decomposition or Byproducts
Combustion will produce carbon dioxide and probably carbon monoxide.

Hazardous Polymerization	May Occur		Conditions to Avoid N/A
	Will Not Occur	X	

Section VI — Health Hazard Data

Route(s) of Entry: Inhalation? N/A Skin? N/A Ingestion? N/A

Health Hazards (*Acute and Chronic*) Nontoxic

Carcinogenicity: N/A NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure N/A

Medical Conditions Generally Aggravated by Exposure N/A

Emergency and First Aid Procedures N/A

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Collect and contain for salvage or disposal.

Waste Disposal Method
Incineration or landfill. Observe all federal, state, and local laws concerning health and environment.

Precautions to Be Taken in Handling and Storing
Keep from contact with oxidizing materials.

Other Precautions
None

Section VIII — Control Measures

Respiratory Protection (*Specify Type*) N/A

Ventilation	Local Exhaust	N/A	Special	N/A
	Mechanical (General)	N/A	Other	N/A
Protective Gloves		N/A	Eye Protection	N/A

Other Protective Clothing or Equipment N/A

Work/Hygienic Practices N/A

PLANT
303 IND. BLVD.
VALDOSTA, GA.

TM poly film inc.

PHONE
(912) 247-7734

MATERIAL SAFETY DATA SHEET
"TERMINATOR" GLOVE BAGS

Color --------------------Clear

Resin---------------------Eastman Chemical Products
Tenite Polyethylene #E1696-007P
High-Clarity 3% EVA

PHYSICAL PROPERITIES DETERMINED

Thickness(mils)-----------.006
Melt Index----------------1.4
Density-------------------.924
Haze(%)-------------------18
Gloss---------------------66
Transparency(%)-----------30
Elmendorf Tear(gm)-----MD-442--TD-906
Tensile Strength (PSI)
yield--MD-1630-TD-1630
fracture--MD-1980-TD-2140
Elongation(%)
yield--MD-27--TD-26
fracture--MD-574-TD-728
Dart Impact---------------401
Burst Strength------------235 lbs.

Gloves--------------------Extra Large, Flocked Lined

Pouch-------------4mil---yellow

Sleeves-----------4mil---yellow

Port Entry(opt)---4mil---yellow

Bags are Bottom Sealed

Danny Moss

~~Plant~~ Manager

A TITTLE-MORRISON ENTERPRISE

PLANT
503 IND. BLVD.
VALDOSTA, GA.

TM poly film inc.

PHONE
(912) 247-7734

December 1, 1989

FLAME RETARDANT FILM

20' x 100'	6 mil	12' x 100'	4 mil
20' x 100'	4 mil	10' x 100'	6 mil
12' x 100'	6 mil	10' x 100'	4 mil

Special sizes available on request.

T.M. Polyfilm flame retardant film has been tested and approved to meet the Universal Building Code, ASTM-E-84. The flame retardant poly has a flame spread of 15 and smoke density of 15.

T.M. Poly film also meets large scale 701, National Fire Protection Assoc.

Danny Moss

Danny Moss
Plant Manager

PLANT
503 IND. BLVD.
DOSTA, GA.

poly film inc.

PHONE
(912) 247-7734

January 5, 1990

SPEC. SHEET / ASBESTOS BAG

Colors available: Yellow, Clear, Black

Opacity: Yellow - 35
Black - 99

Dart: (grams) 446

Tensile: (PSI) MD 2806
TD 2777
(LBS) MD 1343
TD 1084

Elongation: MD 1048
TD 1213

Elemdorf Tear: MD 693
(grams) TD 1008

Slip Level: Medium

Bottom Seal: 63

Danny Moss

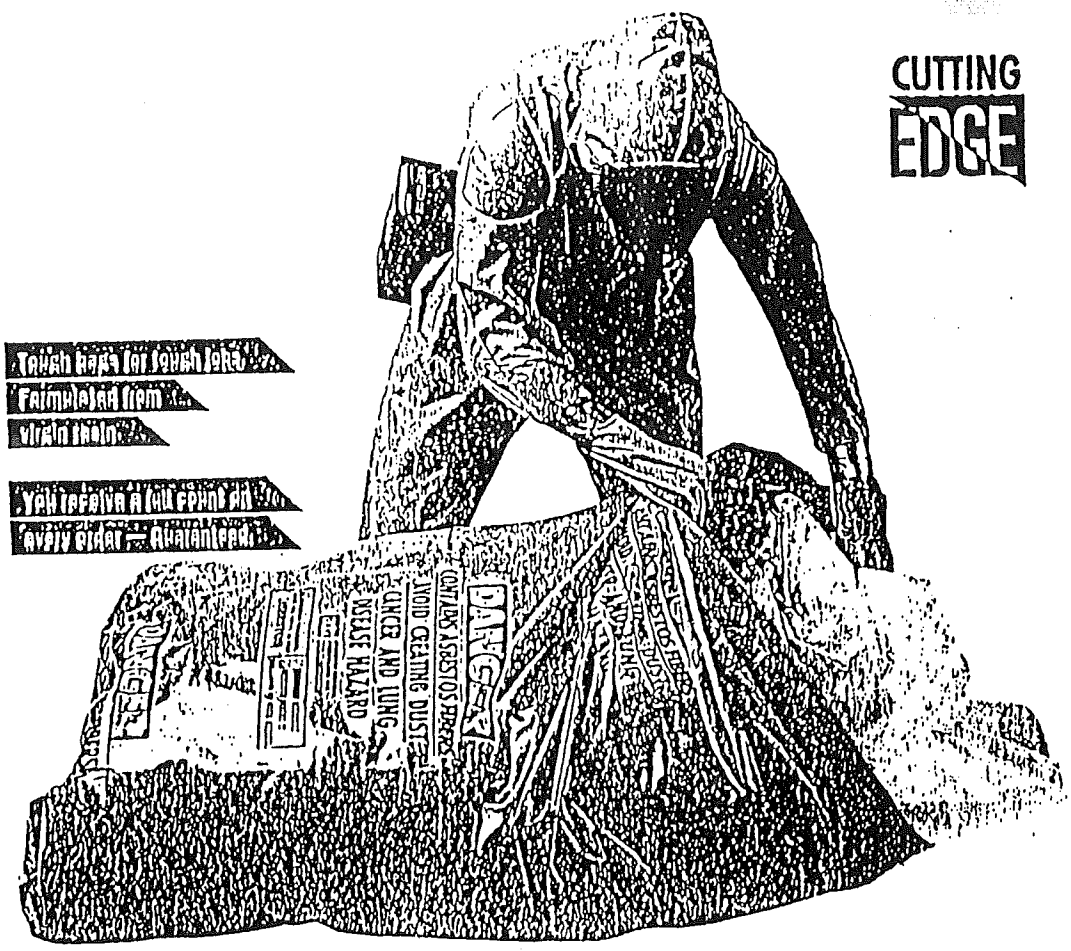
Danny Moss
Plant Manager

Asbestos Waste Disposal

ACTI Poly Waste Bags

Ordinary bags rip, pull and tear. Not ACTI bags. Designed for the rigors of asbestos abatement, ACTI bags are formulated from virgin resin — the best, most durable material — to create the sturdiest bags on the market today.

And ACTI is the only manufacturer that *guarantees* a full count of bags on every order. With ACTI, you get what you pay for — in quality and count. Guaranteed.



SERIES 300
POLYETHYLENE BAGS

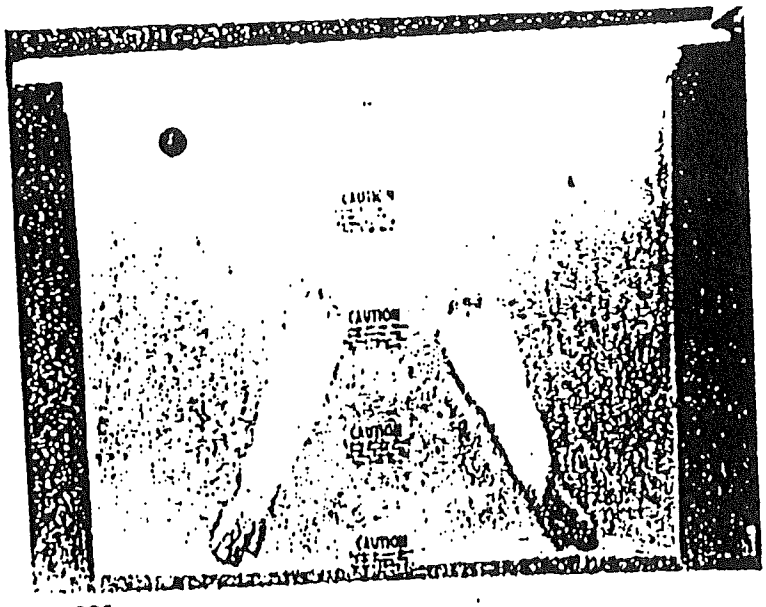
No. 301

CRSI polyethylene bags are made of the best resins to insure the dependability you need. All products are tested to insure mil. standards and quality the asbestos industry requires. Our bags are printed with labeling needed to save you the hassel and expense of labeling. We also have unlabeled if the need arises.

Poly Bags

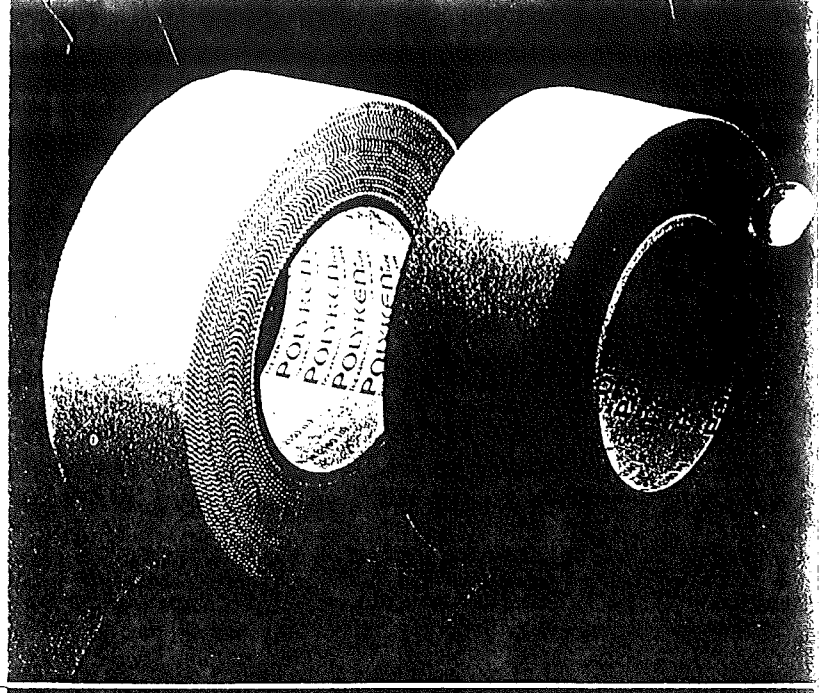
No.	Description	Qty/Case
301	33 x 40 6 mil. w/print (Asbestos Warning)	100
302	33 x 40 6 mil. w/o print	100
303	33 x 60 6 mil. w/print (Asbestos Warning)	75
304	33 x 60 6 mil. w/o print	75
305	60 x 60 6 mil. SAF/SAC (Glove Bag) w/print (Asbestos Warning)	10
308	33 x 40 4 mil. w/print (Asbestos Warning)	200


No. 303


No. 305

POLYPREP 809
POLYETHYLENE FILM TAPES

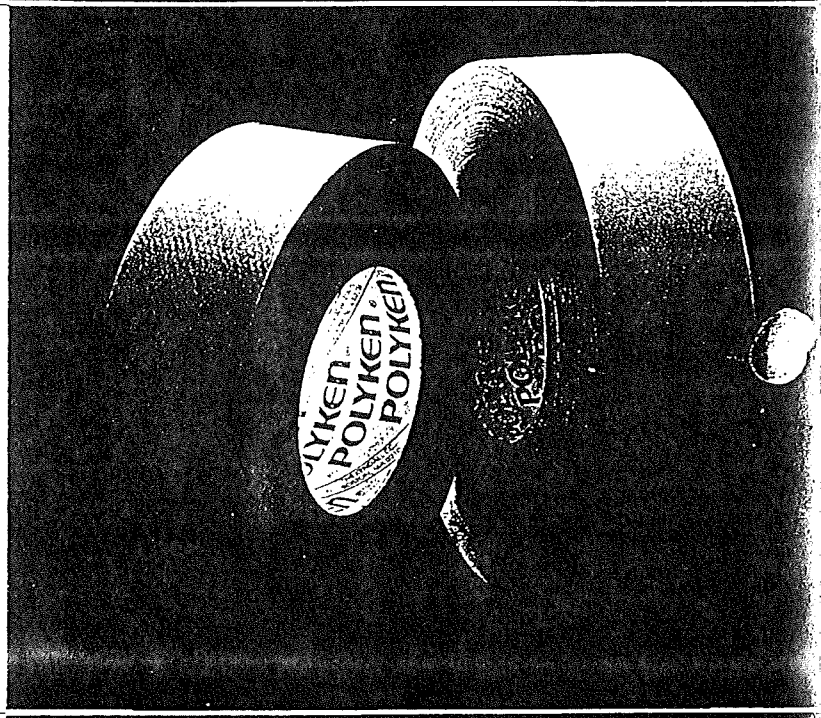
This high shear rubber adhesive tape was specifically designed as a universal abatement prep tape. 809 is highly conformable and will withstand the unusual conditions inherent to the abatement process. The shear strength of 809 allows it to stretch yet still provides excellent adhesion under extreme temperatures and humid conditions. Specially cut "pinked" edges assure fast, easy tears. Available in a discernible yellow, and in silver.



POLYKEN 223/257
CLOTH REINFORCED TAPES

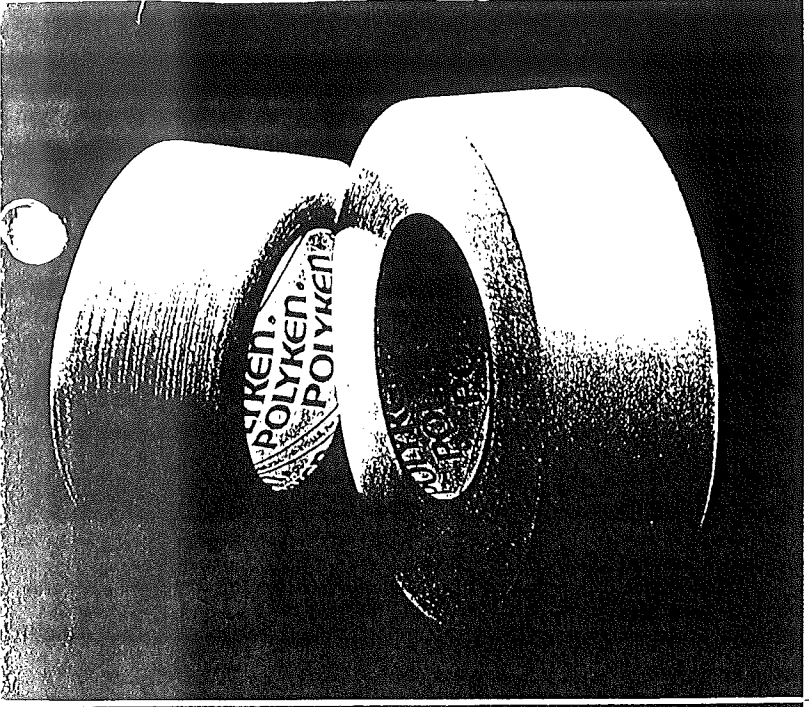
Polyken 223 Tape is an economy grade polyethylene coated cloth tape with an aggressive adhesive system. Polyken 223 is the ideal general purpose duct tape with good all around performance characteristics for seaming, sealing, and hanging polyethylene, as well as goosenecking asbestos disposal bags.

Polyken 257 Tape is a professional grade polyethylene coated tape with high performance, high tack adhesive. This 14 mil tape is the thickest, heaviest product on the market. Its high tensile, shear, and adhesion properties make it the tape of choice when highest performance is demanded.



POLYPREP 86/88
SPRAY ADHESIVES

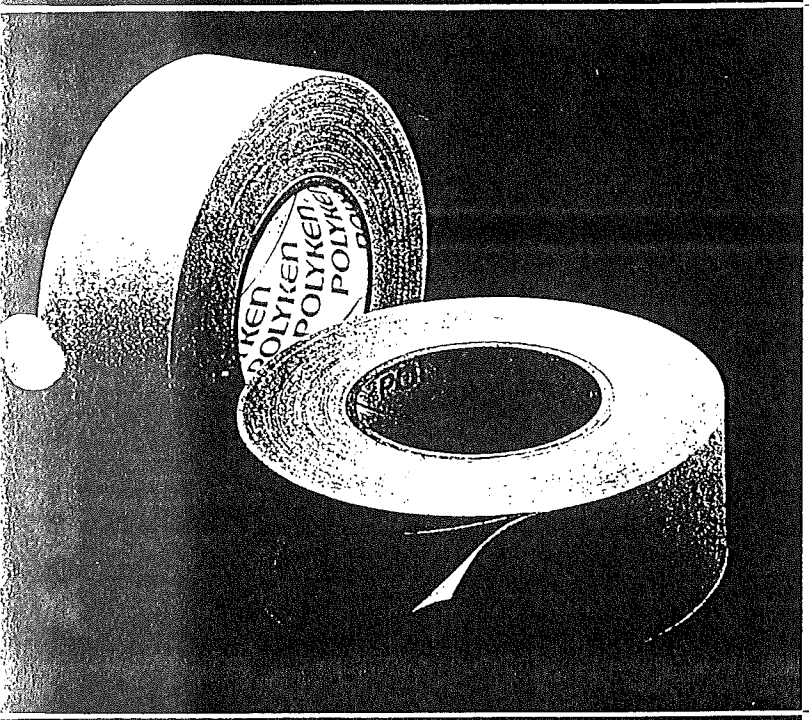
Polyprep 86 and Polyprep 88 are high strength, high coverage aerosol adhesives formulated to bond polyethylene to building surfaces to include painted and unpainted concrete. They provide a fast, aggressive tack and low soak-in for long lasting bonds. During spraying, the adhesive will not string or run at normal working temperatures (40°-120°F). Both spray white for easy visibility and will dry clear.



POLYKEN 832/827
POLYETHYLENE FILM TAPES

Polyken 832 is a transparent polyethylene film tape with a specifically formulated ultra violet resistant adhesive. Designed specifically for application to glass and Plexiglas, 832 is easily removed without any adhesive residue, even when left in place over an extended period of time. The high labor cost involved with clean up is eliminated!

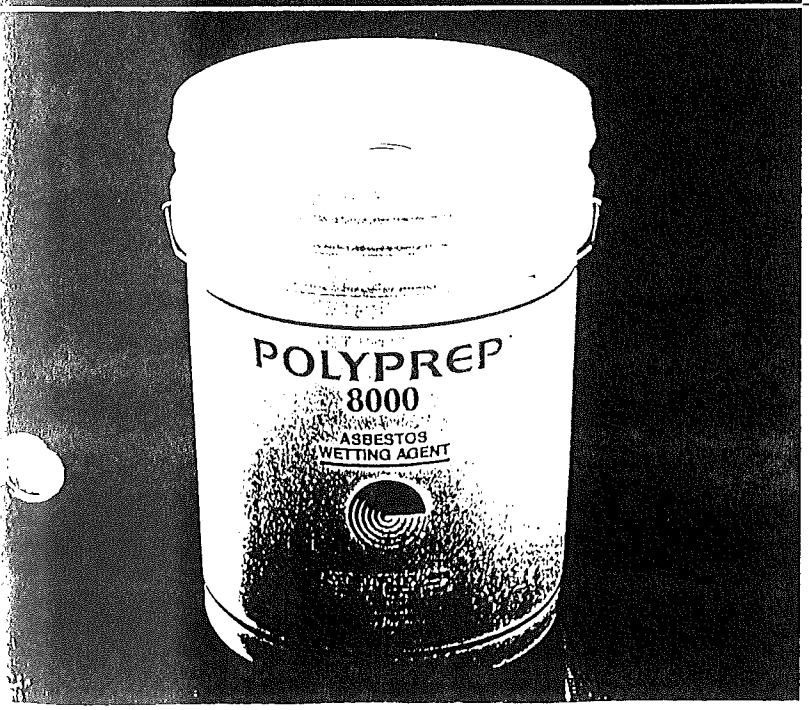
Polyken 827 White is a high performance polyethylene film tape with a unique adhesive system engineered by Polyken. 827 is an excellent high tensile, all purpose tape with exceptional conformability and superior adhesion to all surfaces, particularly when seaming polyethylene sheeting.



POLYKEN TC19-100
DOUBLE SIDED TAPES

Polyken TC19-100 is a double coated cloth tape, (adhesive on both sides), which is utilized to provide additional support during the most difficult prepping applications. This tape is faced with a silicone coated paper interliner for easy unwind.

TC19-100 is very easy to use, can reduce clean up time, and therefore cut labor costs up to 50%. TC19-100 is a thick, 13 mil tape which will virtually leave no residue upon removal.



POLYPREP 8000
ASBESTOS WETTING AGENT

Polyprep 8000 is an industrial grade wetting agent (or surfactant) specifically formulated for use in wetting asbestos as required by the EPA.

Polyprep 8000 provides highly economic dilution ratios and is unsurpassed in wetting asbestos — even Amosite.

The proper use of Polyprep 8000 will ensure the manageable removal of airborne asbestos fibers during abatement procedures, as well as further reduce health hazards encountered in normal asbestos removal.

Critical Systems TM
A Division of Critical Industries, Inc.

March 14, 1990

To Whom It May Concern:

The Critical System's disposable protective coveralls are manufactured to comply with sizing standards set forth in A.N.S.I./I.S.E.A. Standard #101-1985.

Willie Stollenwerck

Willie Stollenwerck
General Manager, Critical Systems

5815 Gulf Freeway • Houston, Texas 77023 • Phone: (713) 921-4888 • Fax: (713) 921-7924

KLEENGUARD BP COVERALLS—Basic Protection

Economical protection for short-term use.

KLEENGUARD® BP Coveralls offer workers economical protection against asbestos fibers and many particles. The fabric allows air to pass through to evaporate perspiration and cool the skin. Your workers are more comfortable and less at risk for heat stress. Use in light duty or short duration tasks such as asbestos abatement, light manufacturing and food processing environments with limited liquid contact.

- *Affordable for short-duration use*
- *Fabric filters out asbestos fibers and many particles*
- *Breathable fabric for worker comfort and productivity*

KLEENGUARD BP COVERALLS

Stock No.	Size		Case Quantity
White			
49003	Large	(42-44)	24
49004	X-Large	(46-50)	24
49005	XX-Large	(52-56)	24
49006	XXX-Large	(58-60)	20
White - Attached hood and boots			
49023	Large	(42-44)	24
49024	X-Large	(46-50)	24
49025	XX-Large	(52-56)	24
49026	XXX-Large	(58-60)	20

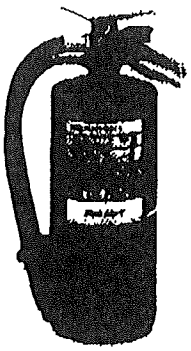
Fire Extinguishers

First Alert dry chemical fire extinguishers are built to the same high standards that have made BRK Electronics smoke detectors number one world-wide. The line includes sizes to meet fire fighting needs in the home, shop, office, vehicle, and boat.

FE5

FESA5

FE10A60



KFE2S5

FE2A10

FE10
FE1A10

Vehicle/Recreation Features

- Sodium bicarbonate agent
- Canister meets DOT requirements
- Designed for grease, oil, gasoline, and electrical fires
- Disposable
- Five-year limited warranty
- UL listed

Model FE5

Recreational Plus

Rated 5-B:C. U.S. Coast Guard approved bracket for marine use. For garage, boat, RV, van, or camper use.

Model FESA5

Auto

Rated 5-B:C. Compact design. Protective head bracket to prevent accidental discharge.

Household/Business Features

- Canister meets DOT requirements
- Designed for grease, oil, gasoline, and electrical fires
- Five-year limited warranty
- UL listed

Model KFE2S5

Kitchen

Rated 5-B:C. Compact design. Sodium bicarbonate agent. Disposable.

Model FE1A10

General Household

Rated 1-A:10-B:C. Monoammonium phosphate agent. Disposable. Designed for wood, paper, fabric and plastic fires as well as grease, oil, gasoline, and electrical fires. U.S. Coast Guard approved bracket for marine use.

Model FE10A60

Commercial

Commercial multi-purpose fire extinguisher. Rated 10-A:60-B:C. Rechargeable. Monoammonium phosphate agent. Designed for wood, paper, fabric and plastic fires as well as grease, oil, gasoline, and electrical fires.

Model FE10

Garage/Workshop

Rated 10-B:C. Compact design. Sodium bicarbonate agent. Disposable. U.S. Coast Guard approved bracket for marine use.

Model FE2A10

Heavy-Duty

Rated 2-A:10-B:C. Large easy-to-read gauge. Easy-grip handle. Mounting bracket. Rechargeable. Monoammonium phosphate agent. Designed for wood, paper, fabric and plastic fires as well as grease, oil, gasoline, and electrical fires.

Quick Reference

Model	Rating	Chemical Agent	Agent Weight
KFE2S5	5-B:C	Sodium bicarbonate	1.2 lbs
FESA5	5-B:C	Sodium bicarbonate	1.2 lbs
FE5	5-B:C	Sodium bicarbonate	2.0 lbs
FE10	10-B:C	Sodium bicarbonate	2.5 lbs
FE1A10	1-A:10-B:C	Monoammonium phosphate	2.5 lbs
FE2A10	2-A:10-B:C	Monoammonium phosphate	4.5 lbs
FE10A60	10-A:60-B:C	Monoammonium phosphate	10.0 lbs

BRK Electronics 780 McClure Road Aurora, Illinois 60504 708 851-7330

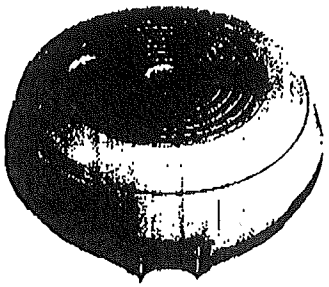
Smoke Detectors

AC Operated with Battery Backup

Ionization

AC operated with battery backup provides security in the event of power interruption.

Model 86RAC	Features
An interconnectable AC operated smoke detector that provides battery backup with a standard 9V battery in an easy-access drawer. Once the battery drawer is opened, the low battery signal stops and the drawer cannot be closed until a fresh battery is installed.	• Dual chamber ionization sensor • 120V AC powered with battery backup • 9V battery supplied • Interlock prevents drawer from closing when battery is removed as a reminder to replace with a fresh battery • Screened stainless steel dual chamber withstands tough environments better • Interconnectable up to 12 units • Loud 85dB alarm horn • Test switch checks detector functions by simulating the entry of smoke per UL specifications • An interconnected system operating under AC power will identify an alarming detector by shutting off its LED (other LEDs remain on) • Easy-to-install oversized bracket is designed to cover flaws when drywall cutouts are less than perfect • Fits electrical boxes up to 4" octagonal • Keyed bracket does not require screw removal • "Quick-connect" speedwire installation • Low-cost operation requires only 25% of power used by most competitors • Coated, moisture resistant PC board • One-year limited warranty • UL 217 listed



86RAC

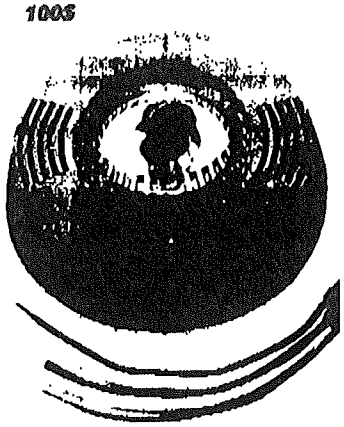
Smoke Detectors

For the Hearing Impaired

AC Operated, Ionization

Smoke detector for the hearing impaired meets the requirements for the Americans with Disabilities Act of 1990.

Model 100S	Features
Designed for people who are hearing impaired, and also designed for both single and multiple station use, up to 12 units. Its strobe meets UL 1971 requirements of 177 candela rating and flashes an average of 60-70 times a minute.	• Meets UL 1971—Signaling devices for the hearing impaired • Meets UL 217—Single station smoke detectors • Meets requirements of the Americans with Disabilities Act of 1990 • Easy to install one-piece unit meets all ADA and UL specifications for installation on either walls or ceilings • Powered directly from 120V AC, 60Hz • Loud 85dB alarm horn • Test button checks all detector and strobe function • Solid-state power-on indicator lamp (LED) • Insect-resistant screen minimizes nuisance alarms • Interconnectable with other BRK models: 86RAC, 4919, 5919, 5919TH, and 100S—up to 12 units



100S

BRK Electronics 780 McClure Road Aurora, Illinois 60504 708 851-7330

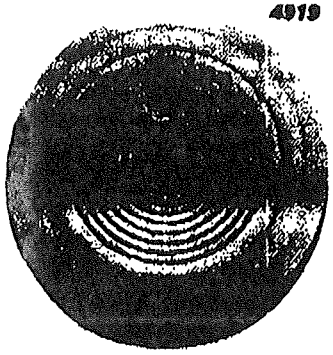
Smoke Detectors

AC Operated

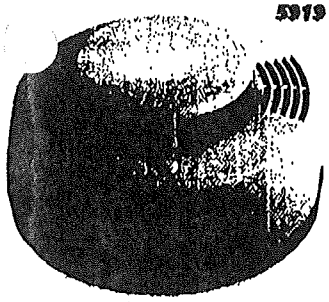
Ionization / Photoelectronic / Thermal

Photoelectronic and Ionization models are designed for single and multiple station use connecting up to 12 units. When connected, a single unit detecting smoke will turn off its LED light and trigger the alarm horns of the other units.

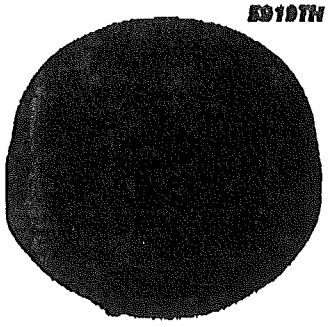
4919



5919



5919TH



Ionization

Model 4919	Features
Ionization unit designed for single and multiple station use.	• *Small, compact size* • *Easy, plug-in connector for wiring* • *Mounting bracket has large opening for feeding wires* • *New design eliminates the need for a gasket* • *Stainless steel chamber* • *Powered directly from 120V AC, 60 Hz* • *Loud 85dB alarm horn* • *Solid-state power-on indicator lamp (LED)* • *Insect-resistant screen minimizes nuisance alarms* • *Interconnectable—up to 12 units* • *Mounts to any box up to 4" octagon size and does not require screw removal* • *Special shielding for RF immunity* • *Listed to UL 217 and meets FCC Standard for lightning protection*

Photoelectronic / Thermal

Model 5919	Features
Photoelectronic unit designed for single and multiple station use.	• *Powered directly from 120V AC, 60 Hz* • *Loud 85dB alarm horn* • *Test button checks all detector functions* • *Solid-state power-on indicator lamp (LED)* • *Interconnectable—up to 12 units* • *Samples air every 5 seconds for smoke* • *Insect-resistant screen minimizes nuisance alarms* • *Easy mounting bracket has tamperproof option* • *Mounts to any box up to 4" octagon size and does not require screw removal* • *Special shielding for RF immunity* • *Listed to UL 217 and meets FCC Standard for lightning protection*
Model 5919TH	
Same as 5919 except it also has a thermal sensor which activates at 135° F.	

Reference Model	Power Supply	Detection	Max. Interconnectable	LED	Comments
4919	120V AC	Dual Chamber Ionization	12	Yes	Single and multiple-station use
5919	120V AC	Photoelectronic	12	Yes	Single and multiple-station use
5919TH	120V AC	Photoelectronic	12	Yes	Thermal Sensor
1005	120V AC	Dual Chamber Ionization	12	Yes	Single and multiple-station use
86RAC	120V AC 9V DC battery	Dual Chamber Ionization	12	Yes	Single and multiple-station use

BRK Electronics 700 McClure Road Aurora, Illinois 60504 708 851-7330

Smoke Detectors

Battery Operated

Ionization / Photoelectronic

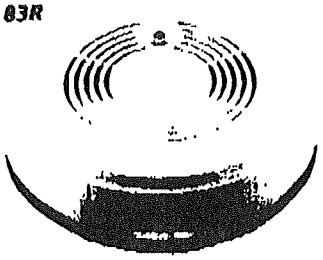
These battery operated models come complete with a standard 9V battery. An 85dB alarm horn, a full-function test switch, and flashing LED are standard.

Model 83R Ionization	Features	
High reliability and fast installation—two-fastener attachment; hardware included.	• Dual chamber ionization sensor • Low profile design • Screened stainless steel dual ionization chamber withstands tough environments better • Hinged cover for easy battery replacement (cover will not close without battery)	• 9V battery supplied • Flashing LED power indicator • One-year limited warranty • UL 217 listed

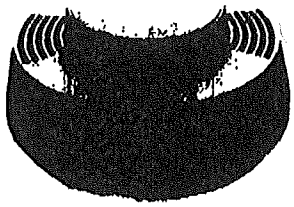
Model 2002 Photoelectronic	Features	
All-around protection, easy installation, and low cost operation.	• Photoelectronic sensor • Easy installing twist-on bracket with tamper proof option (detector will not install without batteries)	• Flashing LED power indicator • 9V battery supplied • One-year limited warranty • UL 217 listed

Model 3001 Combination	Features	
Dual ionization and photoelectronic Maximum protection with dual ionization and photoelectronic systems in one unit.	• Both ionization and photoelectronic sensing detects flaming or smoldering fires • Easy installing twist-on bracket with tamper proof option (detector will not install without batteries) • Screened stainless steel dual ionization chamber withstands tough environments better	• Can be set less sensitive for areas highly prone to false alarms • Flashing LED power indicator • 9V battery supplied • Two buttons to test both detection functions • One-year limited warranty • UL 217 listed

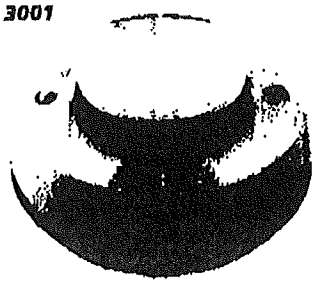
83R



2002



3001



Model	Power Supply	Detection	Max. Interconnectable	LED	Comments
83R	9V DC battery	Dual Chamber Ionization	-	Yes	Surface Mount
2002	9V DC battery	Photoelectronic	-	Yes	Twist-on bracket with tamper proof option
3001	9V DC battery	Ionization & Photoelectronic	-	Yes	Two sensing technologies for max. protection

DECONTAMINATION PROCEDURES

The Company will furnish, when possible, a mobile decontamination unit designed according to our specifications of all the agencies responsible for the monitoring and regulation of the lead abatement field. When the use of these units is not possible, The Company personnel will build a portable decontamination chamber in adherence with the same rules and regulations.

All visitors entering contaminated areas will be expected to wear all the protective equipment provided to the employees and will have to follow the required decontamination procedures before leaving the building. The Company will furnish and have available personal protective equipment and respirators for architectural firms, representatives making inspections, and local, state, and federal inspectors. These respirators will be labeled and kept for the duration of the project for their exclusive use.

Signs bearing hazardous materials labels will be placed at all entrances.

Barriers will be constructed and guard may be used during off hours; no one other than authorized personnel will be allowed to enter building until clean air has been abtained as specified by OSHA regulations.

Every person entering the building, employees and visitors, will be required to sign The Companies log book before entering the contaminated area. To leave the work area, the following procedures will be followed:

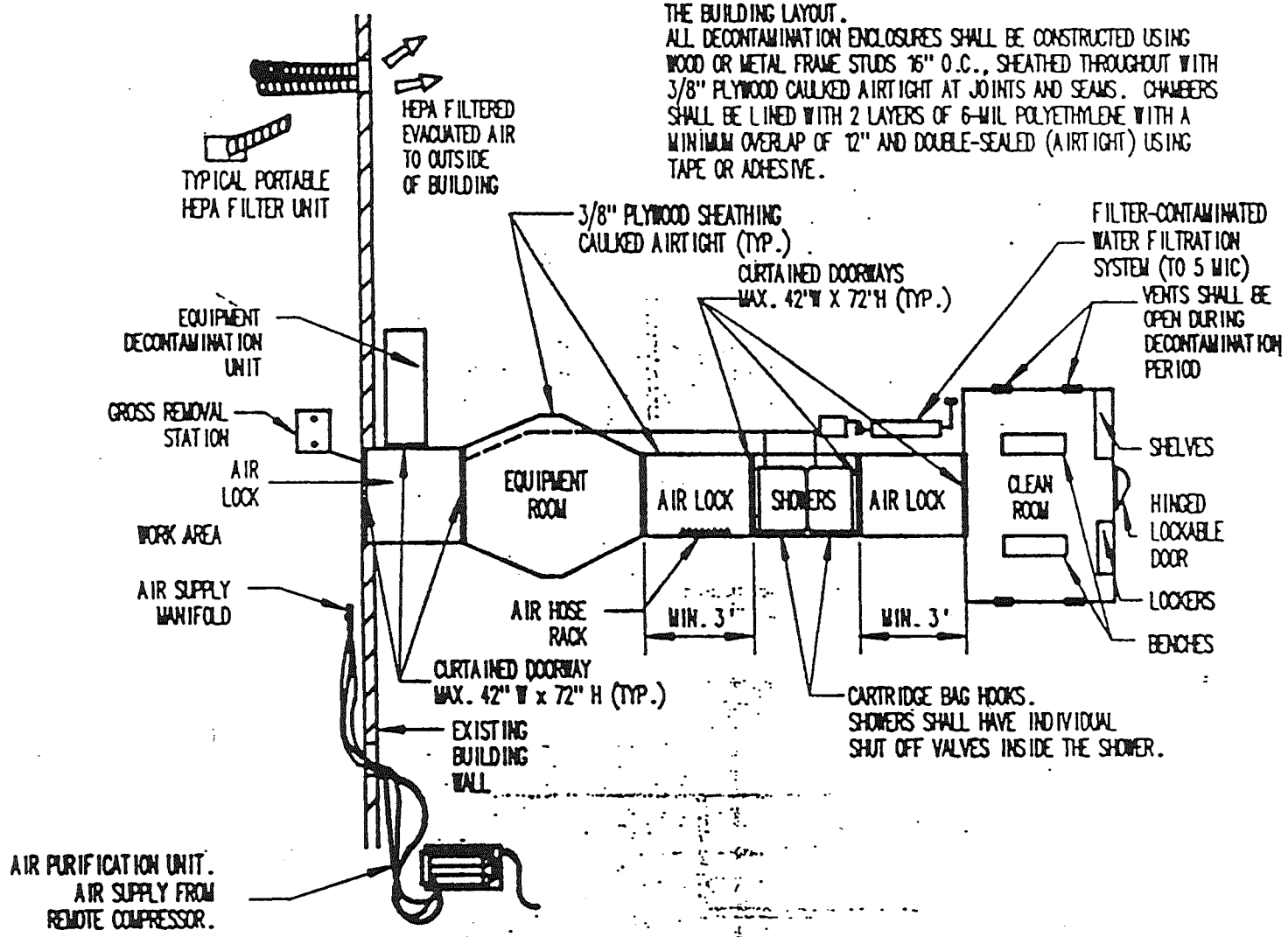
A. Enter dirty room and remove disposable clothing; leave respirator on - DO NOT REMOVE!

B. Enter shower and wash thoroughly with respirator in-place. Be sure to rinse all lead material off of the respirator before leaving shower.

C. Once all the lead material has been washed off, enter the clean area and remove respirator. Place respirator in the assigned area and go to the dressing room to change into your own clothing.

D. Sign out in the log book and note any comments.

AREAS WHERE THE DECONTAMINATION UNIT IS LOCATED
. SECURE AREA INACCESSIBLE TO UNAUTHORIZED INDIVIDUALS, -
THE REQUIREMENT FOR PLYWOOD SHEATHING MAY BE WAIVED.
ALL PLYWOOD SHALL BE EXTERIOR GRADE. ALL JOINTS
SHALL BE STRAIGHT.
A LINEAR ARRANGEMENT MAY OR MAY NOT FIT
THE BUILDING LAYOUT.
ALL DECONTAMINATION ENCLOSURES SHALL BE CONSTRUCTED USING
WOOD OR METAL FRAME STUDS 16" O.C., SHEATHED THROUGHOUT WITH
3/8" PLYWOOD CAULKED AIRTIGHT AT JOINTS AND SEAMS. CHAMBERS
SHALL BE LINED WITH 2 LAYERS OF 6-MIL POLYETHYLENE WITH A
MINIMUM OVERLAP OF 12" AND DOUBLE-SEALED (AIRTIGHT) USING
TAPE OR ADHESIVE.



DETAIL C. PERSONNEL DECONTAMINATION ENCLOSURE WITH EQUIPMENT

NOT TO SCALE

AMERICAN COATINGS CORPORATION

Serving the Environmental Control Industry Since 1979

3037 N.W. 60th Street
Ft. Lauderdale, Florida 33309
(954) 970-7820
(800) 533-0151
FAX (954) 970-3690

November 5, 1997

Ms. Debbie Livingston
Aztec Environmental Incorporated
2060 N. Sherman Avenue
Panama City, FL 32406

FAX TRANSMISSION: (850)784-0430

Dear Ms. Livingston:

22-P is an acrylate emulsion which, according to the information provided to us, has been used for encapsulating surfaces with lead based paint. A list of those Housing Projects where 22-P has been applied accompanies this correspondence.

Additionally, when applied properly and allowed to fully cure, 22-P will last 20 years. Conditions over which American Coatings Corporation has no control, such as physical abuse, physical conditions and/or improper maintenance or preparation, may affect the overall performance of 22-P.

It shall remain the responsibility of the user to determine the suitability of 22-P for any particular application; moreover, the user shall assume any and all liabilities and risks which may arise due to the application of 22-P.

Sincerely,
AMERICAN COATINGS CORPORATION

Herbert Weisberg
President

HW:gcl

AMERICAN COATINGS CORPORATION

Serving the Environmental Control Industry Since 1979

2530 N. Powerline Road • #404
Pompano Beach, Florida 33069
(305) 960-0500
(800) 533-0151
FAX (305) 960-4920

3/13/95

Re: 22P - Penetrating & Lock Down Encapsulant

To Whom It May Concern:

22P is a water-based encapsulant which is used for both asbestos and lead containg materials. Additionally, 22P was one of the original products used during the testing program conducted for H.U.D. by the engineering firm known as Dewberry & Davis.

Sincerely,
AMERICAN COATINGS CORPORATION

Herbert Weisberg
President

HW:gcl

AMERICAN COATINGS CORPORATION

Serving the Environmental Control Industry Since 1979

2530 N. Powerline Road • #404
Pompano Beach, Florida 33069

(305) 960-050
(800) 533-015

22P POWERLOCK

"LOCK DOWN"

22P "POWERLOCK" is a unique emulsion which meets all industry standards for asbestos encapsulants. **POWERLOCK'S** specialized latex composition has been developed to significantly reduce labor expenses by adhering to the surface during the first application.

POWERLOCK'S easy one step application is used for "locking down" all surfaces In the work area, inlcuidng debris, following the removal of asbestos.

As a lock down encapsulant, **POWERLOCK's** full-strength formula provides the final measure of protection by sealing any treated fibers which may have remained within the abatement area. Additionally, upon curing, **POWERLOCK** forms a tough, resilient film over the substrate which is compatible with conventional replacement products.

Although the standard finish is translucent, **POWERLOCK** is available in tints when requested.

PRODUCT DATA & TEST RESULTS

Product Classification	"Lock Down Encapsultant"
Viscosity, cps	20-40
pH	4.0
Specific Gravity	1.05
Weight per Gallon, pounds	8.75
Reactivity Data	Stable
Incompatibility	Strong Oxidizers
Freezing Point	32°F
Storage	40°F - 100°F
Odor:	
Wet	Mild Latex
Dry	None
Color:	
Wet	Milky White
Dry	Translucent
(Tinting Available)	

FLAMMABILITY INFORMATION

OSHA	IIIB
DOT	Not Regulated
Flash Point (TCC)	212°F
Flame Spread Index (ASTM E84-86)	0
Smoke Developed	10
Fire Rating (ASTM E84-86)	A
(Coverage Rate for Testing 35-40 ft²/gal)	
Flame Spread Index (ASTM E162)	17
Flame Spread Classificaton (ASTM E162)	A
(Conducted on a friable matrlx a 7-12 ft²/gal)	

SMOKE GENERATION DATA

Opt. Density Flame Mode	3
Toxic Gas Release:	
CO, percent by Volume	.03
HCl, ppm	Less than 1
HCN, ppm	Less than 2
No + No2	Less than 5
(Conducted on friable matrix a >20 ft²/gal)	

EQUIPMENT SPECIFICATIONS

Electric airless spray pump
Hose size ¼" - ½" Inner Diameter
Standard point gun with .011 to .019 tip opening
Apply at low pressure to avoid rebounding

LOCK DOWN PROCEDURE

Approximate Application Rate: Up to 500 Ft²/per Gallon

APPLICATION SUGGESTIONS

Follow all Federal, State and Local regulations governing the safe handling of asbestos-containing materials.

Product should be used full-strength. Excessive dilution reduces the product's efficiency.

Trial application is recommended to determine the most effecitve coverage rate.

Wear safety non-skid footwear. Avoid hot surfaces.

Clean equipment thoroughly following each usage.

1. Make sure all visible asbestos materials have been removed per specification requirements.
2. Set airless spray equipment to lowest possible pressure still capable of spraying material.
3. Using a consistent spraying motion, apply **POWERLOCK** to all surfaces in the work area, including debris. Avoid hot surfaces.
4. One misting should be sufficient. Allow adequate drying time, dependent upon field conditions, prior to installing replacement product.

DISTRIBUTED BY

* ENCAPSULANT MATERIALS CLASSIFIED BY UNDERWRITERS LABORATORIES INC.® AS TO FIRE RESISTANCE FOR USE WITH CLASSIFIED FIRE RESISTANCE TYPES RG & RG1 CLASSIFIED FOR ZONOLITE CONSTRUCTION PRODUCTS DIV., W. R. GRACE & CO. AND AT AN APPLICATION RATE OF NOT LESS THAN 500 SQ. FT./GAL. ON BEAMS, COLUMNS, JOISTS, AND FLUTED STEEL FLOOR AND FORM UNITS. ABILITY OF THIS MATERIAL TO ACT AS A SEALANT HAS NOT BEEN INVESTIGATED SEE UL FIRE RESISTANCE DIRECTORY.

Underwriters Laboratories Inc.®

AMERICAN COATINGS CORP
MR I WEISBERG
#404
2530 N POWERLINE RD
POMPANO BEACH FL 33063

Your most recent listing is shown below. Please review this information and report any inaccuracies to the UL Engineering staff member who handled your Assignment.

CBUI June 9, 1993
Encapsulant Materials

AMERICAN COATINGS CORP , POMPANO BEACH FL 33063 R14163 (N)

Type 22P post removal encapsulant material for use with Classified Types RG and RG1 cementitious mixtures manufactured by Zonolite Construction Products Div., W. R. Grace & Co., applied at an application rate of not less than 1000 sq ft/gal and with Classified Types JN and JN-HD sprayed fibers, manufactured by MFS Inc., applied at an application rate of not less than 1300 per sq ft/gal to beams, columns, joists and floor or roof-ceiling assemblies consisting of all fluted steel floor and form units. The ability of this material to act as e sealant has not been investigated.

Type 22P POWERLOCK post removal encapsulant material for use with Classified Types RG and RG1 cementitious mixtures manufactured by Zonolite Construction Products Div., W.R. Grace & Co., applied at an application rate of not less than 500 sq ft/gal and with Classified Types JN and JN-HD sprayed fibers, manufactured by MFS Inc., applied at an application rate of not less than 650 per sq ft/gal to beams, columns, joists and floor or roof-ceiling assemblies consisting of all fluted steel floor and form units. The ability of this material to act as a sealant has not been investigated.

#404 2530 N POWERLINE RD

LOOK FOR CLASSIFICATION MARKING ON PRODUCT

Replaces R14163 dated March 31, 1993.

597516001 Underwriters Laboratories Inc.® CII/0182611
146

For information on placing an order for UL Listing Cards in a 3 x 5 inch card format, please refer to the enclosed ordering information.

UNDERWRITERS LABORATORIES INC.

333 Pfingsten Road
Northbrook, Illinois 60062-2096
(708) 272-8800
FAX No. (708) 272-8129
MCI Mail No. 254-3343
Cable ULINC NORTHBROOK, IL
Telex No. 6502543343

Underwriters Laboratories Inc.®

November 2, 1990

American Coatings Corp.
Mr. Martin J. Weisberg
8129 Austin Avenue
Morton Grove, IL 60053

Our Reference: R14163, 90NK24336

Subject: Classification of 22P Power Lock

Dear Mr. Weisberg:

We have completed our investigation to Classify the 22P power lock. We have revised Follow-Up Service Procedure R14163 and your Classification Cards to cover the new product. You will be receiving copies of the revised pages in the near future.

If you should have any additional questions, feel free to contact the writer.

Very truly yours,

Joseph A. Treadway

JOSEPH A. TREADWAY (Ext. 3325)
Engineer
Fire Protection Department

Reviewed by:

NESTOR G. SANCHEZ
Engineering Group Leader
Fire Protection Department

JAT:mb
FP(33)02

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS
REPLACES NPCA 1-82

MANUFACTURERED FOR

American Coatings Corporation
2530 N. Powerline Road/#404
Pompano Beach, FL 33069
(305)960-0500

EMERGENCY TELEPHONE

(305) 960-0500

DATE OF PREPARATION
September 4, 1992

SECTION I - PRODUCT INFORMATION

PRODUCT NUMBER: ACC 22P-POWERLOCK

PRODUCT NAME: Lock Down Encapsulant
Removal Encapsulant

PRODUCT CLASS: Copolymer Latex Coating - Water Dispersion

TRANSPORTATION INFORMATION: Shipping Class 55, Paint (No special labels required.)

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT	OCCUPATIONAL EXPOSURE LIMIT TLV	PEL	VAPOR PRES

This MSDS is developed to satisfy the requirements of the OSHA Hazard Communications Standard 29 CFR 1910.1200. The components of this mixture are not considered 'Hazardous by this OSHA Standard and are not designated carcinogenic by the National Toxicology Program (NTP) or the International Agency for Research or Cancer (IARC). Additionally, the specific chemical identities of this mixture are considered to be trade secrets by American Coatings Corporation and will be made available to health professionals only in accordance with procedures established in the previously mentioned Standard.

SECTION III - PHYSICAL DATA

BOILING RANGE: 212^0 F

EVAPORATION RATE: Slower than ether

WT/GAL: 8.75 lbs.

SOLUBILITY IN WATER: Appreciable

DECOMPOSITION TEMPERATURE: Approx. 240^0 F (115^0 C)

VAPOR DENSITY: Lighter than air

VOLATILE VOLUME: 88%-96%

SPECIFIC GRAVITY: 1.05

VISCOSITY: Approx. 20-40 centipoi

FREEZING POINT: 32^0 F (0^0 C)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA - IIIB DOT - Not Regulated FLASH POINT - No flash to boiling 212^0 F (TCC).

LEL - Not available

EXTINGUISHING MEDIA:
_X_ Foam _X_ Alcohol Foam _X_ CO2 _X_ Dry Chemical _X_ Water Fog Other

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

SPECIAL FIREFIGHTING PROCEDURE: Product will not burn until water has evaporated. For dried film or residual solids, full protective equipment is recommended, including self-contained breathing apparatus.

SECTION V - HEALTH HAZARDS

EFFECTS OF OVEREXPOSURE: A TLV for this mixture has not been established.

Eye contact may cause moderate irritation. Prolonged skin contact may cause slight irritation. Exposure to concentrated vapors may cause some individuals to experience headaches or dizziness. Ingestion of the liquid may irritate the mucous membranes and gastrointestinal tract and may cause vomiting.

If headaches or dizziness are experienced by an individual, the product handling procedures and workplace ventilation should be examined.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: No available information.

PRIMARY ROUTES OF ENTRY: Dermal, Inhalation

EMERGENCY AND FIRST AID PROCEDURE: Skin - wash with soap and water. Eyes - flush with clean water at least 15 minutes. If irritation persists, consult physician. Inhalation - remove to fresh air. If breathing is difficult, administer oxygen. If irritation persists, consult physician. Ingestion - give two glasses of water, induc vomiting, consult physician or poison control center. Never give anything by mouth t an unconscious person.

SECTION VI - REACTIVITY DATA

STABILITY: Stable **HAZARDOUS POLYMERIZATION:** Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will yield CO, CO2, AND HCl.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (Materials to Avoid):
Materials incompatible with water and strong oxidizers.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Major spills should be collected for disposal. Minor spills may be flushed to sewer if regulations permit Before drying, product may be washed away with water; after drying, remove with a paint scraper or strong solvent.

WASTE DISPOSAL METHOD: In accordance with all applicable regulations. Review hazard section of this sheet before attempting clean-up. Empty containers are non-hazardou under RCRA as industrial waste.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: In restricted ventilation areas, or applications where mists o spray may be generated, avoid inhalation of airborne particulates by using an approved respirator with organic vapor cartridge with prefilter for mist or dust.

VENTILATION: General (mechanical) room ventilation is expected to be satisfactory. Lo exhausts should be considered for coating operations.

PROTECTIVE GLOVES: Impervious gloves.

EYE PROTECTION: Goggles, faceshields, or other eyewear to protect from splash. As a general rule, contact lens should not be worn when working with chemicals.

OTHER PROTECTIVE EQUIPMENT: None.

HYGIENIC PRACTICES: Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid breathing vapors. Avoid application to hot surfaces, as vapors may be irritating. Keep container closed. Us with adequate ventilation. Store indoors at temperatures of 45^0F - 90^0F. Do not sto in contact with iron, aluminum, zinc, copper, or other alloys.

OTHER PRECAUTIONS: For industrial/professional use only. Not intended for retail sale use by individual consumers. Do not reuse container for potables or edibles.

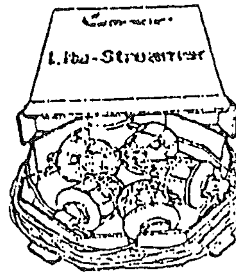
EQUIPMENT

EQUIPMENT

Temporary Outdoor Lighting Systems
Airless Spray Guns
Shower Unit
Breathing Air Systems
Type "C" Breathing Air System
CK-1 Calibration Kit
Air (HEPA) Filter
Scaffold
Powered Air-Purifying Respirator Type A
OptimAir MM Powered AirPurifying Respirator (PAPR)
SURVIVAIR Half-Mask Respirator
Faceshields and Window Brackets
Hearing Protection
Rainwear
Electronic Pressure Recorder
Neg-A-Master
Omniguard III
Sensidyne Super Sampler BDX 74 Pump
Step Ladder
Mach I Negative Pressure System
Mach II Negative Pressure System
Mini Water Filtration System
Asbestos Vacuum Cleaner (Pullman White Colt)
Vacuums (The Purple One) (Pullman White Holt)
Portable Lighting Station
Floor Machine Accesso
Minuteman Front Runner/Series Floor Machines
Sensidyne BDX 530 Heavy Duty Super Sampler Pump

Temporary Outdoor Lighting Systems

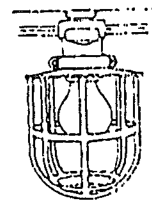
Rugged temporary outdoor lighting units designed to comply with OSHA requirements (OSHA Reference, Part 1926.402 through 1926.408).



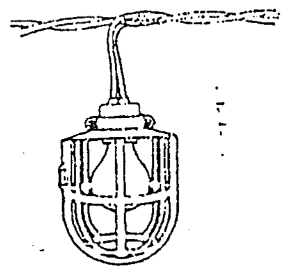
Lite Streamer
...t OSHA Specifications for outdoor use.

...conomical temporary lighting system featuring rugged, easy-open side snap ... guards. Safety yellow SPT wire and molded PVC lampholders. Our new specially ...ned Lite-Streamer box has a sturdy insert that separates the guards from the wire ... they don't tangle. The box is reusable for easy storage.

50 ft.: 5 lamps, 60 ft. messenger; 100 ft.: 10 lamps, 110 ft. messenger



Cat. No.	Wire Ga./Cond	Wire Type	Length in ft.	125V Rating	Std. Pkg.	Pkg. Wt.
07102	14/2	SPT	50	15A	1	7
07103	14/2	SPT	100	15A	1	13
07112	14/2	SPT	50	15A	1	7
07113	14/2	SPT	100	15A	1	13
With molded cap and connector						
07108	14/2	SPT	50	15A	1	7
07109	14/2	SPT	100	15A	1	13
With messenger wire						
07118	14/2	SPT	50	15A	1	7
07119	14/2	SPT	100	15A	1	13
With molded cap and connector and messenger wire						



New Economy Lite Streamer

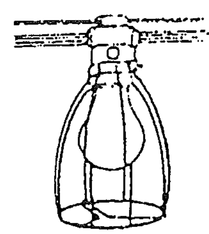
Our unique assembly method, using sonic-welded connections, provides the most sturdy, yet most economical temporary lighting system available.

07308	14/2	TW	50	15A	1	7
07309	14/2	TW	100	15A	1	13
07100	Replacement plastic guards, Yellow				25	6

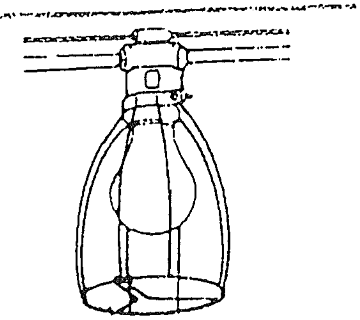
...n-O-Lite
...ts OSHA Specifications for Outdoor Use

He... -duty 12 gauge 3 conductor 600 volt cord in OSHA orange. Positively grounded, quick-open plated metal lamp guards with molded PVC lampholders. Flexible galvanized wire messenger and molded cap and connector.

50 ft.: 5 lamps, 60 ft. messenger; 100 ft.: 10 lamps, 110 ft. messenger



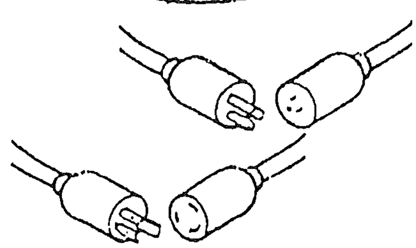
Cat. No.	Wire Ga./Cond	Wire Type	Length in ft.	125V Rating	Std. Pkg.	Pkg. Wt.
07208	12/3	SPT	50	15A	1	10
07209	12/3	SPT	100	15A	1	21
07200	Replacement metal lamp guards				24	8



Cord-O-Lite
UL Listed—Meet OSHA Specifications for Outdoor Use

This rugged quality lighting system has heavy-duty 12 gauge 3-conductor round 300 volt cable with a high strength 3/32" wire rope messenger for maximum flexibility with repeated use. Positively grounded, quick-open wire guards with molded-on PVC lampholders. Choice of standard or locking-type connectors.

50 ft.: 5 lamps, 60 ft. messenger
100 ft.: 10 lamps, 110 ft. messenger



Cat. No.	Wire Ga./Cond	Wire Type	Length in ft	125V Rating	Std. Pkg.	Pkg. Wt.
07518	12/3	SJTW-A	50	15A	1	12
...519	12/3	SJTW-A	100	15A	1	24
...king type plug and connector available by special order.						
07528	12/3	SJTW-A	50	20A	1	12
07...	12/3	SJTW-A	100	20A	1	24

904 817-3150

INSTRUCTIONS–PARTS LIST

GRACO

307–046
Rev L
Supersedes K

This manual contains IMPORTANT WARNINGS AND INSTRUCTIONS
READ AND RETAIN FOR REFERENCE

STAINLESS STEEL

AIRLESS SPRAY GUNS

5000 psi (350 bar) MAXIMUM WORKING PRESSURE

Model 208–327, Series H*
for light viscosity paints
0.037 in. (0.94 mm) orifice, two finger trigger
With Non–Reversing DripLess™ Tip Guard

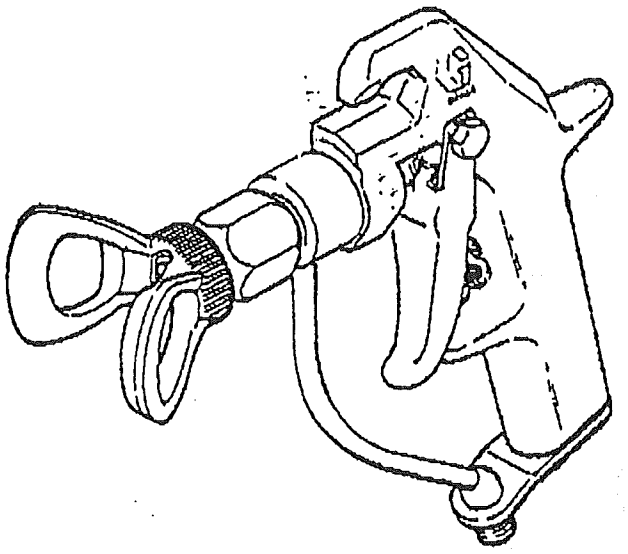
Model 208–663, Series H*
for heavy viscosity paints
0.090 in. (2.3 mm) orifice, two finger trigger
With Non–Reversing DripLess™ Tip Guard

Model 208–664, Series H*
for heavy viscosity paints
0.090 in. (2.3 mm) orifice, four finger trigger
With Non–Reversing DripLess™ Tip Guard

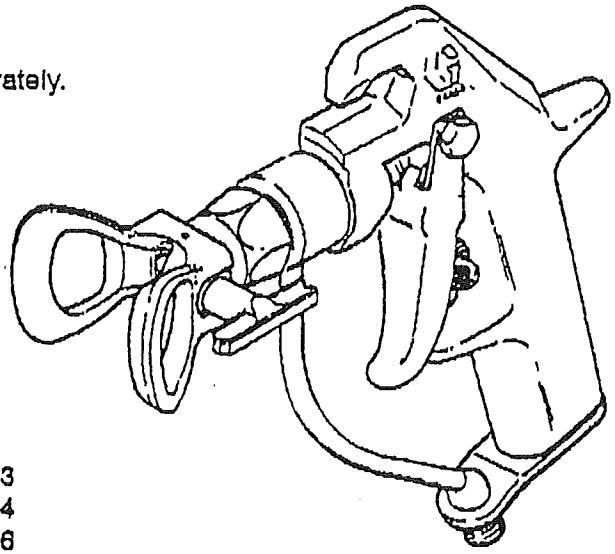
Model 220–954, Series A
for heavy viscosity paints
0.090 in. (2.3 mm) orifice, two finger trigger
With Reverse–A–Clean™ IV DripLess™ Tip Guard
and 517 size SwitchTip™

Model 224–020, Series A
for zinc paints
0.090 in. (2.3 mm) orifice, two finger trigger
With Heavy Duty Reverse–A–Clean™ DripLess™ Tip Guard
and GHD–617 size Tip Cylinder

* Spray tip not included. Must be ordered separately.



MODEL 208–663 SHOWN



MODEL 220–954 SHOWN

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Graco Toll–Free Phone Numbers ... Back Cover

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440–1441

ABATEMENT TECHNOLOGIES

Phone (404) 925-2761
Fax 1 (404) 381-7454

3305 Breckinridge Boulevard • Suite 118
Duluth, Georgia 30136

SS00T TELESCOPING SHOWER UNIT ASSEMBLY AND OPERATING INSTRUCTIONS

BEFORE STARTING

PLEASE NOTE. ; THE EXTENOING OR COLLAPSING OF THE SHOWER UNIT SHOULO BE OONE BY TWO PERSONS.

1) EXTEND SHOWER BY LIFTING UNIT FROM BOTH SIOES
CAUTION "OO NOT RELEASE UNTIL THE RETRACTABLE LOCK PINS HAVE LOCKEO IN PLACE."

2) CHECK THAT THE 100 MICRON FILTER BAG IS IN PLACE IN THE SHOWER ORAIN ANO COVEREO BY THE ORAIN PLATE.

3) INSTALL SHOWER CURTAINS ON HOOKS.CURTAINS WHEN PROPERLY INSTALLEO SHOULO HANG ON THE "INSIOE" OF THE ENTRY ANO EXIT OPENINGS TO PREVENT SPLASH OUTSIOE THE SHOWER ENCLOSURE.

4) CONNECT THE HOT ANO COLO WATER SOURCES

IF USING THE BUILOING WATER SOURCE: CONNECT TO THE SHOWER TAP CONNECTIONS,ON THE EXTERIOR OF THE FRONT WALL,WITH STANOARO HOSE FITTINGS AND CONNECTORS.

CONNECT THE ORAIN

CONNECT A HOSE FROM ONE OF THE ORAIN CONNECTORS ON THE EXTERIOR LOWER CORNER OF THE SHOWER ANO ROUTE IT TO A BUILOING ORAIN. NOTE THAT THE OTHER ORAIN CONNECTOR MUST REMAIN CAPPEO.

* IF USING THE SS200 FILTRATION UNIT:

ALL HOOK UP HOSES ANO WATER LEVEL SENSORS ARE SUPPLIEO WITH THE SS200 PUMP UNIT.PLEASE REFER TO THE SS200 INSTRUCTION SHEET TO INSURE PROPER HOOKUP ANO PUMP/SHOWER OPERATION.

PLEASE NOTE : THE EXTENOING OR COLLAPSING OF THE SHOWER UNIT SHOULO BE OONE BY TWO PERSONS.

5) COLLAPSE SHOWER BY SUPPORTING THE UNIT FROM BOTH SIOES.

CAUTION "RELEASE THE PINS WHICH RETAIN THE MIO SECTION FIRST. OO NOT RELEASE THE PINS WHICH RETAIN THE TOP SECTION UNTIL THE MIO SECTION HAS SLIO INTO THE BASE UNIT."

WHEN THE PINS WHICH RETAIN THE MIO SECTION HAVE BEEN RELEASEO THE MIO SECTION WILL SLIOE INTO THE BASE UNIT.
RELEASE THE PINS WHICH RETAIN THE TOP SECTION.THE TOP SECTION WILL NOW SLIOE INTO THE BASE UNIT READY FOR TRANSPORT.

ABATEMENT TECHNOLOGIES

MODEL S5000T TELESCOPING SHOWER

FIGURE 3

WATER SUPPLY HOOK-UP

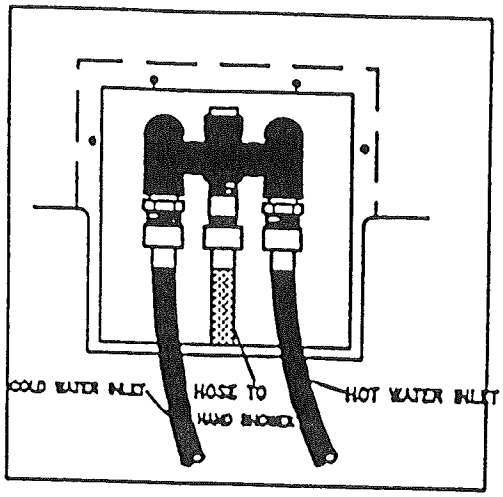


FIGURE 4

SHOWER DRAIN HOOK-UP

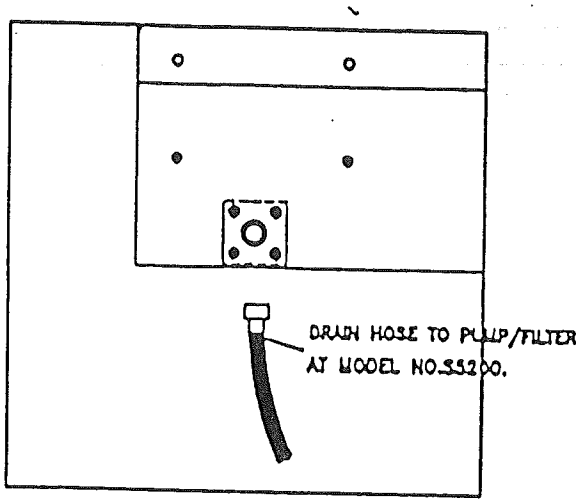
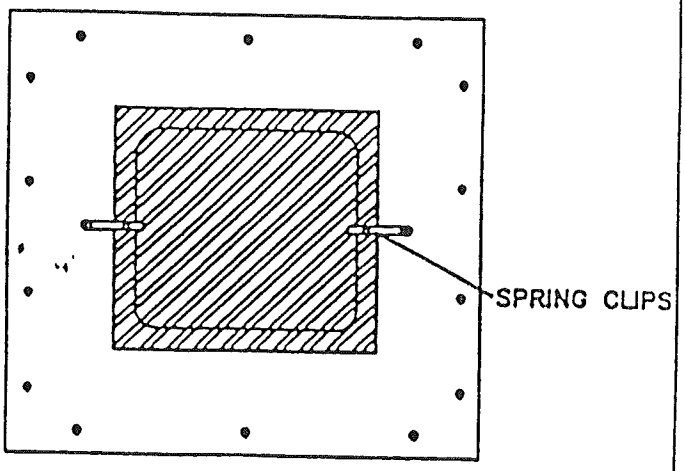


FIGURE 5

TOP ACRYLIC WINDOW



ABATEMENT TECHNOLOGIES

MODEL S5000T TELESCOPING SHOWER

FIGURE 1

TELESCOPING SHOWER SET-UP

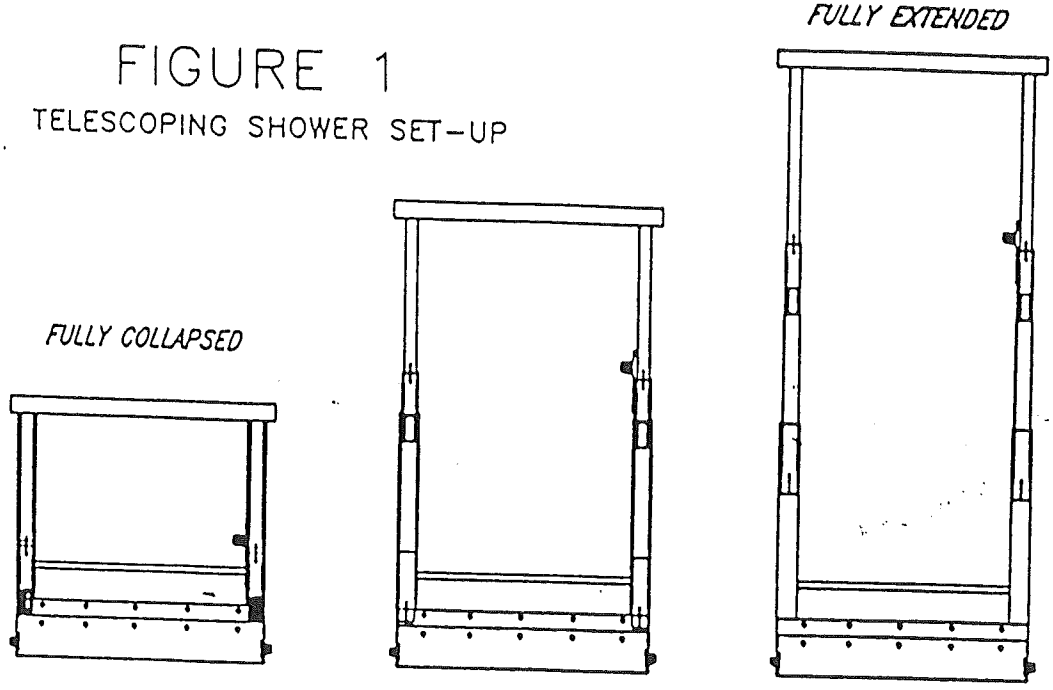
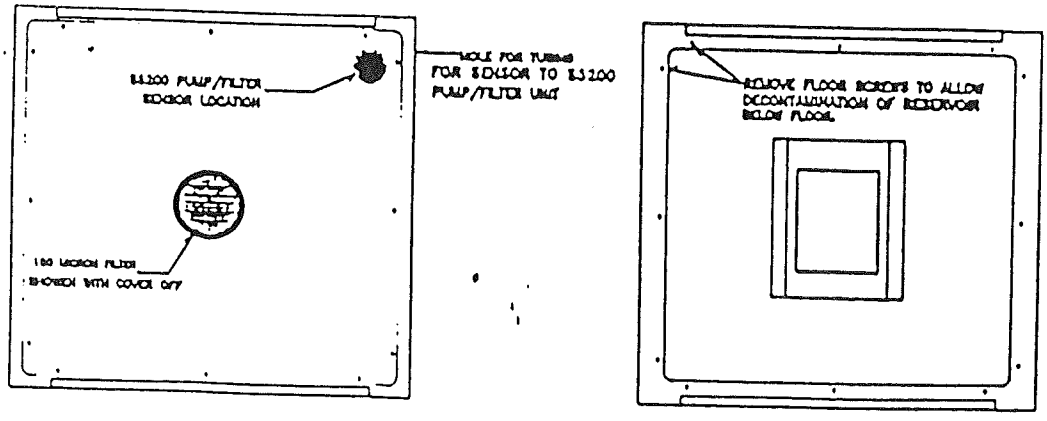
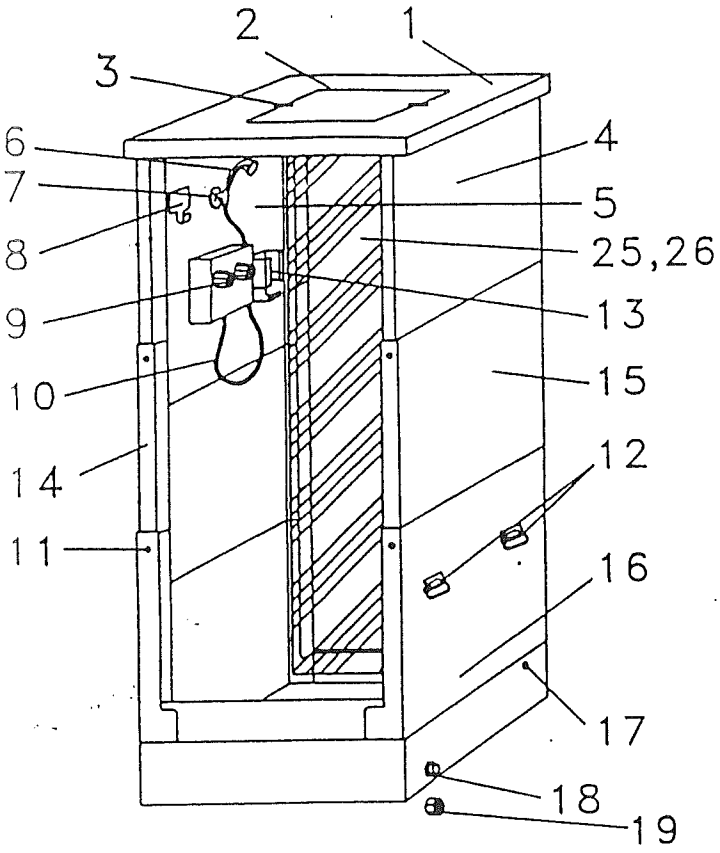


FIGURE 2

SHOWER FLOOR IN PLACE AND REMOVED

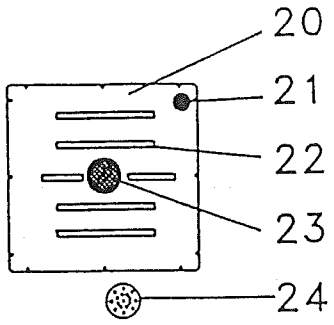




ABATEMENT TECHNOLOGIES

MODEL S5000T TELESHOWER
PARTS LISTING

JAN 90 FILE "TS-PARTS"

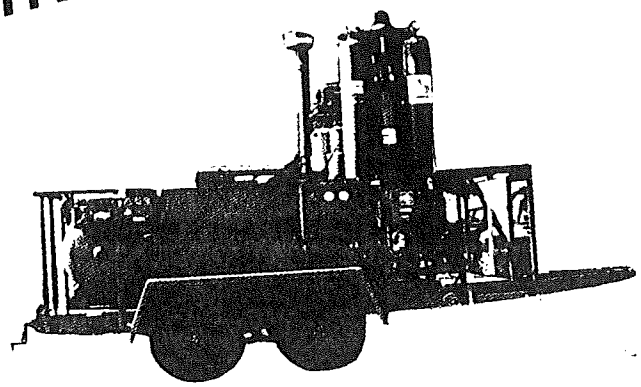


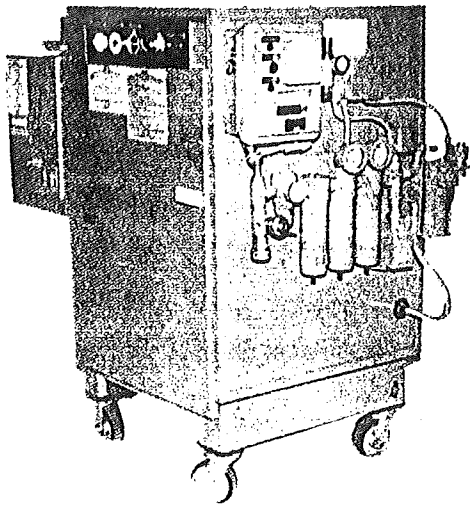
REPLACEMENT PARTS LISTING
S5000T TELESHOWER

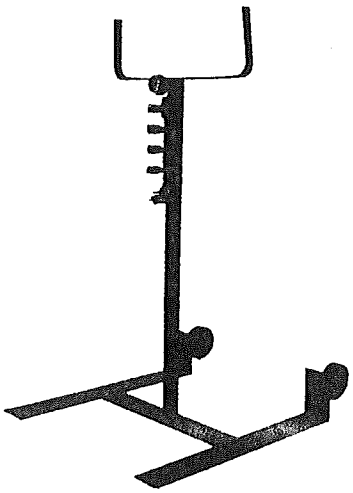
DWG TS-PARTS
FILE PARTS-TS

REF #	QTY	DESCRIPTION	PART #
1	1	SHOWER LID (TELESHOWER)	.....
2	1	ACRYLIC WINDOW (16 X 16)	..S5169...
3	2	SNAPS (VALCO #141)	.....
4	1	UPPER SIDE PANEL	..S5105...
5	1	UPPER SIDE PANEL & TAP BOX	..S5106...
6	1	SHOWER HEAD	.....
7	1	SHOWER HEAD BRACKET	.....
8	1	CLOTHING HOOK	.....
9	1	TAP ASSEMBLY (COMPLETE)	..S5156...
10	1	SHOWER HEAD HOSE	..S5158...
11	8	SPRING LATCHES (SPECIAL)	.....
12	4	HANDLES	.....
13	1	LIQUID SOAP HOLDER	.....
14	1	MIDDLE SIDE PANEL (WITH CUTOUT)	.....
15	1	MIDDLE SIDE PANEL (NO CUTOUT)	.....
16	1	BASE/LOWER SIDES (COMPLETE)	.....
17	1	UNIVERSAL PLASTIC BUSHING	.....
18	2	HOSE FITTING	.....
19	2	CAP FOR HOSE FITTING	.....
20	1	SHOWER FLOOR	..S5104...
21	1	SENSOR HOLE CAP	.....
22	1	NO SLIP SAFETY STRIP KIT	.....
23	1	100 MICRON FILTER BAG	..S5110B..
24	1	DRAIN COVER	..S5150...
25	2	SHOWER CURTAIN	..S5171...
26	10	CURTAIN HOOKS	..S5170...

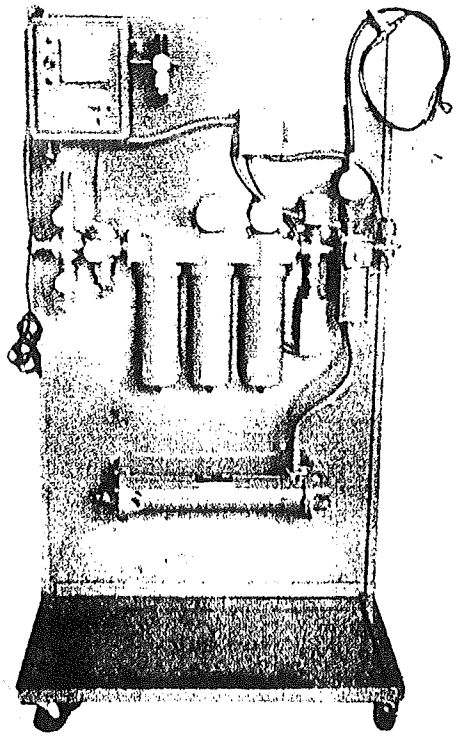
ADVANCED BREATHING AIR SYSTEMS

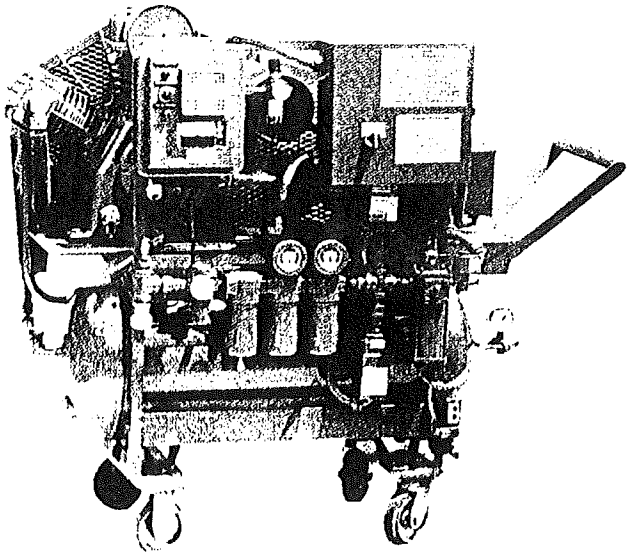






Satisfying Breathing Air Systems Requirements From Our Standard Product Line Or Custom Fabricated Systems For Specific Applications.

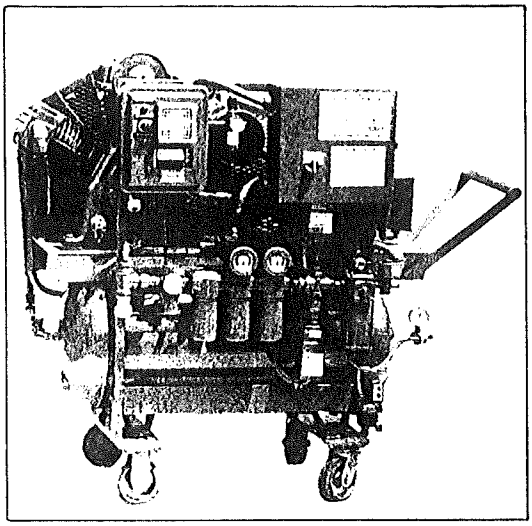




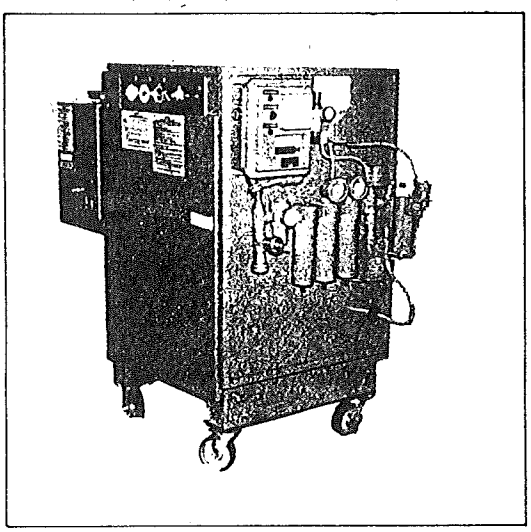
Advanced Compressor Products, Inc. • P.O. Box 23206 • Jacksonville, FL 32241-3206 • 904/733-9031 FAX: 904/733-09

BAP "TYPE C" SYSTEMS

Packaged Portable Breathing Air Systems



Models BAP - 20 & 40
(Capacity 20 & 40 CFM)



Models BAP - 60 & 100
(Capacity 60 & 100 CFM)

All of the completely packaged "Type C" portable breathing air systems include air compressor, aftercooler, auto drains, three - stage filtration system with element change indicators, air pressure regulator with gauge, carbon monoxide high air temperature and low air pressure continuous monitoring with visual and audible alarms, Grade "D" reserve air switching valve, distribution manifold, 6' electrical extension cord and a NEMA 1 electrical control panel.

The "Type C" systems provide a continuous cool, clean supply of Grade "D" breathing air for all pressure demand SAR's, constant flow respirators and air fed suits.

The completely portable compact "Type C" systems have been designed to fit thru standard door openings and caster wheels fit standard rental truck ramps for transportation.

Models and Specifications

MODEL	CFM @ 100 PSI	Motor H.P.	Standard Voltage	L	W	H	Weight LBS.
BAP - 20	20	5	1/60/208-230V (40 AMP) 3/60/208-230, **(20 AMP)	56"	34"	48"	525
BAP - 40	40	10	1/60/230V *(Opt'l. 208V) (60 AMP) 3/60/208-230, **(40 AMP)	56"	34"	48"	650
BAP - 60	60	15	3/60/208-230, **(60 AMP)	51"	29"	46"	750
BAP - 100	100	25	3/60/208-230, **(100 AMP)	55"	29"	63"	950

*Optional 1/60/208V Operation Requires Buck-Boost Transformer.
**Can Be Rewired For 460V Operation - Consult Factory For Proper Instructions.

Subject To Technical Modification Without Notice.

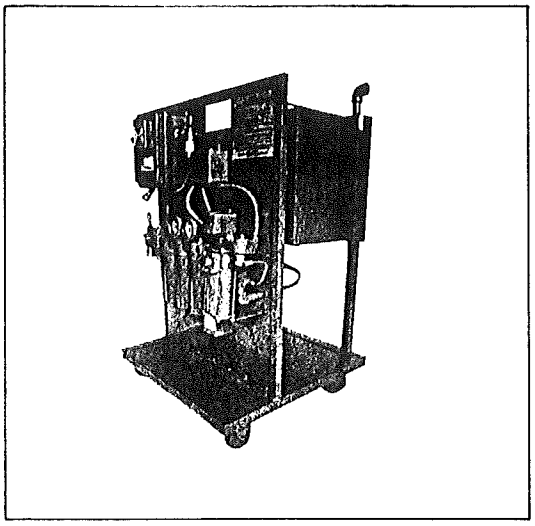
Dual Control for High or Low air uaage operation standard.

WHEN ORDERING: Please specify Model and Voltage requirements.

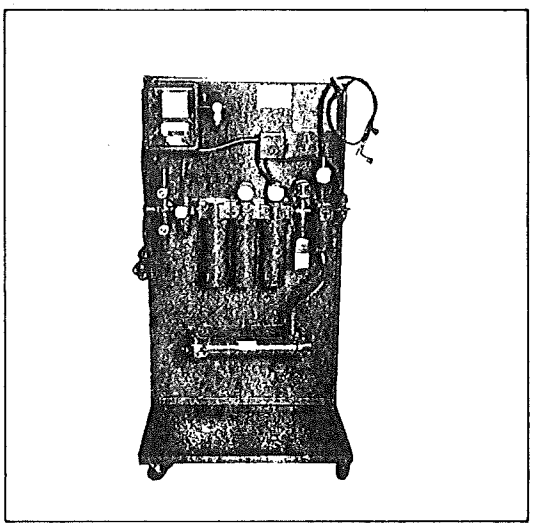
Advanced Compressor Products, Inc. • P.O. Box 23206 • Jacksonville, FL 32241-3206 • 904/733-9031 FAX: 904/733-0944

BAF SYSTEMS

Portable and Stationary Panel-Mounted Breathing Air Systems



Models BAF - 20 & 40
(Capacity 20 & 40 CFM)



Models BAF - 60 & 100
(Capacity 60 & 100 CFM)

Compressed air contains many harmful contaminants. Condensed water, oil, and dirt are removed by the BAF Three - Stage Filtration System. The compressed air pressure, temperature, and carbon monoxide content are continuously monitored. Audible alarm with light indicates specific alarm condition and High Pressure grade "D" reserve air is automatically switched on to assure respirator safety.

The BAF Breathing Air Filtration and Air Quality Monitoring System can be used with any air compressor of suitable capacity and pressure, and will provide a cool, clean supply of Grade "D" breathing air for all pressure demand SAR's constant flow respirators and air fed suits.

The cool, clean, Grade "D" breathable air from the BAF Breathable Air Filtration and Air Quality Monitoring System results in worker comfort and increased productivity.

Models and Specifications

MODEL	CFM @ 100 PSI	Inlet Connection	L	W	H	Weight	Wall Mount Deduct
BAF - 20	20	3/8" NPT	30"	30"	48"	100 lbs.	-25 lbs.
BAF - 40	40	1/2" NPT	30"	30"	48"	125 lbs.	-25 lbs.
BAF - 60	60	3/4" NPT	36"	36"	60"	150 lbs.	-35 lbs.
BAF - 100	100	3/4" NPT	36"	36"	60"	175 lbs.	-35 lbs.

All systems standard 1/60/115V operation.
12V battery operation only optional.

Subject To Technical Modification Without Notice.

Advanced Compressor Products, Inc. • P.O. Box 23206 • Jacksonville, FL 32241-3206 • 904/733-9031 FAX: 904/733-0944

BAC SYSTEMS

Portable Air Compressors

These portable air compressors are designed for use with a BAF Panel-Mounted portable breathing air filtration and air quality monitoring systems. The air compressor user assumes complete responsibility and liability for the air quality if used for respiratory service without an approved breathing air filtration and air quality monitoring system.

Models and Specifications

MODEL	CFM @ 100 PSI	Motor H.P.	Standard Voltage	L	W	H	Weight LBS.
BAC - 20	20	5	1/60/208-230V (40 AMP) 3/60/208-230, 460V (20 AMP)	56''	34''	48''	445
BAC - 40	40	10	1/60/230V *(Opt'l. 208V) (60 AMP) 3/60/208-230, **(40 AMP)	56''	34''	48''	590
BAC - 60	60	15	3/60/208-230, *(60 AMP)	46''	29''	46''	680
BAC - 100	100	25	3/60/208-230, **(100 AMP)	49''	29''	63''	850

*Optional 1/60/208V Operation Requires Buck-Boost Transformer.
**Can Be Rewired For 460V Operation - Consult Factory For Proper Instructions.

Subject To Technical Modification Without Notice.

WHEN ORDERING: Please specify Model and Voltage requirements.

SYSTEM ACCESSORIES AND REPLACEMENT PARTS

- High pressure reserve air manifold with high pressure regulator
- High pressure regulators
- Replacement filter element kits for BA 20, 40, 60 & 100
- Replacement high and low pressure air gauges
- CO-monitor calibration kit, CO-calibration gas cannister
- Quick disconnect fittings for all standards
- Remote manifold assemblys for 4, 8 or 12 respirator connection
- Manifold connection block assembly for 4, 8 or 12''
- Breathing air hose 1/4'', 3/8'', or 3/4'' in 50' or 100' lengths with fitting
- 3/4'' hose splitter
- Compressor lubricant (mineral base - no CO-producing capability)
- Compressor intake filter elements
- Loss of power alarm
- 12V battery operation for BAF Systems
- Extension cord 25' with receptacle single or three phase

Distributed By:

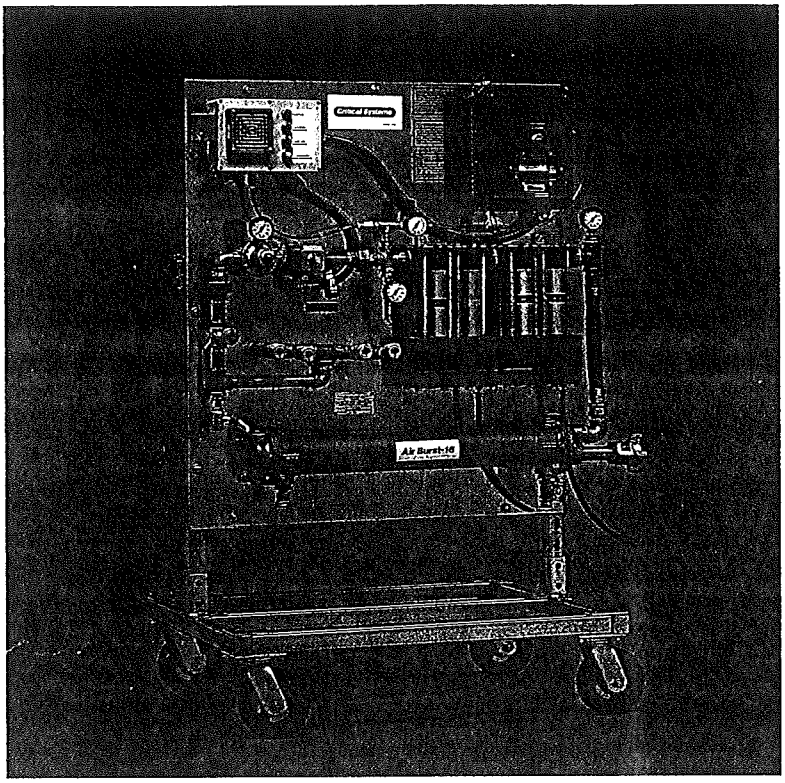
PROFESSIONAL SAFETY SUPPLIES, INC.
P. O. Box 55027, Jacksonville, Fla. 32216
Telephone (904) 731-4126

All Advanced Breathing Air Systems and Accessories meet and exceed EPA-560-OPTS-0(CGA Bulletin G 7.1 (ANSI Z 86.1) and OSHA Grade ''D'' breathing air system requirements.

Critical Systems

Houston, Texas

A DIVISION OF CRITICAL INDUSTRIES INC



AIR BURST 16

Type "C" Breathing Air System

In combination with a Breathing Air Compressor, the AB-16 will provide a continuous supply of "Grade D" breathing air.

FEATURES :

*Balanced 16 or 20 Man Air Delivery
Up To 300 Feet
*Water Cooled Aftercooler
*High Pressure Manifold for Connecting
Three Reserve Air Bottles and Jumper Hose
*Automatic Switching to Reserve Air Supply
*Heavy Duty Cart with 6" Casters
*Four Stage Filtration :

1st stage :	Water / Particulate - Extraction
2nd stage :	Hydrocarbon / Particulate - Extraction
3rd stage :	Odor - Extraction
4th stage :	Odor / Particulate -Extraction

FOUR SAFETY ALARMS :

1. Carbon Monoxide Monitor
2. Low Pressure or Compressor Failure
3. Power Failure
4. Monitor Malfunction

SPECIFICATIONS :

***Dimensions** : 30" D x 58" H x 44" W
***Weight** : 240 lbs.
***Water Connections :** Garden Hose Thread
***Air Connections :** 4 Lug Crowfoot
***Power :** 110 Volts / 60 Hz
***Maximum Rated Capacity :** 120 CFM @ 125 PSI
***Monitor** : Solid State Catalytic Sensor

Critical Systems™
A Division of Critical Industries, Inc.

AIR BURST 16

The Air Burst-16 "Type C" Breathing Air System is designed to deliver safe, clean, cool, Grade D breathing air to as many as sixteen workers. The exclusive manifold distribution system enables you to balance air delivery within close range of the panel or as far away as 300 feet simultaneously.

SPECIFICATIONS:

Overall Dimensions:	57" H x 44" W x 30" D
Weight:	225 lbs.
Water Connections:	Garden Hose
Air Connections:	4 Lug Crowfoot
Input Power:	110 volt/60Hz
Rated Capacity:	120 cfm @ 100 psi
Monitor:	Solid State Catalytic Sensor

FEATURES:

Balanced 16 or 20 man distribution system
Four Stage Filtration:
- 1st stage: Water/particulate extraction
- 2nd stage: Hydrocarbon/particulate extraction
- 3rd stage: odor - charcoal
- 4th stage: Odor/particulate extraction

Water cooled aftercooler to maintain comfortable breathing air temperature

Four Safety Alarms:
1. A CO monitor which activates a visual/audible alarm if 20 ppm of carbon monoxide is detected.
2. A 92 decibel alarm sounds if low pressure or compressor failure occur, activating a reserve air escape system.
3. A power failure alarm sounds if power supply to the panel fails.
4. A monitor malfunction warning light.

5815 Gulf Freeway • Houston, Texas 77023 • Phone: (713) 921-4888 • Fax: (713) 921-7924

March 14, 1990

AIR BURST 16
SPARE PARTS

ITEM #	QTY	DESCRIPTION	LIST PRICE
400103	1	3/4 SOLENOID VALVE	198.18
400204	1	3/4 REGULATOR	60.90
400201	1	1/4 REGULATOR	13.76
420256	1	0-15 PSI PRESSURE GAUGE BM	9.82
420251	2	0-160 PSI PRESSURE GAUGE BM	9.82
420252	1	0-160 PSI PRESSURE GAUGE LM	7.12
720003	1	HEAT EXCHANGER	453.63
620165	2	1/8 PETCOCK	1.78
400040	1	1/4 RELIEF VALVE	7.61
400020	1	1/4 BALL VALVE	6.47
620111	1	3/8 MNPT X 3/8 CPL FOSTER	12.59
400001	1	1/2 GATE VALVE	3.43
620210	1	1/2 MNPT X MGHT	2.14
620209	1	1/2 MNPT X SFGHT	4.18
400022	1	3/4 BALL VALVE	6.84
620101	1	3/4 MNPT X 1/2 CPL FOSTER	19.08
420002	1	CO MONITOR ABL-50 W/O HORN	1224.49
320060	4	6 SWIVEL CASTER	13.84
650200	1	ALARM BOX ASSEMBLY	463.20
440302	1	FEDERAL HORN 110V	80.20
440304	1	POWER FAILURE ALARM 110V	18.35
440071	1	PRESSURE SWITCH	57.41
440100	4	PILOT LIGHT HOLDER	7.22
440102	1	RED LENS	3.51
440103	1	GREEN LENS	4.33
440104	1	AMBER LENS	3.51
440105	1	WHITE LENS	3.35
440101	4	BULB 110V	2.02
480001	2	OMRON RELAY	6.84
A10104	1	3/8 X 6' JUMPER HOSE	23.47
A10105	1	2 LUG X 4 LUG ADT	23.63
A10509	1	HIGH PRESSURE REGULATOR W/PLUG	130.41
A10511	1	HIGH PRESSURE MANIFOLD 3 BOTTLE	113.53

Critical Systems ™
A Division of Critical Industries, Inc.

March 14, 1990

To Whom It May Concern:

The Critical Systems Air Burst 16 has a rated capacity of 120 cfm. According to 30 CFR 11.124-7 the air supply hose must permit a flow of 6 cfm to a loose fitting and 4 cfm to a tight fitting respirator.

A tight fitting pressure demand type respirator with a consumption of 4 cfm may be used in quantities up to 20 on a Critical Systems Air Burst-16. Total air consumption would be 80 cfm (assuming no line loss) which is within the rated capacity of the Air Burst 16.

Ken Kondo, Vice President
Critical Engineering

5815 Gulf Freeway • Houston, Texas 77023 • Phone: (713) 921-4888 • Fax: (713) 921-7924

Critical Systems

The critical difference.

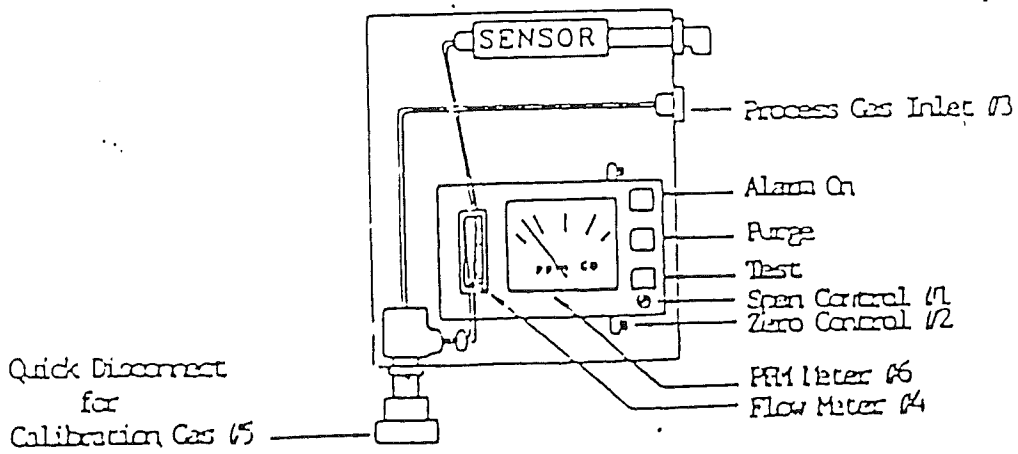
INSTRUCTION FOR: USE OF CK-1 CALIBRATION KIT

This kit is designed for use with the ABL-50 CO Monitor. each kit contains:

.6 cubic feet 10 ppm CO gas
Bottle attachment
Screwdriver
Carrying case
Instructions

1) Turn off regulator (not shown). Flow meter #4 will read 0.
2) Wet the sponge in the test connector and shake out excess water.
3) Screw test gas (10 ppm) onto calibration connector and push into quick disconnect for calibration gas. #5. Turn test gas on very slowly until flow meter #4 reads between .5 - .8.
4) After 1.5 - 2 minutes if meter #6 is not reading 10 ppm (+ 3 ppm), proceed to step 5. If meter #6 does read 10 ppm (+ 3 ppm), the monitor is calibrated. Proceed to step 7.
5) Turn span control #1 full counter clockwise. Turn zero control #2 full clockwise.
6) After 1.5 - 2 minutes, turn span control #1 until meter #6 reads 35 ppm. Turn zero control #2 back until meter #6 reads 10 ppm.
7) Turn test gas off and remove from quick disconnect. Turn regulator (not shown) on until flow meter #4 reads between .5 - .8.
8) Recheck after 30 minutes and adjust only span control #1 as needed.

CAUTION: Valve must be in the closed position when attaching adapter to test gas bottle.



Manufacturers of Asbestos Abatement Equipment
5815 Gulf Freeway • Houston, Tx. 77023 • 713-921-4888

The ABI-50 is housed in a polyester fiberglas NEMA-4 case. All of the electronic controls and indicators are mounted behind a window in the hinged door to provide protection to the circuitry. A cover latch permits quick access to the interior for calibration or adjustment. This latch may be secured with a small padlock.
There are three switches and one lamp that allow operator control of the ABI-50 functions.

Alarm On (White)

The Alarm On switch, when depressed, permits the alarm relay to be energized. The amber jewel alarm light on the cover operates whether the Alarm On switch is activated or not.

Purge (Yellow)

The momentary Purge switch initiates the purge cycle when depressed. During the purge cycle, the sensor temperature is elevated to above normal operating temperature to clean and condition the catalytic surface of the sensor to ready it for normal operation. The unit automatically goes into a purge cycle when power is applied to the unit, or when power is restored after an interruption of more than two minutes.

NOTE: As long as the purge lamp remains "on", the CO monitor alarm will not warn for high levels of CO.

Test (Blue)

The momentary Test switch connects a parallel resistance across the sensor to simulate a gas load. It is used to check circuit and alarm function.

Alarm (Amber)

The amber jewel Alarm light on the cover comes on whenever the instrument reading exceeds the alarm threshold. It operates regardless of whether the Alarm switch is in or out. The bulb may be replaced from the front of the case by unscrewing the amber jewel.

1. DO NOT PURGE UNIT !! If purged, wait at least two hours before calibrating unit.
2. Open flow meter valve to maximum reading.
3. Turn off air supply by setting regulator to 0 psi.
4. Moisten sponge in test gas connector. Shake out excess water. Screw test gas connector to gas cylinder tightly, making sure test gas valve is closed.
5. Open test gas valve slightly and adjust test gas valve until flowmeter reads 0.5 ft³/hr.
6. Wait until meter reaches maximum reading. (It requires at least three minutes.)
7. Set meter with calibration control to read same value as test gas concentration.
8. Remove test gas. Set regulator to 7 psi. Then set flowmeter valve to 0.5 ft³/hr. (Remove test connector from gas cylinder.)
9. Best performance is achieved when unit is left on with air flowing through it.

See the ASI-50 manual for complete instructions on operating the ASI-50 CO Monitor.

WARNING

This equipment should be operated on a grounded, three-pronged circuit. Failure to do so could result in electrical shock.

The *AB-16* control panel is housed in a NEMA 4 ABS enclosure and contains circuitry for the indicating lamps, warning horn, remote control panel, and pressure sensing devices.

Indicating Lamps (4)

a. GREEN - Normal condition

This lamp is on when all systems are normal. The lamp will go out if the system goes into "alarm".

b. AMBER- High CO

This lamp indicates a concentration of carbon monoxide greater than 20 ppm(alarm threshold) in the air stream. The warning horn will sound in conjunction with the lamp.

c. RED - Low pressure

This lamp indicates an air pressure of 40 psi or less. The system will automatically switch to reserve air supply until the system pressure recovers to greater than 40 psi.

d. WHITE- System malfunction

This lamp indicates when the CO monitor read out circuit is out of the normal operating range. This condition could be caused by a sensor open circuit, heater failure, or amplifier failure.

Alarm Horn

The *AB-16* control panel has one audible alarm (horn) which has a sound pressure level of 93 db. This alarm will sound if there is low pressure indicated by the red pressure lamp or a high CO reading indicated by the amber CO monitor lamp.

Power Failure Alarm

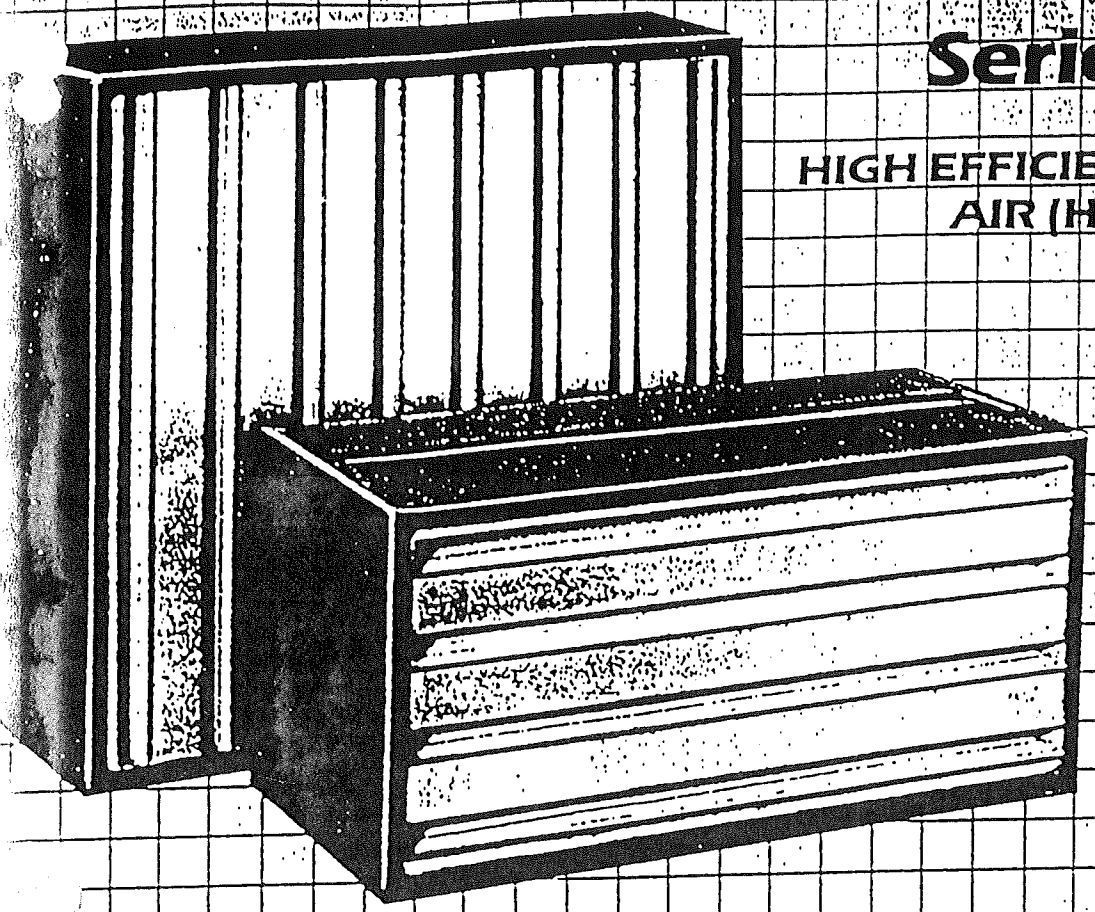
The power failure alarm will indicate and sound alarm when electrical power to the panel is disconnected. The reset button will stop the alarm for approximately 7 seconds and then sound alarm again. Remove battery (included) when panel is out of service for extended periods of time.

Remote Control Connection

The remote control panel connection is used to attach the remote control unit to the *AB-16*. Remote control unit, cord, and female adapter are available from your *Cozad Systems* distributor.

FILTRA 2000
Series Filter

HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTER



Innovation In Air Filtration

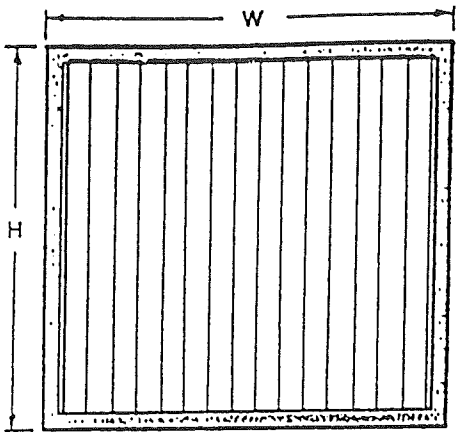
TRI-DIM
FILTER CORPORATION

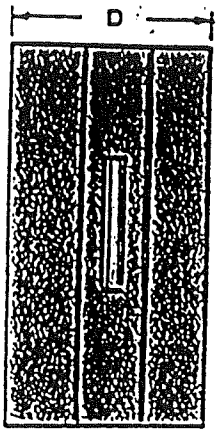
104 Wagaraw Road, P.O. Box 14, Hawthorne, New Jersey 07507
Phone (201) 423-0045

ILTRA 2000 Specifications...

es:	24 × 24 × 11½, 24 × 12 × 11½ actual.
iciency:	99.97% DOP on 0.3 Microns
...	2000 CFM @ 1.0" W.G. (24 × 24 × 11½) 1000 CFM @ 1.0" W.G. (12 × 24 × 11½)
dia:	Fire retardant, waterproof microglass fiber paper
al:	PVC or Silicon Sealant
sket:	One piece Neoprene Foam or Silicon
np. Limit:	PVC — 110°C (continuous) Silicon — 200°C (continuous)
er Surface:	452 Square feet
l sides:	Galvanized or Stainless Steel
ight:	55 pounds
ndle:	Retractable handle — one side

TE: *Other sizes, efficiencies and sealing adhesives available. Contact factory for special materials and requirements.*





Size	Press. Drop	Capacity
24×24×11½	1.0"	2000 CFM
610mm×610mm×292mm	25mm	3400 M3/h
24×12×11½	1.0"	1000 CFM
610mm×305mm×292mm	25mm	1700 M3/h

**Dimensions and Specifications in Metric Units.*

ggested Product Specifications...

ers shall be Filtra Model 2000 Series HEPA filters by TRI-DIM Filter rporation, Hawthorne, N.J. They shall be individually tested and have an efficiency of not less than 99.97% when tested with dioctylphthalate smoke. The initial pressure drop will be 1.0" er column gage when operating at rated capacity of 2000 CFM.

er medium shall be fire retardant, waterproof glass paper folded in ets with patented string separators to ensure constant spacing of the s. Folds are sealed in the frame by means of a mineral seal, PVC or on. The frame shall be galvanized or stainless steel. Gaskets shall be round ⅝" neoprene foam or silicon molded in one piece.

exact dimensions shall be 24" high by 24" wide by 11½" deep. erall dimensions shall be within ± 1/16" and squareness shall be within A half size filter 12" by 24" by 11½" deep with an air flow of 1000 M is also available.

Innovation In Air Filtration

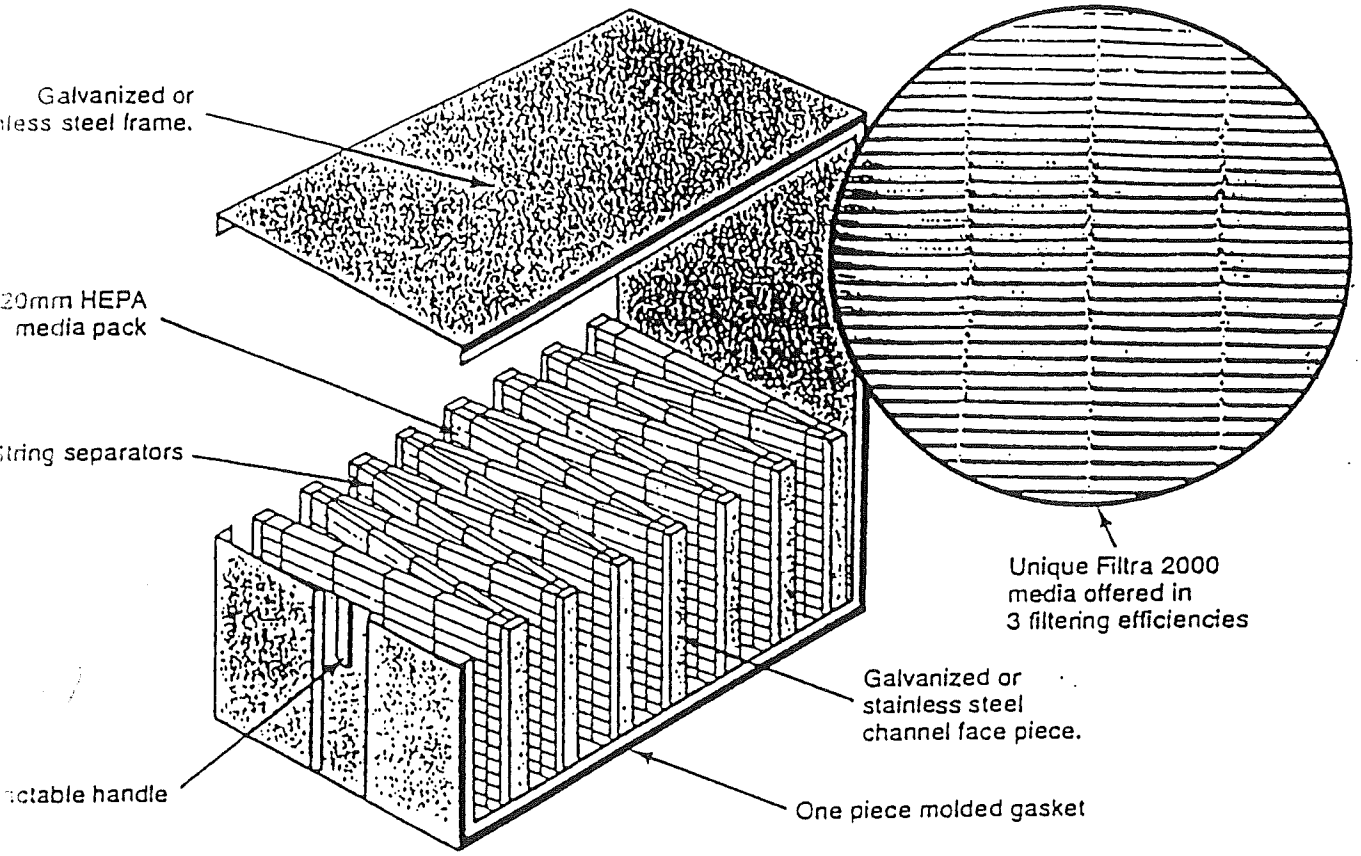
TRI-DIM
FILTER CORPORATION
104 Wagaraw Road, P.O. Box 14
Hawthorne, New Jersey 07507
Phone (201) 423-0045

OTHER FACILITIES:

- Philadelphia, PA
- Baltimore, MD
- Chicago, IL
- Los Angeles, CA
- Clearwater, FL
- Miami, FL
- Mineral, VA
- Minneapolis, MN

Distributed By:

The drawing below shows the patented Mini-Pleat design. Instead of aluminum or kraft paper separators, the Filtra 2000 uses a High Capacity 20mm pleat with string separators at 3/4" intervals. Our design gives you twice as much media, hence twice the air flow (CFM) and twice the velocity of (FPM) ordinary HEPA filters. By using the Filtra 2000 at 2000 (CFM) and 500 (FPM) per 24" x 24" filter, the user can eliminate half the holding frames, cells, and plenum space required by standard type @ 250 (FPM), 1000 (CFM) HEPA filters. Installation costs for labor and material are significantly reduced. Most of the custom sheet metal work may be eliminated entirely.



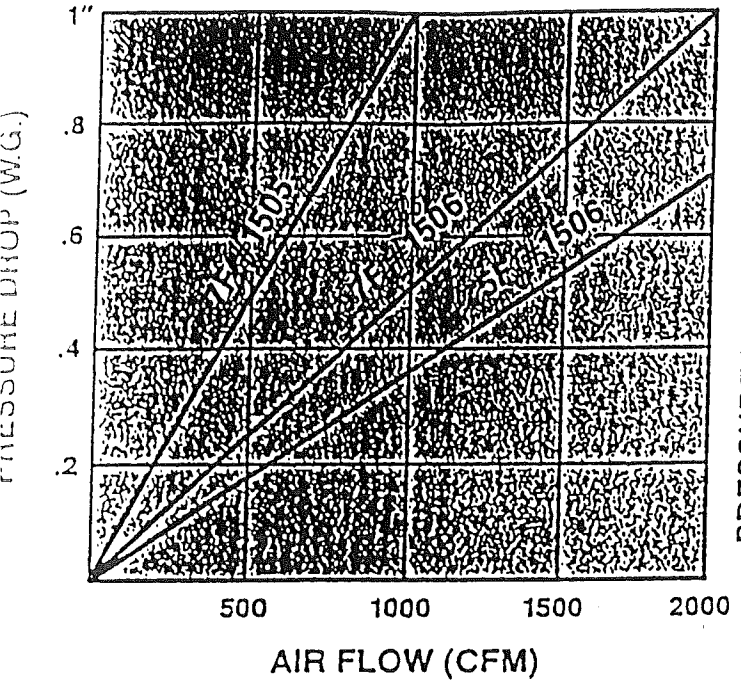
FRAME — Filtra 2000 is available in galvanized or stainless steel. The channel frame is the strongest available for Hepa filter cells. One retractable handle is provided for ease of installation.

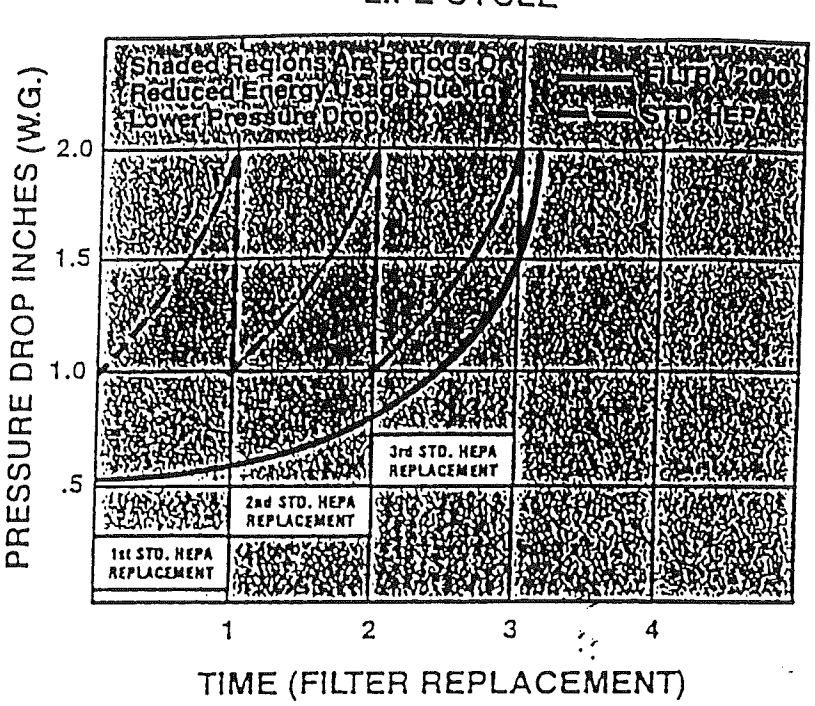
MEDIA — One continuous sheet of highly efficient waterproofed microglass fiber paper. Filters are available in different DOP Efficiencies, 95%, 99.97% and 99.99%.

ADHESIVE/SEALANT — Available with PVC, Silicon or Mineral.

GASKET — Half round one piece molded Neoprene or Silicon.

FILTRA 2000 Performance Data...





Savings in Maintenance:

Half as many filters means half the time, half the lifting, half the storage, and half the down time compared with ordinary Hepa filters. Where disposal is a problem, saving less contaminated cells to dispose of could be a real cost saver. Filtra 2000 is interchangeable with separator type Hepa filters in all standard housing and holding frames.

Extended Life:

When the Filtra 2000 (CFM) is used in place of a 1000 (CFM) filter, an increase in filter life up to three times can result depending on grade of prefiltration and existing atmospheric conditions. This significantly reduces the cost of filters, labor and disposal.

Energy Savings:

Using the Filtra 2000 (CFM) at 1000 (CFM) reduces the resistance to air flow by 50 percent. This allows for a substantial saving of energy.

FILTRA 2000 SPECIFICATIONS

Model Number	DOP Efficiency	Decontamination Factor	Size H x W x D	Weight	Capacity
9F1506	99.99%	10,000	24" x 24" x 11 1/2"	55 lbs.	2000CFM @ 1.0" W.G.
9F1505	99.99%	10,000	24" x 12" x 11 1/2"	33 lbs.	1000CFM @ 1.0" W.G.
7F1506	99.97%	3,333	24" x 24" x 11 1/2"	55 lbs.	2000CFM @ 1.0" W.G.
7F1505	99.97%	3,333	24" x 12" x 11 1/2"	33 lbs.	1000CFM @ 1.0" W.G.
5F1506	95%	20	24" x 24" x 11 1/2"	55 lbs.	2000CFM @ .65" W.G.
5F1505	95%	20	24" x 12" x 11 1/2"	33 lbs.	1000CFM @ .65" W.G.

ERRY SCAFFOLD
CESSORIES & ASSEMBLY

OTE: DO NOT DISCARD. SAVE FOR FUTURE REFERENCE. CONTAINS IMPORTANT SAFETY INFORMATION.

INSPECTION AND MAINTENANCE

SITE INSPECTION—must be performed by the person using the scaffold to make sure all components are com-e, functioning properly, and assembled correctly. Any incomplete part or one that doesn't fit should be replaced. er mount a scaffold without a complete inspection.

URN INSPECTION—scaffolding components must be inspected when returned from the job site for damage, eriorotion, missing and non-functioning parts. Such parts must be repaired, replaced or the component arded.

FORMS—must be checked for loose or missing edge banding, large holes or thin spots where plywood has been n. Banding must be replaced and worn or damaged boards discarded.

SES AND GUARDRAIL SIDES—must be checked to make sure pins are straight and locks are working. Any bent s should not be used. Pin, spring and nipple must be lubricated whenever returned from the job site. Damaged as and guardrails must be discarded.

DERS AND GUARDRAIL ENDS—must be inspected for loose or missing caster bushings and stack pins. Any bent s should not be used. Caster bushings and stack pins must be lubricated whenever returned from the job site. naged ladders and guardrail ends must be discarded.

ERS—must be checked for worn or damaged wheels, missing or damaged snaprings. Test all brake locks. Wheels n soln and bearing race turn freely and smoothly. Axle, bearing race and stem must be lubricated whenever from the job site. Damaged casters must be discarded.

GENERAL SAFETY INSTRUCTIONS

r your safety, always use guardrails on all scaf-lds at all heights.

aximum load for each basic unit is 1000 lbs. The orking load per square foot is not to exceed 100 s. on 4' units, 73 lbs. on 6' units, 50 lbs. on 8' units na 43 lbs. on 10' units.

lock pins must be engaged before using affold.

) NOT HAMMER LOCK PINS. If lock sticks, clean ease slightly. Move back and forth to free move-ent. If problem persits, replace with PSNK lock pin

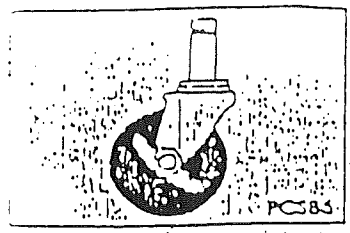
ways lock brake on casters before mounting affold.

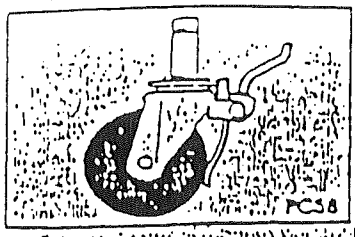
6. Lock nut screws onto threaded nipple after assembly and height adjustment.
7. If units are to be stacked, outriggers are to be used to prevent tipping. Complete units except platforms are to be stacked. For each set of ladders stacked, two trusses are to be used.
8. Do not ride rolling scaffold.
9. Inspect carefully before using. Never use scaffold or accessory if damaged or deteriorated in any way. See Inspection and maintenance section.
10. Follow all State, Local and Federal Codes, Ordinances and Regulations pertaining to scaffolding.

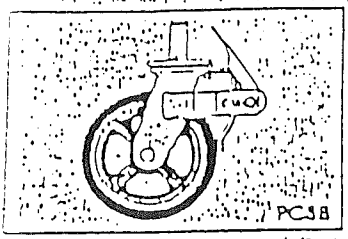
ALL PERRY SCAFFOLDS ARE CLASSIFIED BY UNDERWRITERS LABORATORIES INC. AS TO LOAD CAPACITY ONLY 65G6

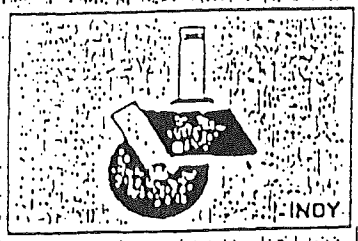
PRINTED 8/1/87 USA

TION FOR YOUR SAFETY COMPLY WITH ALL INSTRUCTIONS PLEASE READ CAREFULLY









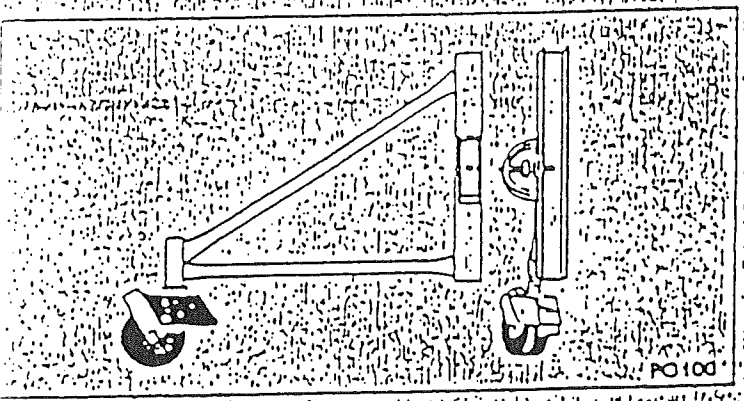
CASTERS

Always lock brakes on casters before mounting scaffold. The butterfly is to be depressed until it locks the wheel on the PCS8S caster. The lever on the PCS8, PC8B and INDY caster is to be pressed down until it locks the wheel.

Always test brakes before mounting by pushing scaffold after locking brakes to assure it won't roll. The tension on the brake can be adjusted by tightening the nut opposite the butterfly on the PCS8S caster, and by tightening the nut on the locking mechanism on the PCS8 and PC8B casters. If tightening the nuts fails to permit locking, replace the casters. Replacement casters are available from Perry.

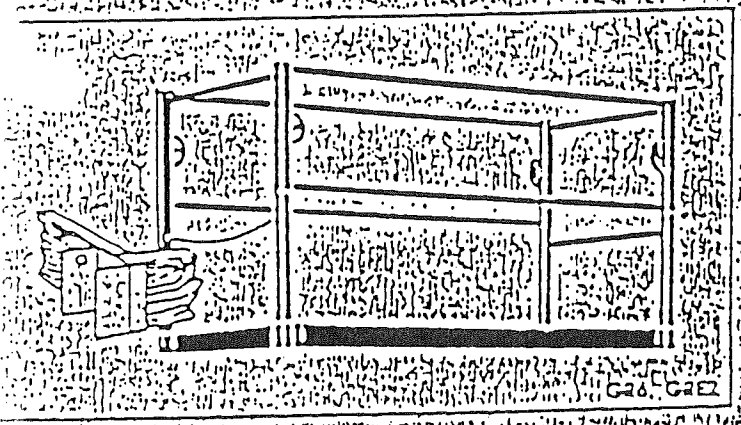
OUTRIGGERS

Before stacking units, always install outriggers to increase the width of the base and prevent tipping. Four (4) outriggers are required. When stacking units, always use two (2) trusses for each unit. Complete units except for the platform are to be stacked. DO NOT STACK MORE THAN THREE UNITS HIGH (18'). Remember the load capacity for the basic unit is 1,000 lbs. as units are stacked the capacity decreases by 150 lbs. for each unit stacked. A four-to-one height to width ratio is the maximum permitted by O.S.H.A. and ANSI standards.



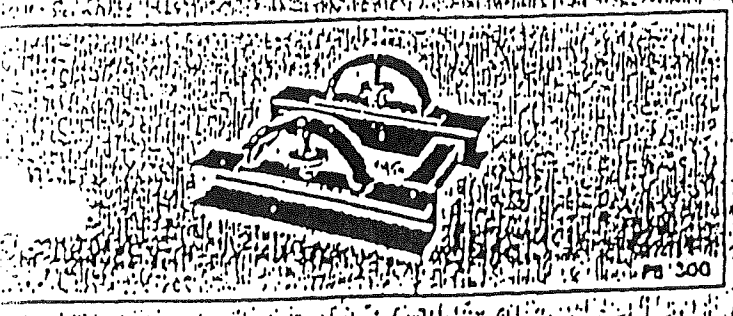
GUARDRAILS

These accessories are intended to prevent the user from falling off the scaffold while working with normal caution. They are available for all products described herein. Guardrails must be used at all heights. The side guardrails are to be adjusted in height using the positive engagement LOCKS so that the height of the side guardrail is always 42" above the platform. The end guardrails, GRE2, stack onto the scaffold ladders and provide support for the side guardrails, GR4, 6, 8 or GR 10.



TOEBOARDS AND TOEBOARD BRACKETS

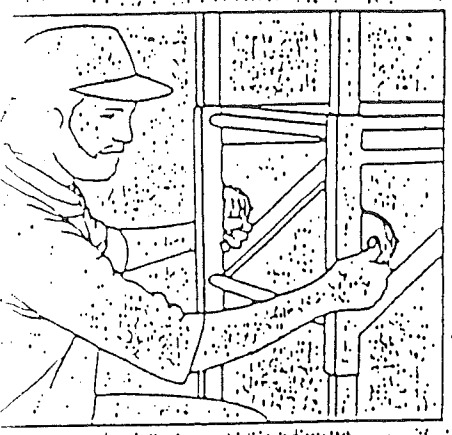
hese accessories are intended to prevent workman from knocking material off the scaffold, and to provide a toe guard which may prevent accidentally stepping off the scaffold. THEY ARE TO BE USED ANY TIME THE PLATFORM HEIGHT S 10' OR MORE. Toeboards ET2, TS6, 8 and 10 will fit all of our basic scaffolds (Model 460, 660, 680 etc.). For units joined cgether by use of PB 300 and PB 200 brackets, special end toeboard sizes are required. These are to be 1" x 4" boards nd can either be cut to fit by the user or will be provided by Perry upon request.



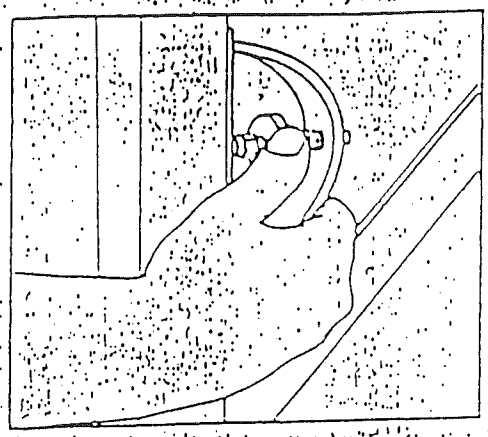
PB 300 BRACKETS

These brackets are used to join two units 4" apart. The gap between the two units is to be closed by the use of our GP 6, 8, or 10" plate. These brackets are to be placed midway on the ladder. No special trusses are required for the application. All other rules are to be followed the same as your PB 200 Bracket (see following). Use two extra PB 300 Brackets as guardrail ends for gap.

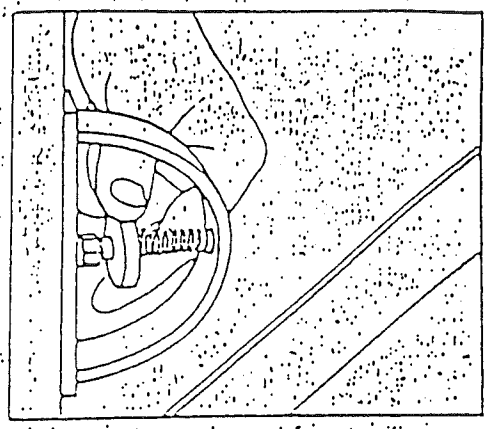
ASSEMBLY AND ADJUSTMENT



) spring loaded pin permits
ight adjustments by one man
nout removing the platform
d trusses.



Can be completely assembled by one person in less than one minute without tools.



The thumb plate screws onto a threaded nipple to positively prevent the pin from backing out.

SCAFFOLD ASSEMBLY

Insert casters by placing stem in ladder leg bushings. Drive in with hammer. Do not rest ladder on stack pins while driving casters in.

Holding ladder with one hand, engage the U channel on truss to ladder leg. Note: The pin is disengaged at this point.

Disengage caster brakes.

Grasp truss ground ladder and disengage the Positive Engagement Locks. This will permit both trusses to be moved up or down.

3. Depress thumb plate and align hole in ladder leg to pin. Release thumb plate to engage Positive Engagement Lock.
4. Attach both ends of each truss, giving you the frame for work platform.
5. Complete assembly for laying platform in place, making sure it rests within truss edge.

HEIGHT ADJUSTMENT

3. When desired height is reached, release pins to engage in aligned hole of ladder.
4. The lock nut on the thumb plate screws down on the threaded nipple after adjustment.

GUARDRAIL AND TOEBOARD ASSEMBLY

ace and guardrails on stacking pins of regular
adders. Note: The chain should go to the end most
sed.
Position and lock siderails using the Positive En-

gagement Locks. Side guardrails are to be 42" from platform.

3. Place toeboard bracket against the ladders and drop in boards.

OUTRIGGER ASSEMBLY

sert casters by placing stem in outside leg bush-
ng. Drive in with hammer.
Attach outrigger to each ladder leg with Positive
Engagement Locks. Four are required for each
unit.

3. When a work shelf is helpful, you can invert outriggers. Attach to upper ladder leg, and place utility platform on outrigger support.

CAUTION: MAKE CERTAIN GUARDRAILS ARE IN PLACE. ALL LOCK PINS ARE EN-
GAGED. CASTERS LOCKED BEFORE MOUNTING SCAFFOLD. MOUNT OR DISMOUNT PLATFORM FROM TOP CENTER OF
SCAFFOLD. DO NOT CLIMB AROUND SIDES OF LADDER OR UNIT.

?B 200 BRACKETS

?ese brackets are used to join two units 28-5/16" ?art. The two units must be equipped with one PTCP ?s for each unit. This special truss has an angle iron ?e for the extra platform to rest on. Use these brac? ?s follows:

?? are required for each two units. If units are stacked, additional brackets are required.

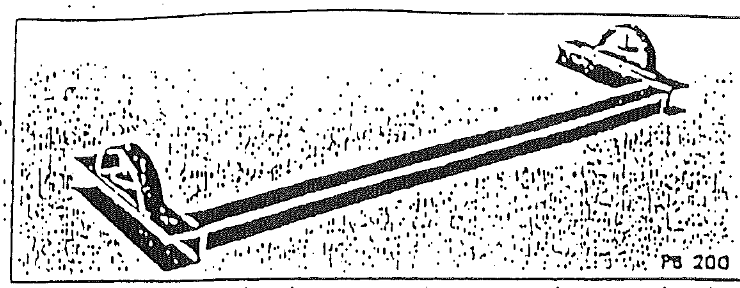
Install brackets midway on the ladder and lock in the standard manner.

The special PTCP trusses are to be installed on the scaffold with the angle iron ledge to the outside.

A standard Perry Platform will fit between two scaffolds.

Caution: If platform height is adjusted, the PB 200 brackets must also be adjusted so they are as close the center of the ladder as possible.

If units are stacked, stack complete assemblies only without platforms. Use two brackets and four trusses for each assembly stacked.



7. Do not stack more than three (3) units high (18')

8. Do not overload. Maximum capacity 1000 lbs. for unstacked assembly, 850 lbs. for assembly two units high, and 600 lbs. for three unit high assembly.

9. Lock all casters before mounting.

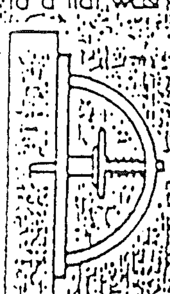
10. Units with platforms 4' or more high must have guardrails; use PB 200 brackets for guardrail end over center platform.

REPLACEMENT INSTRUCTIONS FOR POSITIVE ENGAGEMENT LOCKING PINS

REMOVAL

FROM UNITS MADE BEFORE 6/15/87

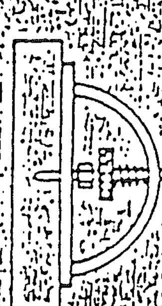
Description: locking pin with lock nut welded to a flat washer.



1. Cut locking pin with hacksaw and remove.
2. Unscrew nipple with pliers and remove.

FROM UNITS MADE AFTER 6/15/87

Description: locking pin with one-piece knurled washer lock nut.



1. Unscrew nipple with 1/2" end wrench and remove.
2. Compress locking pin (as in height adjustment). Clamp vice grips to protruding flat end. Pull pin out of the hole with vice grips. Move pin to one side and remove.

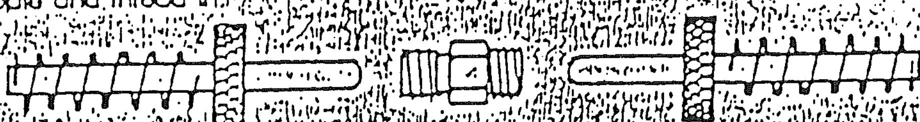
INSTALLATION

ON UNITS MADE BEFORE 6/15/87

1. Insert round end of locking pin into wide banded end of nipple and thread in.

ON UNITS MADE AFTER 6/15/87

1. Insert round end of locking pin into narrow banded end of nipple and thread in.



2. Insert new spring over flat end of pin.
3. Insert flat end of pin in "U" ring hole and compress. Clamp vice grips to protruding flat end. Pull out and move sideways until pin slides into hole in "U" channel.
4. Thread new nipple into hole in "U" channel and tighten with 1/2" end wrench.

WARNING: Do not use standard PSNK pins on 600 series scaffolds. Use only PSNK-84 pins ?? designed for 600 load limits.

MSA

Powered Air-Purifying Respirator

Type A instructions

WARNING

THIS MANUAL MUST BE CAREFULLY READ BY ALL PERSONS WHO HAVE OR WILL HAVE THE RESPONSIBILITY FOR USING OR SERVICING THE PRODUCT. Like any complex piece of equipment, the Powered Air-Purifying Respirator (PAPR) from MSA will perform as designed only if it is used and serviced according to the instructions. OTHERWISE, IT COULD FAIL TO PERFORM AS DESIGNED, AND PERSONS WHO RELY ON THIS RESPIRATOR COULD SUSTAIN SEVERE RESPIRATORY INJURY OR DEATH.

The warranties made by Mine Safety Appliances Company with respect to the product are voided if the product is not installed, used, and serviced in accordance with the instructions in this manual. Please protect yourself and your employees by following the instructions.

Please read and observe the WARNINGS and CAUTIONS inside. We encourage our customers to write or call for a demonstration of this equipment prior to use or for any additional information relative to use or repairs.

Call 1-800-MSA-2222 during regular working hours, or 1-800-MSA-5555 after working hours or during emergencies.

Manufactured by
MINE SAFETY APPLIANCES COMPANY
PITTSBURGH, PENNSYLVANIA, U.S.A. 15230

PERMISSIBLE

HIGH-EFFICIENCY POWERED AIR-PURIFYING RESPIRATOR FOR ASBESTOS DUSTS AND MISTS

United States Department of Labor
MSHA
Mine Safety and Health Administration

MINE SAFETY AND HEALTH ADMINISTRATION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

APPROVAL NO. TC-21C-354

ISSUED TO

MINE SAFETY APPLIANCES COMPANY, Pittsburgh, Pennsylvania, U.S.A

U.S. Department of Health and Human Services
Centers for Disease Control
NIOSH
National Institute for Occupational Safety and Health

LIMITATIONS

Approved for respiratory protection against dust, fumes, and mists having a time-weighted average less than 2 million particles per cubic foot and asbestos-containing dusts and mists.
The manufacturer limits the respirator to use against asbestos-containing dusts and mists.
Not approved for radionuclides.
Not for use in atmospheres containing less than 19.5 percent oxygen.
Not for entry into atmospheres immediately dangerous to life or health.
Evaluated under Part 18 for use in methane air atmospheres only, not evaluated as an ignition source in any other flammable or explosive atmosphere by MSHA/NIOSH.

CAUTION

Replace filters when the air flow falls below 4 cubic feet per minute.
In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.
Follow the manufacturer's instructions for changing filters.
This respirator shall be selected, fitted, used, and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

MSHA – NIOSH Approval TC-21C-354

Issued to Mine Safety Appliances Company, August 13, 1987

The approved Respirator consists of the following MSA parts: 7-727-1, 7-727-2, 7-727-3, 7-476-1, 7-476-2, 7-476-3, 7-250-1, 7-250-2, 7-250-3, 7-285-1, 7-285-2, or 7-285-3 facepiece; 463380 or 484082 motor-blower and hose assembly; 478782 (TC-21C-354) filters; 463239 battery and 463469 or 473902 belt.

PERMISSIBLE

HIGH-EFFICIENCY POWERED AIR-PURIFYING RESPIRATOR FOR ASBESTOS DUSTS AND MISTS

United States Department of Labor
MSHA
Mine Safety and Health Administration

MINE SAFETY AND HEALTH ADMINISTRATION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

APPROVAL NO. TC-21C-355

ISSUED TO

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The manufacturer limits the respirator to use against asbestos-containing dusts and mists.
Not approved for radionuclides.
Not for use in atmospheres containing less than 19.5 percent oxygen.
Not for entry into atmospheres immediately dangerous to life or health.
Evaluated under Part 18 for use in methane air atmospheres only, not evaluated as an ignition source in any other flammable explosive atmosphere by MSHA/NIOSH.

CAUTION

Replace filters when the air flow falls below 4 cubic feet per minute.
In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.
Follow the manufacturer's instructions for changing filters.
This respirator shall be selected, fitted, used, and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

MSHA – NIOSH Approval TC-21C-355

Issued to Mine Safety Appliances Company, August 13, 1987

The approved Respirator consists of the following MSA parts: 7-203-1, 7-203-2, 7-203-3, 7-361-1, 7-361-2, 7-361-3 facepiece; 463380 or 484082 motor-blower and hose assembly; 478782 (TC-21C-354) filters; 463239 battery and 463469 or 473902 belt.

MSA

PERMISSIBLE POWER ASSISTED RESPIRATOR

APPROVAL
2G-3374-2

MSHA

TESTED IN METHANE-AIR MIXTURE ONLY

WARNING: MSHA APPROVED FOR USE WITH 4.8 VOLT BATTERY MODULE PART NUMBER 463239 ONLY

FACTORY MUTUAL
F M
APPROVED

Intrinsically Safe for use in Class 1, Division 1. Groups C and D hazardous locations when used with MSA Battery Pack Part No. 463239.

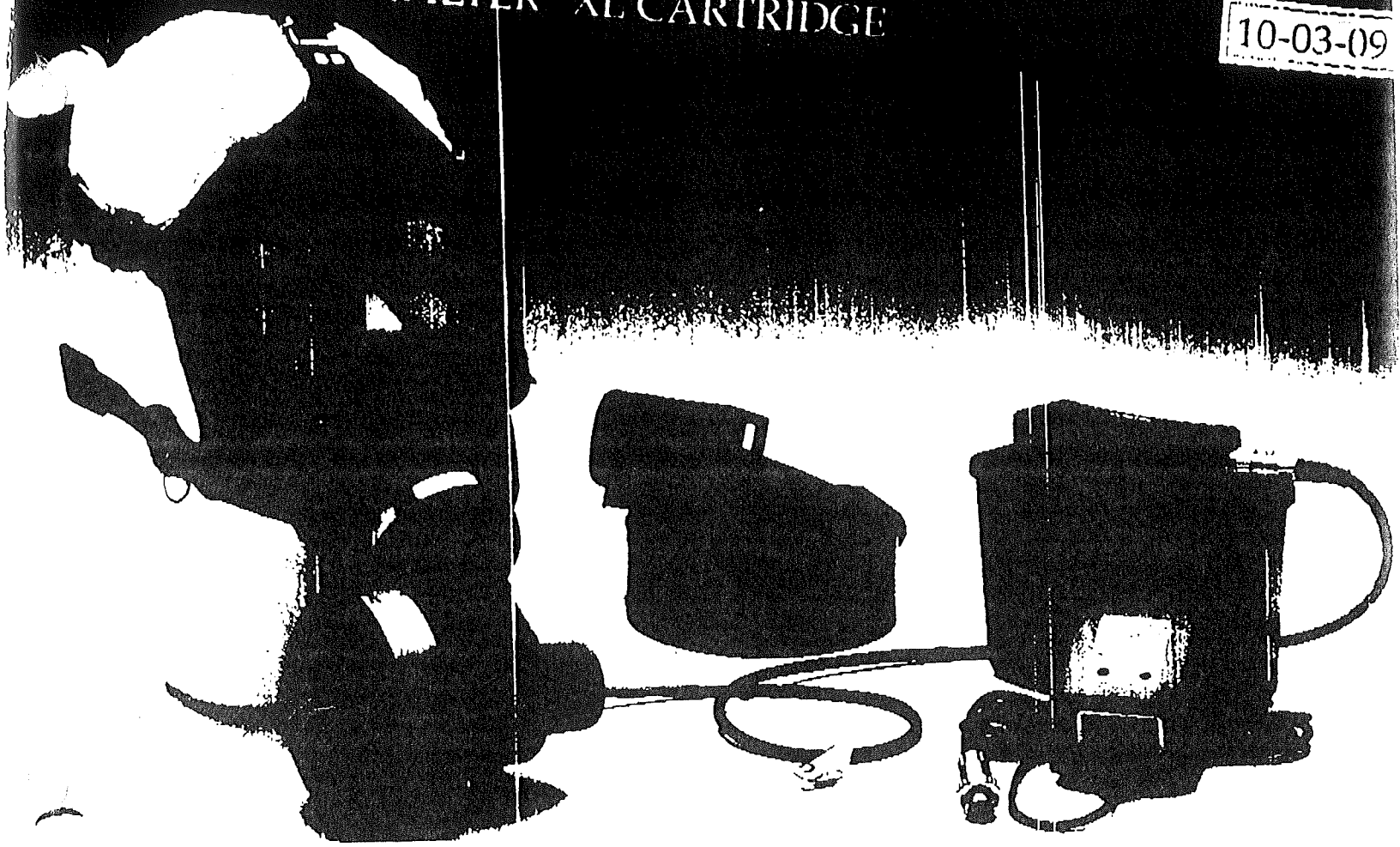
Any subsitution of components may impair intrinsic safety.

COMMONWEALTH
OF
PENNSYLVANIA

APPROVAL NO. BFE-911-83

OPTIMAIR™ MM PAPR WITH TYPE-A OPTIFILTER™ XL CARTRIDGE

10-03-09



FEATURES

- Ultravue® Facepiece and OptiFilter XL Cartridges are interchangeable with many other MSA respirators.
- Designed for long life, low maintenance, maneuverability, comfort and ease of decontamination.
- Lightweight, Mask-Mounted Motor/Blower delivers high air flows.
- Rechargeable nickel-cadmium battery pack is curved for comfortable fit.
- Optional E-Z Chek™ Indicator measures flow rates, even while the PAPR is worn in containment.

DESCRIPTION

The OptimAir MM Powered Air-Purifying Respirator (PAPR) is designed especially for work in asbestos abatement projects. The unit filters particulates and provides respirable air directly to the Ultravue Facepiece at a flow rate exceeding the standard set by the National Institute for Occupational Safety & Health (NIOSH). Because it does not have a breathing tube, the unit is more compact than other PAPRs, enhancing user maneuverability and simplifying decontamination.

In use, the impeller of the motor/blower draws air through the filter, delivering air to the wearer at a rate well in excess of the 4 cubic feet per minute (cfm) required by NIOSH. Air pressure in the facepiece is higher than the surrounding atmosphere, so that in the event of a small leak in the facepiece seal, air will flow from inside of the facepiece to the outside. The constant flow of air also provides a cooling effect to the user's face.

The cartridge and full facepiece can be used with the OptiFilter negative-pressure respirator, Constant-Flow Duo-Flo™ Respirator, OptimAir 6A PAPR and, when used with the optional D, PD valve, the Pressure-Demand Duo-Flo Respirator. When these respirator models need to be used by the same workers, this interchangeability permits individual facepiece assignments, while saving costs by reducing filter inventories.

Super Hardcoat Lens, Lens Cover, Welder's Adapter:
MSA offers an assortment of facepiece accessories that provide added lens durability or shading for special applications.

Lens covers, available in smoke-tinted and clear, provide a convenient way to add a layer of protection against scratches. Made of cellulose acetate, these self-adhesive covers can be easily installed and removed when necessary. Tinted versions are intended for applications in direct sunlight. An optional super hardcoat polycarbonate lens is available that can be user installed in place of the standard polycarbonate lens.

For eye protection in welding applications where a PAPR is required, a welder's adapter can be easily installed over the Ultravue Facepiece Lens. The clip-on style adapter can be easily removed if needed, whereas the integral adapter model is used in place of the facepiece lens. Both models are made of polycarbonate and feature a flip-up lens with large 4-1/2" x 5-1/4" vision area. (See Data Sheet 05-00-04.)

Part No.	
480326	Tinted Lens Covers (25 per package)
456975	Clear Lens Covers (25 per package)
485083	Super Hardcoat Lens
472859	Clip-on Welder's Adapter, for Ultravue Facepiece, complete with cover lens, less filter plate (see below)
470786	Integral Welder's Adapter for Ultravue Facepiece, complete with cover lens, less filter plate (see below)

Heat-treated Rayfoe™ Filter Plates with cover lens:

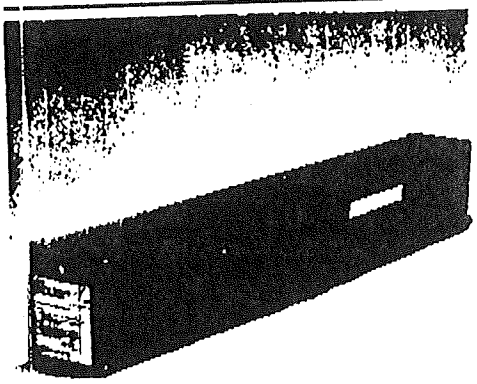
38346	Shade 6
38347	Shade 10
38277	Shade 12
38348	Shade 14

Waist Belts:
MSA offers an optional clear polyvinyl-chloride (PVC) belt that is easy to decontaminate. If decontamination is not a factor, users may also opt for an uncoated nylon web belt.

473902	PVC Waist Belt
9961	Uncoated Nylon-Web Waist Belt

Cleaner-Sanitizer II:
Each package of Cleaner-Sanitizer II can be mixed with a gallon of warm water to create a respirator cleaning/sanitizing solution.

34337	MSA Cleaner-Sanitizer II 12, 2-oz packages in dispenser carton



Modular Charging Rack:
For convenient storage of battery packs during charging, MSA offers modular charging racks. Each rack accommodates 8 battery packs and individual charging units supplied with each battery pack. Modularity allows assembly of groups of charging racks by stacking or wall-mounting.

465528	Modular Charging Rack

LIMITATIONS

The OptimAir MM PAPR is certified for wearer protection against dusts, fumes and mists with a time-weighted average (TWA) of less than 2 million particles per cubic foot and asbestos-containing dusts and mists. It is not approved for protection against radionuclides.

The OptimAir MM PAPR does *not* remove vapors or gases from the air. No filter is designed for all concentrations of all substances. Therefore, it is essential to understand what the contaminant is and to know its concentration and explosive limit, before selecting a respirator

The OptimAir MM PAPR does not supply oxygen. Therefore, it should not be used, unless the surrounding air contains a minimum of 19.5% oxygen. The respirator may be used in temperatures between 0°F and 120°F; however, if used in temperatures below 40°F, the fully-charged battery will not operate for a full eight hours.

The OptimAir MM PAPR may be worn under flame-retardant garments, providing that the filter orifice is exposed to the atmosphere and that air flow is not blocked in any way by the garment.

The replaceable filter cartridge, which traps the particulate contaminant, is a minimum of 99.97% efficient against 0.3 micron DOP.

APPROVALS & STANDARDS

The OptimAir MM PAPR with Ultravue Facepiece and OptiFilter XL Cartridge has Approval TC-21C-496 from NIOSH and the Mine Safety and Health Administration (MSHA).

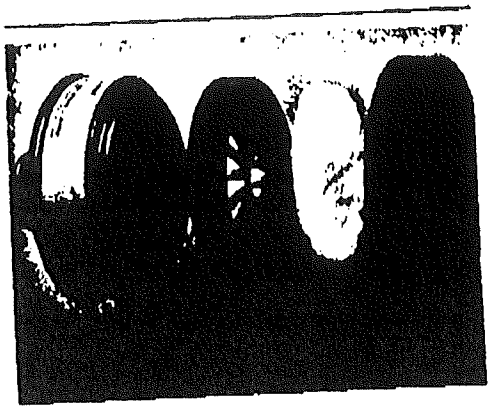
The filters must be replaced when air flow drops below 4 cubic feet per minute. The respirator is pending intrinsic safety approval for Class 1, Division 1, Groups C and D, hazardous locations.

Note: This Data Sheet contains only a general description of the OptimAir MM PAPR and accessories. While uses and performance capabilities are described, under no circumstances should the products be used except by qualified, trained personnel, and not until the instructions, labels or other literature accompanying them have been carefully read and understood and the precautions therein set forth followed. Only they contain the complete and detailed information concerning these products.

MSA Offices and representatives in principal cities worldwide.
In U.S. call nearest stocking location toll free at 1-800-MSA-2222.
To reach MSA International, call (412) 967-3249 or Telex 812453.
Corporate Headquarters: P.O. Box 426, Pittsburgh, PA 15230 USA.

Data Sheet 10-03-09

Printed in U.S.A. 9212(L)

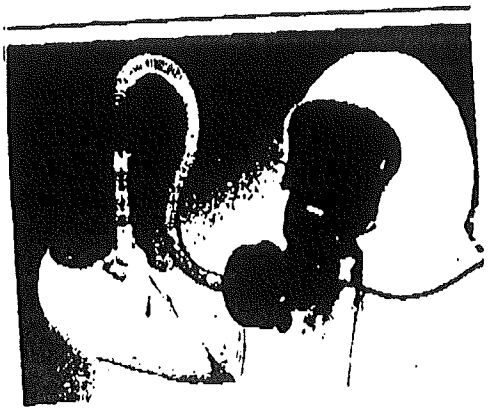


OptiFilter XL Prefilter/Cover:
To extend the life of the OptiFilter XL Cartridge, the OptiFilter XL Prefilter/Cover is an economical three-piece assembly that protects the cartridge from water spray and gross ACM. Particulate matter that does reach the prefilter is trapped before reaching the main cartridge filter. When "loaded" with particulates, the entire Prefilter/Cover Assembly can be discarded and replaced. Or, for maximum savings, discard and replace only the inexpensive prefilter.

Part No.	
497098	Complete Prefilter/Cover Assembly
493524	Prefilters, Box of 50

Switchable D/PD Exhalation Valve:
When users wish to employ their PAPR's Ultravue Facepiece on MSA pressure-demand respirators, this valve enables easy interchangeability by providing a means to alter exhalation resistance between pressure-demand and non-pressure-demand modes. The valve can be easily installed by the user in place of the standard exhalation valve. See MSA's respirator conversion matrix, (Bulletin IR-0001), for further information on MSA's modular respirator line.

Part No.	
486282	Switchable D/PD Exhalation Valve

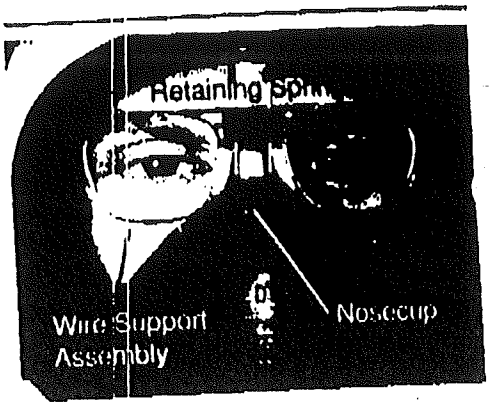


E-Z Chek Flow Indicator:
The E-Z Chek Flow Indicator is an economical, portable device for monitoring air flow performance either while the PAPR is being worn, or when it is not. It consists of a compact polycarbonate cylinder with float ball and an 18-inch flexible vinyl tube with a stopper that can be plugged into the filter orifice during operation. If the float ball rises to the top of the tube, air flow is at or above the NIOSH minimum. If not, a low-battery or filter-loading condition exists and the PAPR should not be used in containment until the condition is resolved.

Part No.	
800340	E-Z Chek Flow Indicator

Nosecup:
Molded from a soft rubber compound that is resistant to facial oils, the optional nosecup helps reduce the possibility of lens fogging. The nosecup is particularly effective under conditions of high humidity and/or low temperatures by inhibiting contact of the moist exhalation with facepiece lens. A nosecup can be easily affixed to the facepiece without tools, and any size nosecup may be installed in any size Ultravue Facepiece resulting in a customized facepiece for more comfortable use.

Part No.	
471710	Small Nosecup
471711	Medium Nosecup
471712	Large Nosecup



Spectacle Kit
For use by workers who must wear corrective lenses, the Spectacle Kit can be easily inserted into the facepiece.

The kit includes a wire support, rubber guide and one pair of metal-frame spectacles. Desired adjustment is obtained by moving the spectacles in and out of the rubber guide and by moving the rubber guide up and down the wire support. One size of spectacle frame is used (S-7 shape, 44-mm lens size) with Universal Bridge Corrective Lenses that can be obtained from local sources. The Spectacle Kit can be used in conjunction with a nosecup.

Part No.	
454819	Ultravue Facepiece Spectacl Kit for corrective lens use.

Special Probed Facepieces:
For quantitative facepiece fit testing, MSA offers Ultravue Facepieces with a probe that can be fitted into a test apparatus.

482009	Small Probed Silicone Facepiece
482008	Medium Probed Silicone Facepiece
482010	Large Probed Silicone Facepiece
471681	Small Probed Hycar Facepiece
463425	Medium Probed Hycar Facepiece
471682	Large Probed Hycar Facepiece

In operation, the facepiece, motor/blower and filter of the OptimAir MM PAPR combine to produce air flows higher than competitive units with mask-mounted motor/blowers. All components are designed for long life and low maintenance.

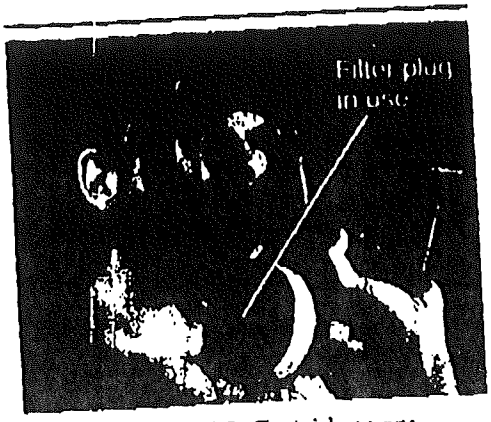
Ultravue Facepiece:
The Ultravue Facepiece used with the OptimAir MM PAPR is available in three sizes to accommodate a wide range of users. Additionally, it is available in user's choice of silicone or Hycar* rubber. Ultravue Facepieces have a scratch-resistant polycarbonate lens that provides a wide field of vision. Optional lenses and lens cover accessories provide *even greater* scratch resistance (see page 4).

The Ultravue Facepiece features an inhalation check valve and exhalation valve that work together to help prevent exhaled air from entering and contaminating the motor/blower assembly.

The facepiece's speaking diaphragm helps provide intelligible short-range voice communications, while the optional VARI-Clear™ System (see Data Sheet 01-00-21) provides voice amplification and/or customized interface with two-way radios.

Motor/Blower Assembly:
The motor/blower assembly, which threads onto the facepiece inlet, is compact and lightweight so as not to obstruct vision or impair facepiece fit. Rated for 1,500 hours of use, the motor has platinum-coated brushes for long life and low maintenance.

OptiFilter Cartridges:
The OptiFilter XL Cartridge is a high-efficiency particulate air (HEPA) filter. A single, high-performance OptiFilter XL Cartridge fits onto the motor/blower when the PAPR is used. The lightweight filter has an unrestricted air-inlet opening that helps prevent gross ACM (asbestos-containing material) from clogging the filter. When used with the OptimAir MM PAPR, the filter's extra-long life has been demonstrated in gross asbestos removal environments in which the PAPR exceeded NIOSH flow-rate requirements up to twice as long as competitive devices.



All OptiFilter XL Cartridges are equipped with a storage plug that has a special one-way valve. The plug is used for exiting and reentering containment to help prevent gross ACM from falling out of the cartridge. The plug also helps to prevent shower water from reaching the filter media.

Battery Pack:
The sealed battery pack that powers the motor/blower has six D-size, 1.2-volt rechargeable NiCad batteries, a circuit breaker (no fuses to replace), recessed transmission terminals for added protection and a water-resistant on/off switch. It is connected to the motor/blower with a heavy-gauge, rubber-coated power cord. The battery pack delivers 7 volts (nominal) to the motor/blower and is designed to sustain a charge for over 10 hours under most operating conditions.

Each OptimAir MM PAPR is supplied with a battery charger that provides a full battery charge in approximately 16 hours. An optional dual-rate charger that provides both faster charging and over-charge protection is also available.

Waist Belts:
OptimAir MM PAPRs are supplied with a soft, contoured polyurethane-coated nylon web belt featuring a slide-through friction buckle. The belt is designed for easy decontamination and comfort. Belts accommodate waists up to 48 inches. Optional belts are listed on page 4 of this data sheet.

ORDERING INFORMATION

Complete Units. Include: Motor/blower, one Type-A OptiFilter XL Cartridge, belt, battery charger and choice of Ultravue Facepiece listed below.

Part No.	
487854	Complete Unit with Small Silicone Facepiece
487852	Complete Unit with Medium Silicone Facepiece
487853	Complete Unit with Large Silicone Facepiece
487851	Complete Unit with Small Hycar Facepiece
487849	Complete Unit with Medium Hycar Facepiece
487850	Complete Unit with Large Hycar Facepiece
496078	Type-A OptiFilter XL Cartridges (Box of 50)

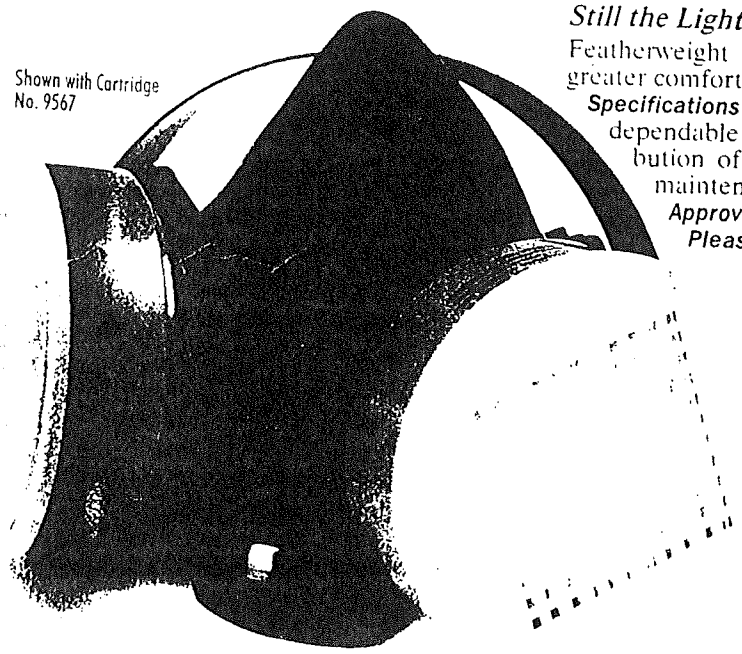
Replacement Components

487884	Motor/Blower Assembly
487803	Battery Pack
495478	Standard Single-Unit Battery Charger
497982	Polyurethane-coated Nylon Web Waist Belt
488640	Small Silicone Facepiece
488623	Medium Silicone Facepiece
488644	Large Silicone Facepiece
488627	Small Hycar Facepiece
488610	Medium Hycar Facepiece
488644	Large Hycar Facepiece
462185	Complete Exhalation Valve
461958	Exhalation Valve Seat
491934	Spider Gasket for facepiece coupling
491933	Disc Valve, inhalation
495681	Belt Loop Replacement Kit
487805	Gasket, Cartridge

ACCESSORIES

Dual-Rate Battery Charger:
The OptimAir MM Dual-Rate Battery Charger will charge a battery in less than eight hours. After the battery reaches full charge, the charger switches to a trickle-charge rate to prevent overcharging the battery.

Part No.	
409556	Single-Unit Dual-Rate Battery Charger



Shown with Cartridge No. 9567

UNIQUE FEATURE
Hypoallergenic silicone material is soft and pliable

SURVIVAIR® Half-Mask Respirator

Still the Lightest, Softest Half-Mask on the Market

Featherweight construction, very flexible—for your employees that means greater comfort and reduced fatigue by day's end.

Specifications: Large sealing surface gives your workers a superior face fit for dependable protection. Yoke suspension headstrap provides an even distribution of facial pressure. Fewer component parts translates to lower maintenance costs, saving you money. Three sizes ensure a close fit.

Approval: NIOSH/MSHA approved.

Please Specify a Size: S, M, L.

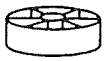
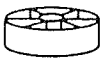
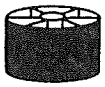
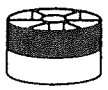
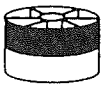
No.	Description	Each 1	Each 10
YW-16484	Half-Mask Respirator		

Full-Face/Half-Mask Replacement Parts & Accessories

No.	Description
YW-15362	Cradle Head Band (HM)
YW-9563-1	Exhalation Valve (FF), Pkg. of 4
YW-9774	Exhalation Valve (HM), Pkg. of 4
YW-9774-5	Exhalation Valve Guard (HM)
YW-9774-1	Exhalation Valve Seat (HM)
YW-9563-2	Head Strap (FF)
YW-9773	Inhalation Valve (FF) (HM), Pkg. of 6
YW-9562	Polyester Lens Cover (FF), Pkg. of 25
YW-22562	Probe Fit Test Kit (FF) (HM)
YW-9563-5	Replacement Lens (FF)
YW-9561	Silicone Nosecup (FF)
YW-9563-3	Speaking Diaphragm Assembly (FF)
YW-9563	Spectacle Kit (FF)

Note: *(FF) = Full-Face; (HM) = Half-Mask*

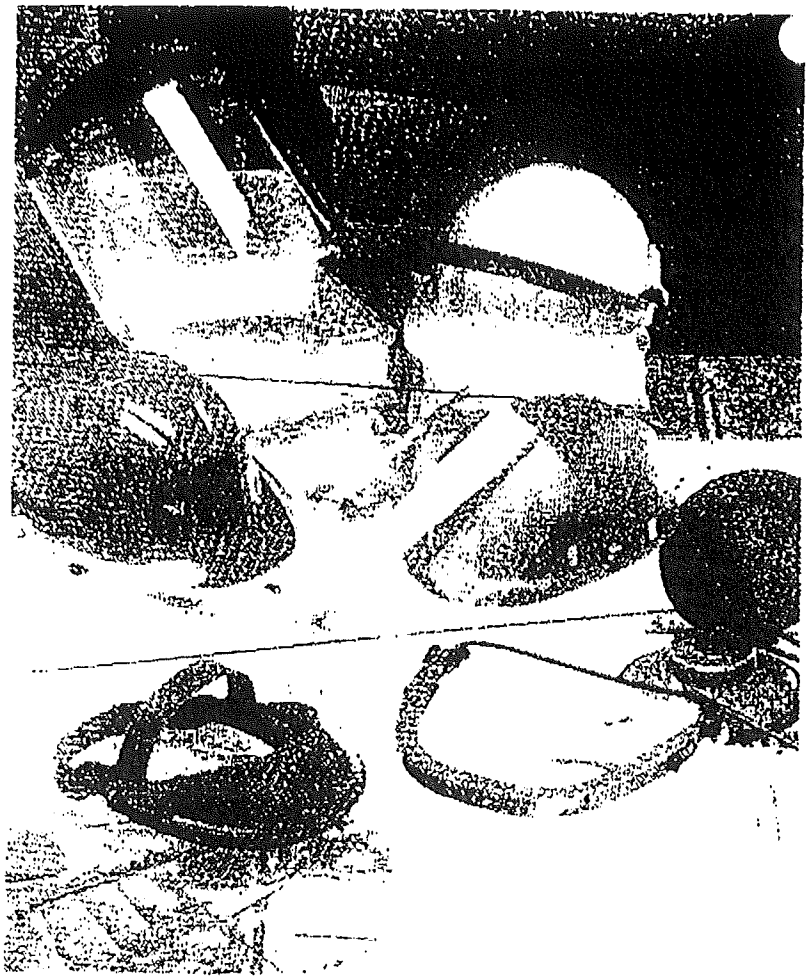
SURVIVAIR® CARTRIDGES/FILTERS

Cartridge/ Filter Type	Order No.	Description	Approved For	NIOSH/ MSHA	Qty./ Pkg.	Each	Package
	YW-9564	Organic Vapors Cartridge	Organic vapors.*	TC-23C-287 TC-23C-351	6	30.55	28.80
	YW-9566	Organic Vapors/ Acid Gases Cartridge	Organic vapors, chlorine, hydrogen chloride, sulfur dioxide, or chlorine dioxide, hydrogen fluoride or hydrogen sulfide (escape only).*	TC-23C-318 TC-23C-454	6	30.55	27.55
	YW-9565	Acid Gases Cartridge**	Chlorine, hydrogen chloride, sulfur dioxide or formaldehyde.*	TC-23C-430 TC-23C-429	6	35.30	31.80
	YW-9571	Ammonia/ Methylamine Cartridge	Ammonia and methylamine.*	TC-23C-422 TC-23C-423	6	36.20	32.60
	YW-26262	Metallic Mercury Vapor/Chlorine Cartridge	Metallic mercury vapor and chlorine.*	TC-23C-1483	6	71.75	68.25
	YW-9567	HEPA/Dusts/Fumes/ Mists Cartridge	Dusts, fumes and mists having a TWA less than 0.05 mg/m³; asbestos containing dusts and mists, radon daughters attached to these dusts, fumes, and mists; and particulate radionuclides.*	TC-21C-244 TC-21C-245	6	31.10	28.05
	YW-9574	Organic Vapors/HEPA/ Dusts/Fumes/Mists/ Pesticides Cartridge	Organic vapors; and dusts, fumes and mists with a TWA less than 0.05 mg/m³; asbestos containing dusts, mists; radon daughters attached to these dusts, fumes, and mists. Particulate radionuclides; and pesticides. Not approved for fumigants.*	TC-23C-452 TC-23C-453	4	37.75	34.05
	YW-9570	Organic Vapors/Acid Gases/HEPA/Dusts/ Fumes/Mists/ Pesticides Cartridge	Organic vapors; chlorine, hydrogen chloride, or sulfur dioxide; hydrogen fluoride or hydrogen sulfide (escape only); and dusts, fumes and mists having a TWA less than 0.05 mg/m³; asbestos containing dusts and mists, radon daughters attached to these dusts, fumes, and mists, particulate radionuclides, and pesticides. Not approved for fumigants.*	TC-23C-450 TC-23C-451	4	37.30	33.60
	YW-9575	Acid Gases/ HEPA Dusts/Fumes/ Mists Cartridge	Chlorine, hydrogen chloride, or sulfur dioxide and dusts, fumes and mists having a TWA less than 0.05 mg/m³; asbestos containing dusts and mists, radon daughters attached to these dusts, fumes and mists, and particulate radionuclides.*	TC-23C-395 TC-23C-396	4	25.95	23.40
	YW-9578 Ret. Caps YW-15371 Filter Holder YW-9580	Dusts/Mists Filter and Prefilter	Dusts and mists having a TWA not less than 0.05 mg/m³ or 2 mppcf. **May be used in combination with any Survivair chemical adsorption cartridge as a pre-filter (retainer caps required). Holder and retainer caps required when used as filter. (Sold separately.)***	TC-21C-232 (Filter approved for Half-Mask only) Prefilter Approved	60 2 2	43.05 4.40 4.30	38.75 4.00 3.90
	YW-9581 Ret. Caps YW-15371 Filter Holder YW-9580	Dusts/Fumes/ Mists Filter	Dusts, fumes and mists having a TWA not less than 0.05 mg/m³ or dusts and mists with a TWA not less than 2 mppcf. Retainer caps and filter holders required (sold separately).*	TC-21C-280 (Approved for Half-Mask only)	24 2 2	43.05 4.40 4.30	38.75 4.00 3.90
	YW-9581 Ret. Caps YW-15371	Pesticides/Dusts/ Fumes/Mists of Paint, Lacquer, Enamel Prefilter	Used in conjunction with organic vapor cartridge (sold separately) for pesticides, mists of paints, lacquer, enamels, dusts, fumes and mists having a TWA not less than 0.05mg/m³ or 2 mppcf. Not for fumigants. Retainer caps required (sold separately).*	TC-23C-530 TC-23C-531 (when used with Organic Vapors Cartridge)	24 2	43.05 4.40	38.75 4.00
	YW-9582 Ret. Caps YW-15371	Paint Mists/Lacquer/ Enamel/Organic Vapors Prefilter	Use in conjunction with organic vapor cartridge (sold separately) for paint mists, lacquers and enamels, dusts and mists having a TWA not less than 0.05 mg/m³, or any combination thereof. Not for paints containing isocyanates. Retainer caps required (sold separately).*	TC-23C-321 TC-23C-455 (when used with Organic Vapors Cartridge)	24 2	29.70 4.40	26.75 4.00
	YW-9581 Ret. Caps YW-15371	Dusts/Fumes/Mists Prefilter	Used in conjunction with Organic Vapor/Acid Gas Cartridge (sold separately) for dusts, fumes and mists having a TWA not less than 0.05 mg/m³ or not less than 2 mppcf. **Retainer caps required** (sold separately).*	TC-23C-532 TC-23C-533 (when used with Organic Vapors/ Acid Gas Cartridge)	24 2	43.05 4.40	38.75 4.00

Faceshields and Window Brackets

ARAMSCO offers complete line of headgear and windows for all industries. They feature light-weight comfort coupled with heavy-duty protection.

Our windows are designed to attach easily and quickly to a variety of ARAMSCO and competitive headgear. All headgear and windows meet ANSI Z87.1-1989 specifications.



A-F5000

This economy model features high contour pivoting crown with low-riding, pin-lock nape strap for easy adjustment. Window installation is made easy and secure by swivel posts on each side. Replaceable foam-backed sweatband for comfort.

Item 40530.....$6.15 ea

A-5500SN (Dielectric)

Designed for safety caps with adapter slots, this lightweight bracket is made of nylon with heavy-duty rubber cord which holds the bracket securely in place on the peak of the cap. Fits virtually any cap, with or without a rain trough. Bracket pivots up; adjustable tension knobs hold it in position.

Item 40533.....$5.00 ea

8154LB 8" x 15 1/2" Window
Item 40534.....$2.00 ea

4189 9" x 18" x .040" Polycar Window
Item 40545.....$3.50 ea

9154-Chin Clear Window for Face and Chin
Item 40110.....$7.00 ea

Hearing Protection

HS24 - Heavy duty model with padded headband (NRR-24)

HS22 - Contemporary light-weight design gains rapid worker acceptance. Dielectric (NRR-22)
Item 40540.....$7.00 ea

HS20 - CapMate version designed for a secure fit with most universal slot safety caps (NRR-20)

A-200 - Multi-position hearing band designed with soft, pliable *canal caps* (NRR-17)

A220 - Economical memory hearing band (NRR-16)

E-A-R Plugs in Pillow Packs are packaged 1 pair per pillow pack, 200 pillow packs per dispenser box, 10 dispenser boxes per case. Total of 2,000 pairs per case. 200/bx. (NRR29)

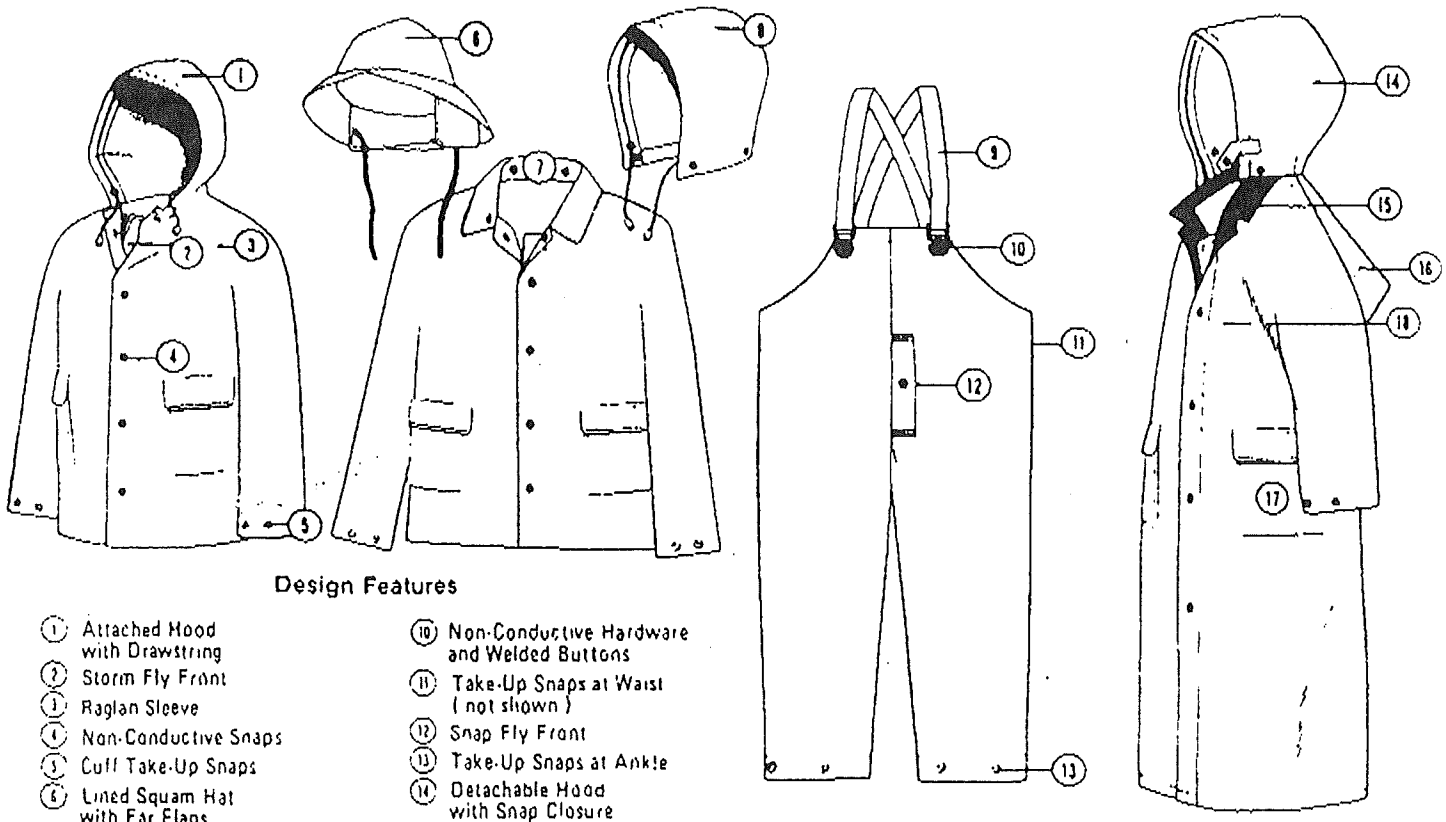
40050.....$28.00

E-A-R Plugs with Cord are packaged 1 pair per bag, 200 bags per dispenser box, 10 dispenser boxes per case. Total of 2,000 pairs per case. 200/bx. (NRR29)

40051.....$45.00

Rainwear

ARAMSCO Rainwear encompasses a full range of styles and fabrics from light-weight unsupported PVC to heavy-duty PVC coated fabrics. All garments feature overlapped and water-tight seams. Non-conductive hardwear. Full cut and generously sized for comfortable fit and long wear. Hoods are sized to fit over wide brimmed hard hats. Designed to shrug off a long list of work hazards at rock bottom prices.



Design Features

1. Attached Hood with Drawstring
2. Storm Fly Front
3. Raglan Sleeve
4. Non-Conductive Snaps
5. Cuff Take-Up Snaps
6. Lined Squam Hat with Ear Flaps
7. Jacket with Snaps on Collar for Detachable Hood
8. Detachable Hood with Drawstring
9. Elastic Suspenders
10. Non-Conductive Hardware and Welded Buttons
11. Take-Up Snaps at Waist (not shown)
12. Snap Fly Front
13. Take-Up Snaps at Ankle
14. Detachable Hood with Snap Closure
15. Black Velvet Collar
16. Cape Vent Back
17. Flap Patch Pockets
18. Badge Holder Tab

All of the garments listed above have the following design features *

Jackets	Snap Closure Storm Fly Front Take-Up Snap at Cuff	Overalls	Snap Fly Front Take-Up Snap at Waist and Ankle

PVC Rain Suit

- Jacket with detachable hood
- Pants with elastic waist
- Yellow
- 10mm

Item 20000	Small
Item 20001	Medium
Item 20002	Large
Item 20003	X-Large

48/case.....$2.72 each

PVC Rain Suit

- Jacket with detachable hood
- Bib overalls
- Yellow
- 20mm

Item 20020	Small
Item 20021	Medium
Item 20022	Large
Item 20023	X-Large
Item 20024	2X-Large

24/case.....$5.25 each

PVC Polyester Jacket

- Jacket with detachable hood
- Bib overalls
- Yellow • 35mm

Item 20130	Small
Item 20131	Medium
Item 20132	Large
Item 20133	X-Large
Item 20134	2X-Large
Item 20135	3X-Large

12/case.....$10.95 each

PVC Polyester Rain Coat

- 48" in length with detachable hood
- Cape vent and back
- Badge holder tab
- Yellow • 35mm

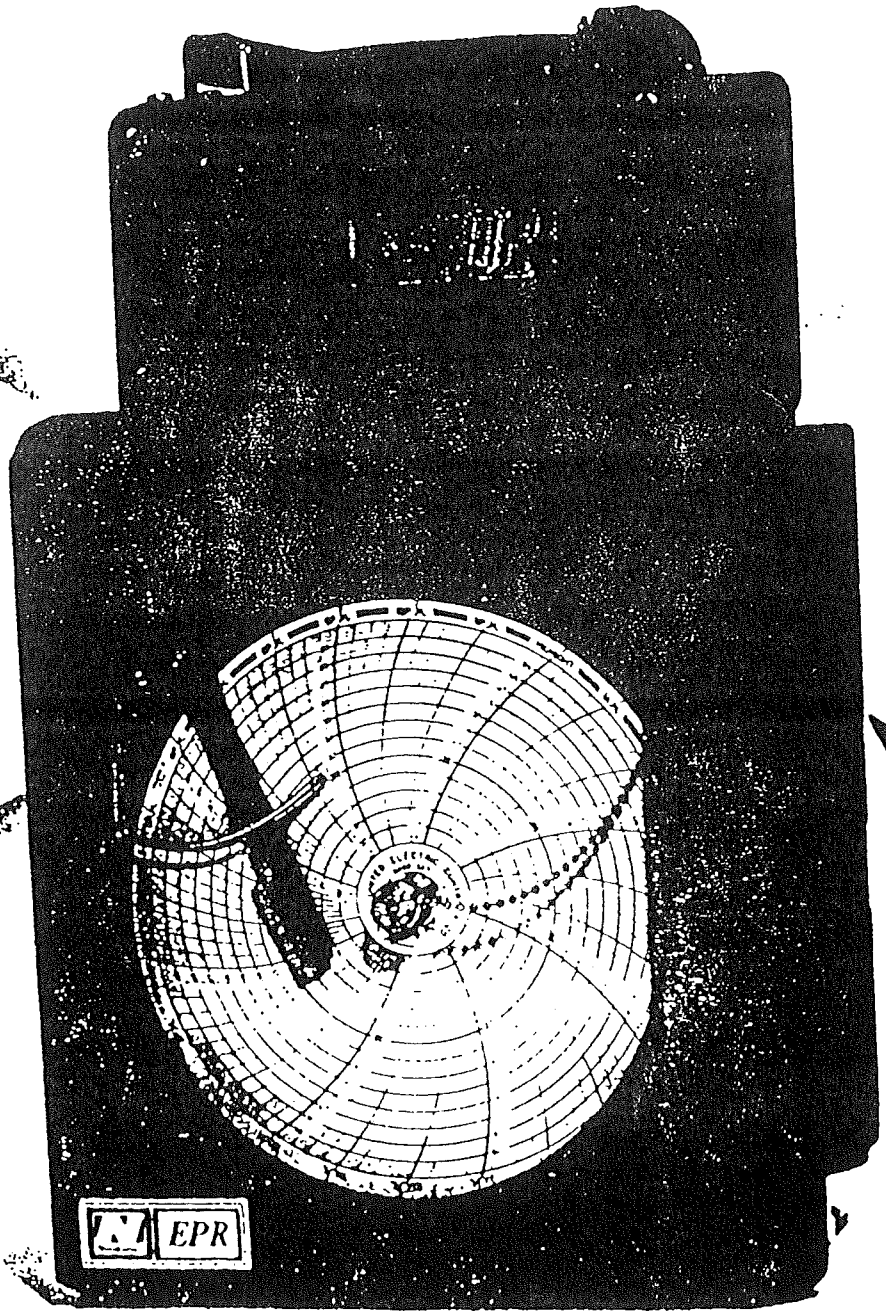
Item 20076	Small
Item 20077	Medium
Item 20078	Large
Item 20079	X-Large
Item 20080	2X-Large

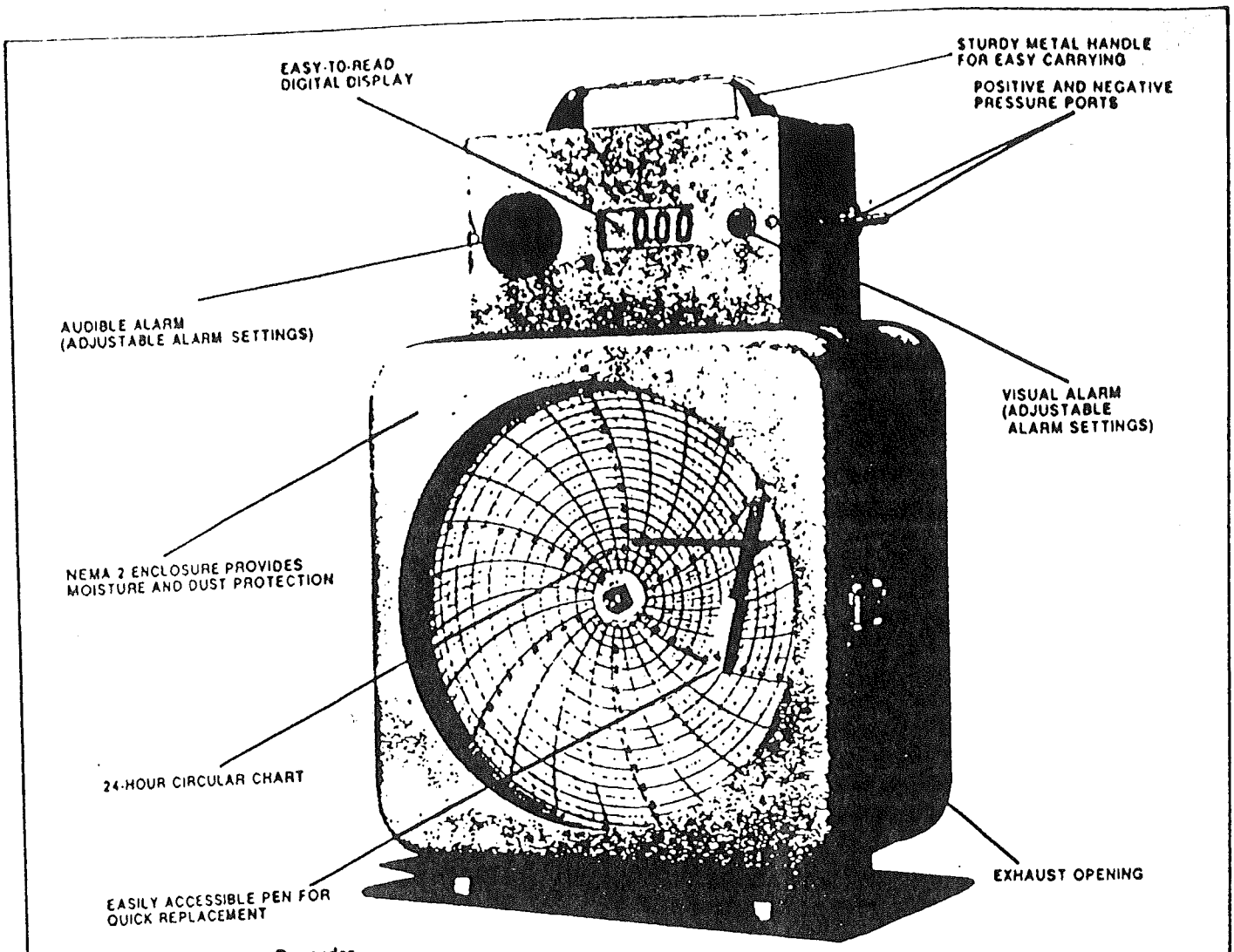
24/case.....$8.00 each

NEOTRONICS

EPR®

ELECTRONIC PRESSURE RECORDER





EPR® Electronic Pressure Recorder

TechSpecs

- **Chart Diameter**
  8 inches (Circular Chart)
- **Chart Range**
  $-.09"$ H_2O to $+$ $.09"$ H_2O
- **Chart Rotation Period**
  24 Hours
- **Operating Temperature**
  $-20°F$ to $120°F$
  $-29°C$ to $49°C$
- **Storage Temperature**
  $-40°F$ to $150°F$
  $-40°C$ to $66°C$
- **Relative Humidity**
  10 to 90% (non-condensing)
- **Pressure Sensor**
  Piezoresistive Wafer Transducer
- **Accuracy**
  - Recorder — .75% of span
  - EPM — 1% of reading
  - Combined Accuracy @ $-.02"$ H_2O (.0175 accuracy x $\pm$ $.02"$ H_2O) = .00035 H_2O
- **Case Type**
  NEMA 2 enclosure
- **Mounting**
  Portable or wall-mounted
- **Power Supply**
  115/230 VAC, 50/60 Hz
- **Weight**
  10 lbs. (4.5 kg)
- **Dimensions (Approx.)**
  9.5" x 14" x 4.5"
  23 cm x 35.5 cm x 11.5 cm

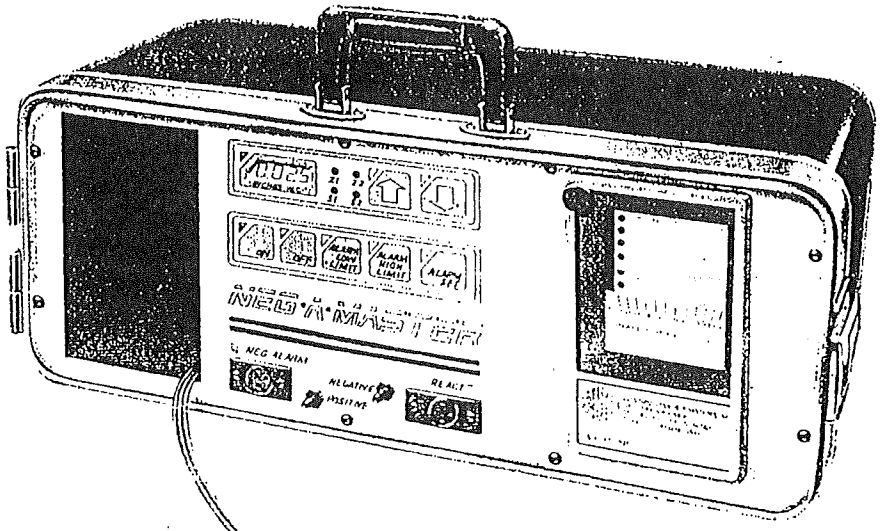
Ask about our new models offering higher accuracy and resolution to .001.

Call 1-800-535-0606 in the U.S. and Canada

NEG-A-MASTER™

Guide To Operation

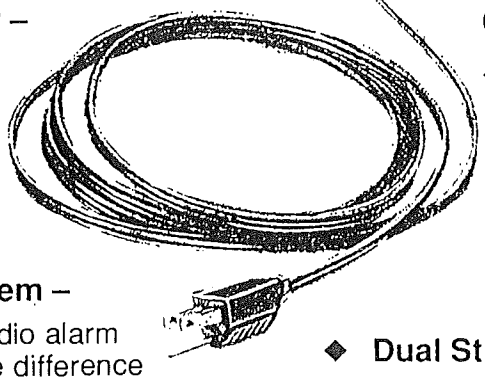
The CRSI Neg-A-Master monitors and records atmospheric pressure differences between containment areas and their outside environments. The instrument also measures positive pressure in clean rooms. An alarm system activates when pressure readings deviate from programmable limits.



- **Portable Carrying Case –**
  For easy transport, the pressure sensing tube stores conveniently behind the operating instructions panel and the electrical cord fits into the side compartment. Lock the removable cover for security.

- **Easy to Operate –**
  Touch pad controls make the Neg-A-Master simple to operate. The LCD window shows pressure differences.

- **Strip Chart Recorder –**
  The strip chart recorder provides a permanent record of pressure differences. The clear front panel slides down for easy access.



- **Effective Alarm System –**
  Both a visual and an audio alarm react when the pressure difference drops below or exceeds the programmed settings.

Optional Features

- **Neg Alarm –**
  Place this system inside the monitored environment. It has a 95 dB audible alarm and a flashing red light to alert workers to any undesirable pressure differences.

- **Dual Strip Chart Recorder –**
  The dual strip recorder produces two copies of the strip chart for permanent records.

CRSI™

Control Resource Systems, Inc.

IMPORTANT – OPERATING GUIDE USE

Before using the Neg-A-Master Pressure Monitoring System, make sure you understand all of the instructions and procedures in this manual.

Contact CRSI Customer Service for instructions on operating conditions that are not covered in this manual.

IMPORTANT – PRESSURE APPLICATIONS

Instructions in this manual apply only to negative pressure applications. For positive pressure applications, use the positive port and readjust the instructions accordingly.

IMPORTANT – TEMPERATURE RANGE

The Neg-A-Master should be stored in an environment that is between 20°F and 160°F (-30°C and 70°C).

Operate the Neg-A-Master in an environment that is between 32°F and 125°F (0°C and 52°C). If unit has been stored at a temperature lower than 32°F (0°C), it is important to let it warm up to at least 32°F (0°C) before use.

Part Names and References

All component part names and number references refer to Figure 7, the exploded-view illustration, and parts list appearing on page 11.

All Front Panel names and number references refer to Figure 1 unit controls and displays on page 5.

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Safety Precautions

For proper operation and to protect against injury to operating personnel, follow these essential safety precautions:

- **Codes**

  Follow all pertinent OSHA, Federal, State, and local government codes, standards, and regulations when installing and operating the Neg-A-Master.

  Follow all guidelines in this manual closely and never modify the Neg-A-Master.

- **Set-Up location**

  Always place the Neg-A-Master unit outside of the containment area and extend the pressure sensing tube inside of the environment.

- **Power supply**

  Use the Neg-A-Master only on grounded, three wire electrical circuits and on electrical systems with ground fault circuit operators.

  Plug the electrical cord directly into a wall outlet, three prong extension cord, or surge protector. Do not use any adapters.

  Always disconnect the Neg-A-Master before doing mechanical maintenance or changing the alarm delay.

- **Test alarm**

  Always test the alarm system before beginning to monitor.

  Remove the pressure sensing tube from the port, then activate the monitoring system. The alarm will go off if the Neg-A-Master is operating properly. Record this as a test on the paper strip.

- **Pressure sensing tube**

  Do not splice or puncture the pressure sensing tube in any way. To insure accurate monitoring, only use tubing supplied by CRSI.

  Use the shortest length of tubing necessary since the reaction time increases proportionately to tube length. Never use more than one hundred feet.

  Follow these guidelines when attaching the tube:

  - Extend the tube at least five feet into the environment
  - Keep at least ten feet away from any air handling systems
  - Suspend above the floor to prevent obstruction.

- **Maintenance and Repairs**

  To protect personnel and to avoid damage to the Neg-A-Master system, do not attempt any repairs or electrical work other than the procedures outlined in this manual.

Front Panel

The following is a review of all front panel controls and displays. The numbers match the references in Figure 1.

1. **ON.** Press to turn the power on. **Note:** this does not activate the alarm system.
2. **OFF.** Press to turn the power off. The Neg-A-Master will retain the limit settings as long as the electrical cord is plugged into an outlet.
3. **ALARM LOW LIMIT.** Press to display and adjust low limit setting.
4. **ALARM HIGH LIMIT.** Press to display and adjust high limit setting.
5. **ALARM SET.** Press to establish setting and activate monitoring system.
6. **LCD WINDOW.** The display shows pressure difference between the negative (16) and positive (17) ports during operation. The display shows limit settings during programming.
7. **CALIBRATION CONTROLS. Z1** and **Z2** recalibrate the digital display and strip chart recorder. **S1** and **S2** adjust the pressure differential measurement. Refer to"Calibration" before recalibrating.
8. **UP CURSOR.** Press to change settings after selecting **ALARM LOW LIMIT** or **ALARM HIGH LIMIT**.
9. **DOWN CURSOR.** Press to change settings after selecting **ALARM LOW LIMIT** or **ALARM HIGH LIMIT**.
10. **STRIP CHART RECORDER.** The recorder provides a permanent record of pressure differences.
11. **THUMBSCREW.** The thumbscrew fastens the recorder unit to the control panel.
12. **TOP ACCESS WINDOW.** The window slides down to expose the paper strip.
13. **CHART ADVANCE DIAL.** The dial advances the paper through the recorder.
14. **NEG-A-MASTER LOGO.** Logo appears green when the Neg-A-Master is monitoring within the programmed limits. Logo flashes red to indicate pressure difference outside of programmed limits.
15. **REACT SOCKET.** Optional feature. (Contact CRSI for more information.)
16. **NEGATIVE PORT.** Attach the pressure sensing tube to the negative port for negative pressure applications.
17. **POSITIVE PORT.** Attach the pressure sensing tube to the positive port for positive pressure applications.
18. **NEG-ALARM SOCKET.** Optional feature. (Contact CRSI for more information.)
19. **RESET BUTTON.** Refer to "Troubleshooting."

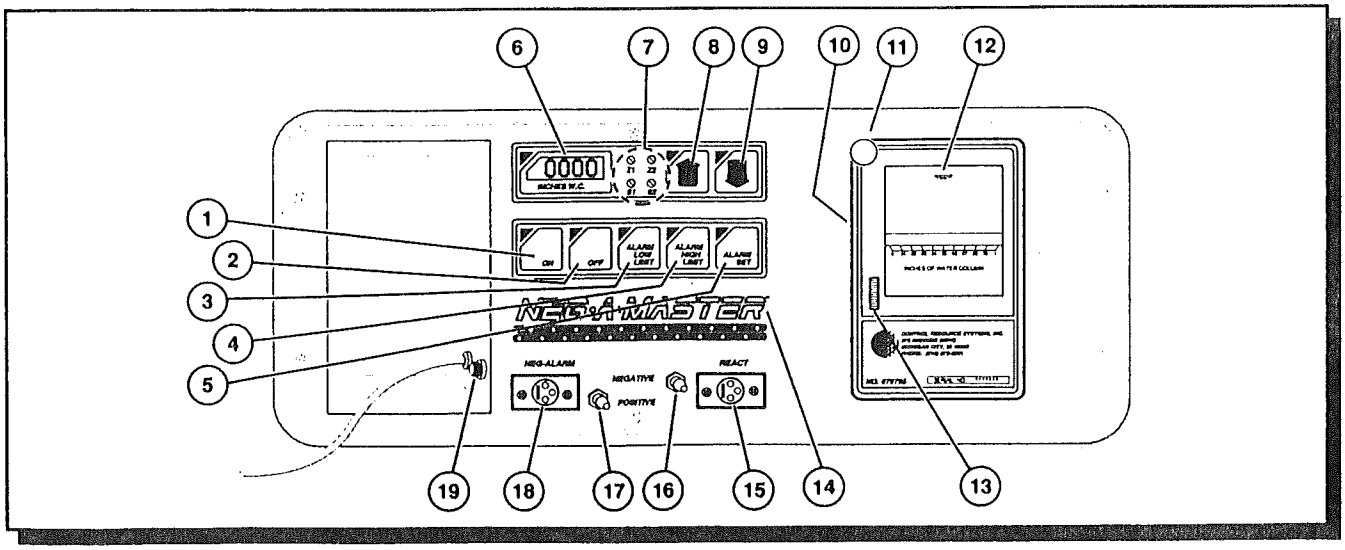


Figure 1 Front Panel Controls and Displays

Operation

• Location and set-up

1. Place the unit outside the containment area.
2. Plug in electrical cord
   Plug the Neg-A-Master into a dedicated, uninterrupted power supply. Refer to "Safety Precautions."
3. Attach pressure sensing tube to proper port (16) or (17).
   Attach the tube to the negative port. Keep the tube at least five feet into the monitored environment, at least ten feet from air handling systems, and suspended above the floor to prevent obstruction.
4. Power up system
   Press the **ON** button.

• Function test

1. Temporarily remove pressure sensing tube from Neg-A-Master port (16) or (17).
2. Simulate a program monitoring situation by:
   a. Set the low limit as follows:
      – Press **ALARM LOW LIMIT** (3).
      – Set the low limit to "0.000" with cursors (8) and (9) (See Figure 2).
      – Press **ALARM SET** (5) to establish the lower limit.
   b. Set the high limit as follows:
      – Press **ALARM HIGH LIMIT** (4).
      – Set the high limit to "0.040" with cursors (8) and (9) (See Figure 2).
      – Press **ALARM SET** (5) to establish the higher limit.
3. Monitoring will begin immediately. A properly functioning unit will show a green light in the Neg-A-Master logo, a zero reading in the LCD window, and make a clicking sound at the strip recorder.
4. Turn off the unit to end the test, and connect the sampling tube to the proper port.

• Program alarm limits

Note: Establish a pressure situation by placing the end of the tube within the containment area before setting the alarm. Otherwise the alarm will activate as soon as the Neg-A-Master begins monitoring.

1. **LOW LIMIT**
   Activate the low limit as follows:
   – Press **ALARM LOW LIMIT** (3).
   – Set the limit with the cursors (8) and (9).
   – Press **ALARM SET** (5) to establish the limit.
2. **HIGH LIMIT**
   – Activate the high limit by pressing **ALARM HIGH LIMIT** (4).
   – Set the limit with the cursors (8) and (9).
   – Press **ALARM SET** (5) to establish the limit.

• Monitoring

1. Check strip chart recorder for:
   – amount of paper left on the roll
   – zero recorder calibration.
2. Check limits
   The limits remain as long as the electrical cord is not removed from the power outlet. Check the limits before monitoring, as follows:
   – Press **ALARM LOW LIMIT** (3) and affirm that the low limit is correct. Press **ALARM SET** (5) to activate the low limit. If incorrect, select a new limit with the cursors (8) and (9) and press **ALARM SET** (5).
   – Press **ALARM HIGH LIMIT** (4) and affirm that the high limit is correct. Press **ALARM SET** (5) to activate the low limit. If incorrect, select a new limit with the cursors (8) and (9) and press **ALARM SET** (5).
   – A green light appears in the Neg-A-Master logo (13) if the pressure difference is within the established limits. If the logo flashes red, correct the pressure within the containment area.
   – The strip chart recorder will make a clicking sound to indicate that it is recording.

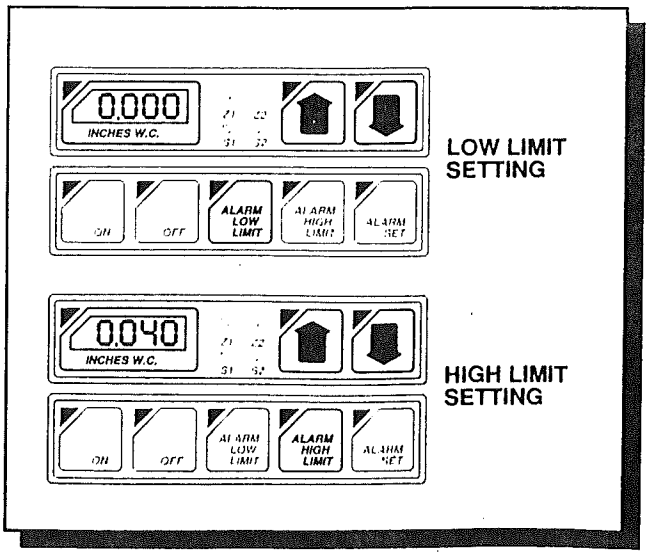


Figure 2 Function test settings

Alarm System

- **Visual warning**

  If the pressure difference is within the set limits, a green light shows in the Neg-A-Master logo (13). A flashing red light appears if the pressure difference falls below or exceeds the set limits.

- **Audio warning**

  If the pressure difference is not within the established limits, an alarm will sound.

- **Stop Warning**

  1. Press **OFF** (2) to turn off the power and the alarm. The limits will remain set as long as the system is plugged in. Establishing an appropriate pressure difference also deactivates the alarm.

     Refer to "Start monitoring" for more information.

  2. Press ALARM SET (5) to establish setting and activate alarm system

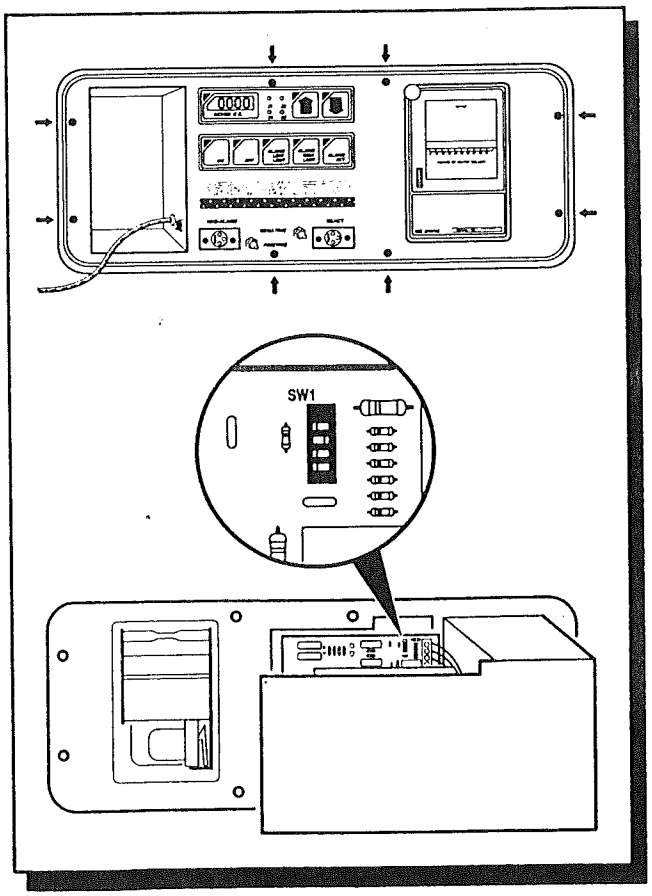


Figure 3 DIP Switch location

- **Warning delay**

  The Neg-A-Master is equipped with an adjustable alarm delay. Adjust the delay when the application requires a different reaction time than the factory delay setting of 6 seconds.

  The alarm will activate if the pressure difference exceeds or falls below the established limits for the entire delay period.

  Example: The alarm will not activate if the pressure difference fluctuates between the set limit and undesirable limits or does not remain outside of the limits for the delay period.

WARNING – Turn off and unplug the unit before attempting any internal adjustment. Failure to disconnect power cord before service may result in serious injury or death from electrical shock.

If necessary, adjust the delay time by changing the DIP switch setting. To access the DIP switch, remove all eight screws holding the front panel.

Caution: Use gentle care when changing DIP switch settings. Do not use a pencil; the point may break off. Instead use a stiff, sharp pick or stylus. See Figure 4 for setting options.

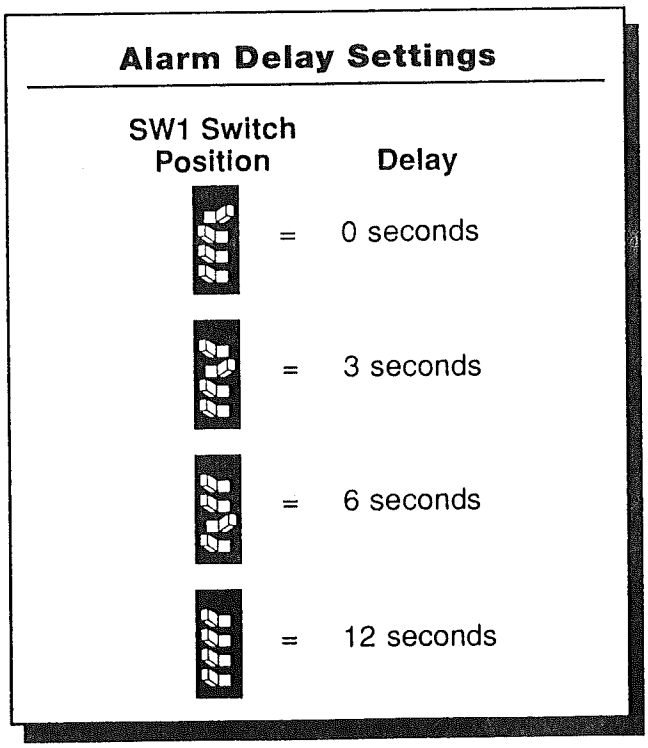


Figure 4 Alarm Delay Settings

Strip Chart Recorder

• Normal operation

When operating properly, the paper moves through the recorder at a rate of one inch per hour.

The warning "Renew Paper" will appear on the roll three feet before the end of the paper roll.

To write on the paper, slide down top access window (12).

• Manual paper advance

Push the **CHART ADVANCE DIAL** (13) in and turn down. Refer to "Troubleshooting" if the paper does not advance after turning the dial.

• Operating modes

The recorder operates in either tear-off mode or re-roll mode. Choose the desired mode.

1. **Tear-off mode**

   The paper scrolls out of the top of the recorder unit.

   To change to tear-off mode from re-roll mode:

   - Turn power off.
   - Loosen thumbscrew (11).
   - Tip recorder unit forward.
   - Remove take-up roller (22).
   - Attach drive belts (24).
   - Reinstall take-up roller (22).
   - Follow Tear-off instructions to load paper.

2. **Re-roll mode**

   The paper winds up on the take-up roller (22) inside the recorder unit.

   To change to re-roll mode from tear-off mode:

   - Turn power off.
   - Loosen thumbscrew (11).
   - Tip recorder unit forward.
   - Remove take-up roller (22).
   - Remove drive belts (24) from take-up roller (22).

   Note: Leave loose drive belts (24) attached to top roller (23). Belts will not affect the operation of the unit in the re-roll mode.

   - Reinstall take-up roller (22).
   - Follow Re-roll instructions to load paper.

• Removing paper rolls

1. Turn off power.
2. Loosen the thumbscrew (11) and then pull to the side and down.

   Note: Maneuver the recorder around the thumbscrew holder.

3. Rotate the paper retaining clips (21) on each side of the supply roller (20) so they are parallel to the front of the recorder unit.
4. If the paper is still attached, tear off at a point near the supply roller (20), and remove the roller.
5. Pull side latch guide (26) down.

   Note: If in tear-off mode, move the drive belts (24) to the center of the top roller (23) to reduce pressure on the paper.

6. Slide the paper carefully out at the top of the recorder, pulling it towards the top roller (23).

   Note: Keep paper between the front plate (25) and the back plate (27). Take care not to snag the pointer by pulling the paper in the direction of the gears.

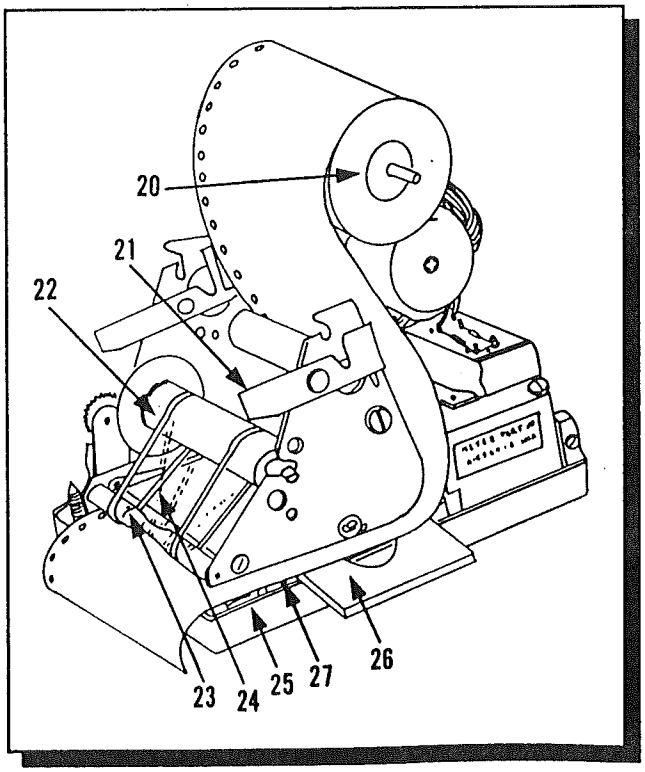


Figure 5 Strip chart recorder components

- **Tear-off – paper roll loading**

Refer to Figure 5.

1. Lower side latch guide (26) to open position.
2. Insert supply roller (20) into the perforated end of paper roll.
3. Unroll approximately one foot of paper.
4. Slide the paper into the unit, over the side latch guide (26), and between front plate (25) and back plate (27).

IMPORTANT – Paper must be installed perforated side first with the printed side facing down. Keep the paper tight and against the drive drum to avoid snagging the pointer.

5. Align sprocket holes in paper with the drive drum sprockets.
6. Postition the paper supply roller (20) in both seating notches and secure by turning the retaining clips (21) to the closed position.
7. Close side latch guide (26).
8. Place the drive belts (24) back into the grooves on top roller (23).
9. Pivot the recorder unit back into the control panel and secure with thumbscrew (11).
10. Advance the chart advance dial (13) to make sure that the paper travels through the recorder properly.

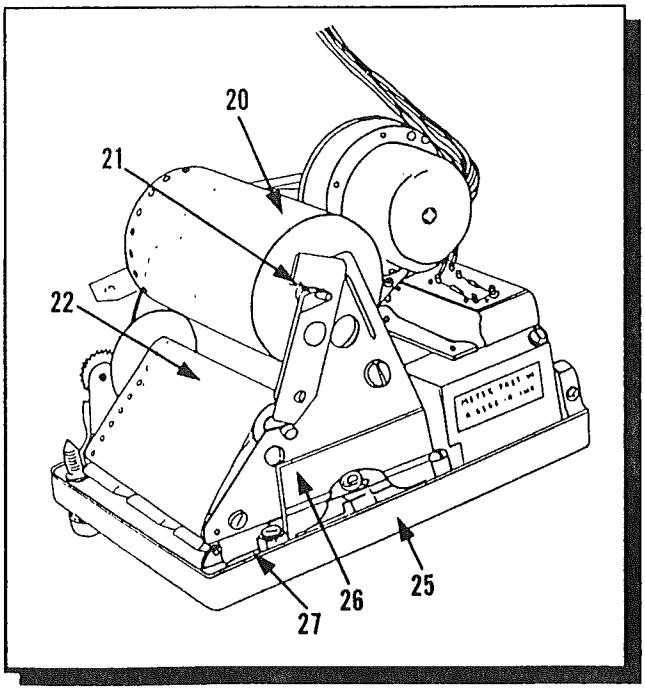


Figure 6 Loading paper – reroll mode

- **Re-roll – paper roll loading**

Refer to Figure 6.

1. Lower side latch guide (26) to open position.
2. Insert supply roller (20) into the perforated end of paper roll.
3. Unroll approximately one foot of paper.
4. Slide the paper into the unit, over the side latch guide (26), and between front plate (25) and back plate (27).

IMPORTANT – Paper must be installed perforated side first with the printed side facing down. Keep the paper tight and against the drive drum to avoid snagging the pointer.

5. Align sprocket holes in paper with the drive drum sprockets.
6. Postition the paper supply roller (20) in both seating notches and secure by turning the retaining clips (21) to the closed position.
7. Slide the cardboard sleeve all the way on the take-up roller (22) against the disc.
8. Butt the paper against the disc and tape the paper to the sleeve, printed side out. Wrap the paper around the roller a few times to make sure that it is started properly.
9. Continue rolling the paper and place the roller shaft into the notches.
10. Close side latch guide (26).
11. Pivot the recorder unit back into the control panel and secure with thumbscrew (11).
12. Advance the chart advance dial (13) to make sure that the paper travels through the recorder properly.

Calibration

- **LCD display/strip chart recorder**

  Use a small screwdriver to perform the following adjustments. Turn **clockwise** to lower the setting and **counterclockwise** to increase the setting.

  1. Turn on the Neg-A-Master.
  2. Do not attach the pressure sensing tube.
  3. Adjust **Z1** on the front panel to set the LCD window to zero.
  4. Adjust **Z2** on the front panel to set the strip chart recorder to zero.

     Note: Both the LCD window and the strip chart recorder must be set to zero.
  5. Check the calibration against a known source and observe the LCD window and strip recorder. Both will indicate the same pressure reading when properly calibrated.

- **Pressure differential measurement**

  The **S1** and **S2** adjustments, located on the front panel, control the pressure differential measurement. Calibrate them only against a known pressure and with the proper equipment and expertise. **Contact CRSI if recalibration is required.**

Maintenance

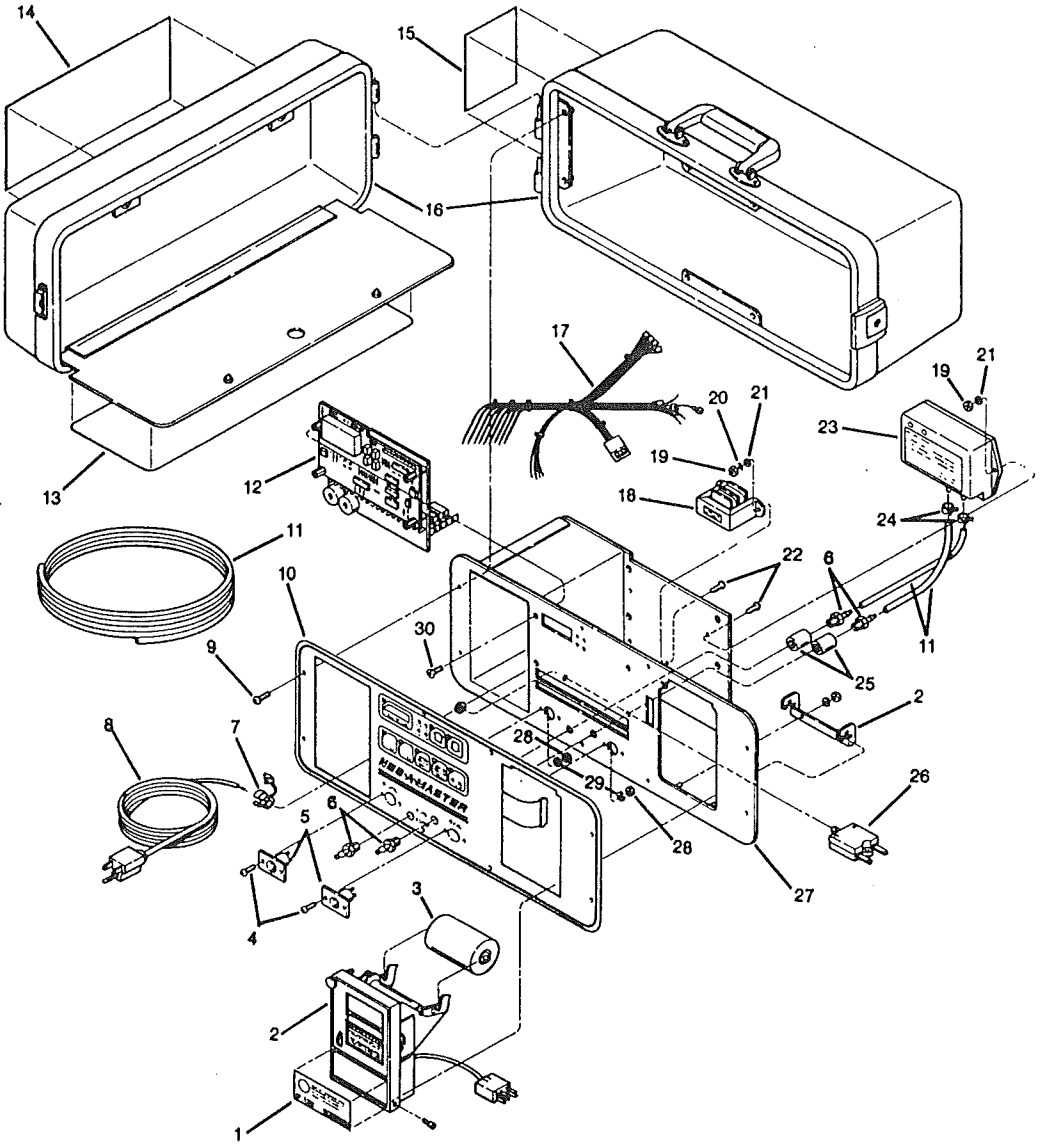
Periodically check the Neg-A-Master for proper operation by testing all possible problem areas.

- **Check display and recorder calibration**

  Press **ON** (1). Do not attach the tubing. The display and the strip chart recorder should both read zero. If they do not, recalibrate. Refer to "Calibration."

- **Check pressure differential calibration**

  Monitor without the tube attachment. If the monitor does not read zero and the visual and audio alarms do not react, the pressure differential system may need to be recalibrated. Contact CRSI. **Do not attempt to recalibrate.**



Ref#	Part#	Description	Qty.	Ref#	Part#	Description	Qty.
1	500871	Decal, Model & Serial No. I.D.	1	16	500864	Case	1
2	500865	Recorder, Chart	1	17	500929	Harness, Wiring	1
3	070791	Paper, Strip Chart	2	18	501008	Transformer	1
4	500817	Screw, #4-40X1/2" Ph Zinc	4	19	500168	Nut, #6-32	4
5	500891	Socket, Alarm Connector	2	20	500932	Washer, #6 Ext. Star	1
6	500171	Fitting, 1/8" Npt Barbed Hose	4	21	500169	Washer, #6 Lock	4
7	500890	Cord, Strain Relief	1	22	500167	Screw, #6-32 Rhms	4
8	500869	Cord, 18-3 Service	1	23	500866	Transmitter	1
9	500892	Screw, #8-32 X 3/8" Ph Zinc	8	24	500936	Clamp, 5/16" Snap Ring Hose	2
10	500870	Decal, Control Panel Overlay	1	25	500174	Coupling, 1/8" Npt Brass Female	2
11	500227	Tubing, 3/16 X 5/16 X 1/8" Flex	22Ft.	26	500928	Breaker, 1 Amp Circuit	1
12	500868	Board, Circuit	1	27	500867	Panel, Mounting Plate	1
13	500872	Decal, Operation Instruction	1	28	500818	Nut, #4-40 Hex Zinc	4
14	500873	Decal, Neg-A-Master	1	29	500819	Washer, #4 Lock Split	4
15	500893	Decal, "Property of"	1	30	500933	Screw, #6-32 X 1/4" Ph Zinc	4

Figure 7 Exploded View

Troubleshooting

Problem:	Possible Cause	Corrective Action
Alarm will not shut off	1. Hole in tube	1. Replace tube
	2. Spliced tube	2. Replace tube
	3. Alarm calibrated incorrectly	3. Contact CRSI (refer to Calibration section)
Audio/visual alarms will not activate	1. Electrical difficulty	1. Check fuses
	2. Tube attached to wrong port	2. Attach to correct port
Will not monitor	1. Monitoring system improperly activated	1. Activate properly (see Monitoring section)
	2. Tube obstructed	2. Remove obstruction
Power failure	External electrical problem	Press reset button (19)
Machine shut-down	Internal mechanical problem	Contact CRSI
Paper roll does not advance	1. Paper loaded incorrectly	1. Load properly (see Change roll section)
	2. Drive belts not returned to grooves	2. Place in grooves
	3. Gears malfunctioning	3. Remove gear panel; repair or replace gears
	4. Drive motor malfunctioning	4. Replace drive motor and cam

If problems should continue after carefully reading Troubleshooting Chart, contact manufacturer for further instructions.

Specifications

General

Dimensions: Length 18-1/2", Width 9", Height 8"
Weight: 15 Lbs.
Construction: ABS Plastic
Service Cord: 10' Cord Attached to Unit
Protection: Circuit Breaker with Manual Reset
Certification: N.B.S. Traceable

Control Panel

- 100% Solid State Circuitry
- Programmable Low and High Alarm Limit Settings
- Audible and Visual Alarm System
- Strip Chart Recorder
- Negative and Positive Pressure Monitoring Capability
- 60/50 Hz Operation
- LCD Window Shows Inches of Water Column
- REACT and Neg Alarm Connections

CRSI™

CONTROL RESOURCE SYSTEMS, INC.
A Subsidiary of CONTROL RESOURCE INDUSTRIES, INC.
670 Mariner Drive • Michigan City, IN 46360
219-872-5591 Telex: 753007

Part No. 070795

DWYER INSTRUMENTS, INC.
P O BOX 373 • MACTION RND 212 & U S 12
MICHIGAN CITY, INDIANA 46360 U.S.A.
PHONE 219 872-9141 OR CHICAGO 312 733-7083
FACSIMILE 219-872-9067 TELEX 25016

May 10, 1988

Control Resource Systems, Inc.
970 Mariner
Michigan City, IN 46360

Attention: Jeff Granacki

CALIBRATION CERTIFICATION

This is to certify that the Model 603-1 transmitter has been built and tested to conform to an accuracy of ±2% of full scale and the Model 3000-00 Photohelic gage has been built and tested to conform to an accuracy of ±4% of full scale as specified in Dwyer's published data.

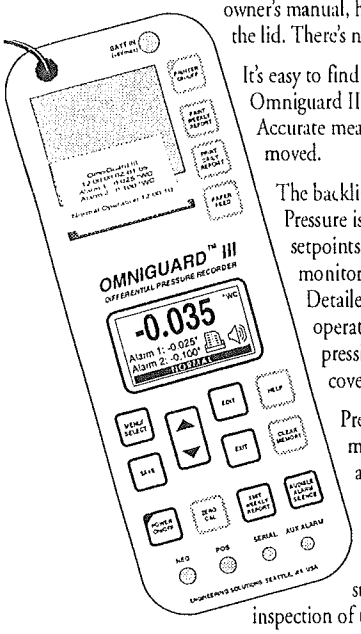
Mark E. Fisher
Sales Engineer

MEF/ll

OMNIGUARD™ III

The ideal choice for monitoring and documenting Vacuum and Pressure in a containment area. Ideal for Asbestos and Lead abatement and Clean Room monitoring.

The Omniguard III is a differential pressure recorder in a completely self-contained package, designed from the beginning to be extremely flexible yet easy to use. The included accessories, owner's manual, hose, a spare roll of paper and AC cord, store easily in the lid. There's no AC adapter to keep track of.



It's easy to find a convenient spot to place the unit since the Omniguard III is not position sensitive and can be hung by a nail. Accurate measurements continue even if the unit is dropped or moved.

The backlit graphics display provides the easiest setup possible. Pressure is indicated with large easy to read characters and alarm setpoints are always displayed. Screen icons show the monitoring, printer and audible alarm status with a glance. Detailed information for job setup, feature settings and operating instructions are available on-screen at any time by pressing the Help key. Troubleshooting topics are also covered.

Pressure readings are time stamped and logged into memory once containment has been established. Audible and visual alarms activate whenever the pressure reaches the alarm setpoints.

The Omniguard III ensures the site inspector that proper containment was maintained. Logs and summary reports can be printed at any time for easy inspection of the monitoring data. Durable and reliable, the Omniguard III is clearly the contractors choice for containment monitoring.

Specifications...

Operating Range	+/- 0.250 inches Water Column (± 6.35 mm WC, ± 62.5 Pascals)
Resolution	0.001 inches Water Column (± 0.05 mm WC, ± 0.5 Pascals)
Accuracy	+/- 0.003 inches Water Column or +/- 1% of reading whichever is greater
Pressure Units Displayed	"WC (inches Water Column), mmWC (millimeters Water Column), Pa (Pascals)
Calibration	Zero Cal function key, temperature compensated
Burst Pressure	5 psi (34 kPa) on either port
Data Storage Capacity	29500 characters, 7+ days of readings (over 2000 logged events with date/time stamp)
Display	3 square inch graphics liquid crystal display (LCD) with adjustable backlight, 128 x 64 pixels
Internal Battery	Self-charging lithium ion battery provides 30+ days of memory retention and clock operation
Printer	20 character wide thermal printer, uses 2.2" wide thermal paper, 2 rolls provided
Printing/Logging Rates	*Normal Operation* – highest and lowest readings printed/logged at intervals of 5, 15, 30 minutes or disabled *Alarm Condition* – current reading printed/logged at interval of 15, 30, 60 or 120 seconds for first 10 minutes of Alarm Condition, increasing to 15 minute intervals thereafter
Alarms	Two programmable alarm setpoints, 95dB audible alarm & flashing on-screen warning indicate alarm condition
Pressure Connections	Two 3/16" outside diameter barbed hose connectors, 10 ft. of hose provided
Serial Port	1/8" stereo phono jack, RS232 output
Aux Alarm Port	1/8" stereo phono jack, relay contact outputs: NC, NO and Common rated 1A @ 30Vdc or 0.5A @ 115Vac
Power	115 Vac 60 Hz, 6 foot power cord (stores in lid)
Case Dimensions and Weight	11.0"L x 4.0"W x 5.0"H heavy duty ABS plastic with lid, handle and hook for hanging, weight 3.25 lbs
Warranty	One Year Limited Warranty

Accessories...

OGIII Thermal Paper – 25 foot roll, 2.2" wide

OGIII User Manual – with Quick Reference

OGIII Hose 10 – 3/16" ID x 10' External Hose

Autodialer/Cable

Plugs into Aux Alarm port of the Omniguard and provides off-site alert that an alarm condition has occurred at the job site. Calls up to 4 preprogrammed phone numbers and plays a prerecorded message. Works with 20 digit phone numbers and pagers. Easy to set up and use. Battery backed memory to retain message and phone numbers in the event of a power outage. Includes 6' cables to connect to the Omniguard and to a standard RJ11 phone jack ....P/N: OG3Dial

Remote Auxiliary Alarm

High intensity strobe light with 95dB audible alarm alerts workers and bystanders to hazardous condition; activated by Omniguard when an alarm condition occurs. Plugs into Aux Alarm port. Includes 25' cable to allow alarm placement within the containment area. ..... P/N: OG3Alarm

PC Communication Kit

Transmit recorded job site logs to an IBM compatible PC for permanent storage, statistical analysis and summary report generation. Includes 6' cable and application software (DOS and Windows versions) Extremely easy to use. .....P/N: OG3Comm

Options...

Battery Pack Operation

For use when AC power is unavailable or during intermittent power conditions. Provides up to 48 hours of operation when printer is turned off, 12-24 hours when printer is turned on. Recharges in 6-8 hours when plugged into 115Vac. Includes carrying case, charger and cable to link to Omniguard. Requires modifications to Omniguard to support external battery packs. ..... P/N: OG3BatOp

220VAC Power Supply Operation

Designed for use where 220-240Vac 50Hz power is normally available. Choice of plug styles. Requires modifications to Omniguard. ..... P/N: OG3VAC220

Certificate of Accuracy ..... P/N: OG3Cert

NIST Traceable Certification ..... P/N: OG3Nist

Optional Pressure Ranges ..... call

stributed by

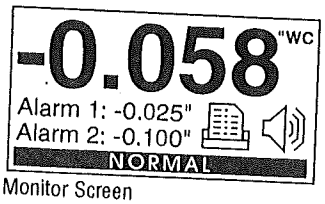
ENGINEERING SOLUTIONS INC
6000 Southcenter Blvd • Suite 70 • Tukwila, WA 98188 • Phone 206-241-9395 • Fax 206-241-9411

Omniguard III Quick Reference

Starting A New Job

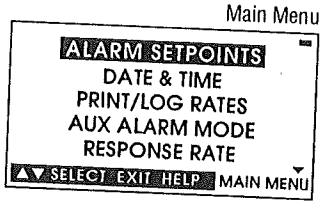
1. **PRINT WEEKLY REPORT** for printout of previous job.
2. **CLEAR MEMORY**.
3. Check Alarm 1 & 2 setpoints (operating window), adjust if needed.
4. Check Date & Time, set if needed.
5. **ZERO CAL** if desired, pressure tubing must be disconnected from unit.
6. Connect pressure tubing to NEG inlet.

Unit will display WAITING FOR PRESSURE until pressure reaches operating window. Once reached, displays NORMAL and begins printing & logging of pressure readings.

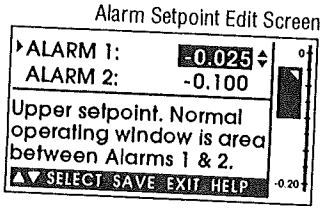


Monitor Screen

Main Menu



Alarm Setpoint Edit Screen



Example Editing Session

1. **MENU/SELECT** to go to main menu.
2. Scroll highlight to ALARM SETPOINTS using ▲/▼.
3. **EDIT** to go to edit screen.
4. Alarm 1 setting can now be increased or decreased by using ▲/▼.
5. Once desired value is reached, press **MENU/SELECT** to highlight Alarm 2 setting. Pointer to left of Alarm 1 will move to Alarm 2 and info box text will show Alarm 2 info.
6. Use ▲/▼ to adjust value of Alarm 2 setting.
7. **SAVE** updated settings for Alarm 1 & 2 by pressing **SAVE**. **SAVE**'ed settings are printed & logged to memory.

or

EXIT to return to main menu **without** saving . You can exit editing session at any time.

Main Menu

Alarm Setpoints
Date & Time
Print/Log Rates
Aux Alarm Mode
Response Rate
Display
Pressure Units
Passcode Protect
Configuration Report
View Log

• use **EDIT** to change settings of main menu functions •

Help Menu

How To Navigate
Current Status
Audible Alarm Silence
Loading Paper
? Will Not Print
? Pressure Stuck
? Paper Jam
? False Alarms
? Tech Support

• detailed **HELP** information is **always** available by pressing **HELP** •

OMNIGUARD™ III

DIFFERENTIAL PRESSURE RECORDER

Owner's Manual

ENGINEERING SOLUTIONS INC

Omniguard ™ III

Differential Pressure Recorder

Introduction

Unpacking

The *Omniguard III* is shipped complete and ready to use. When unpacking the unit, please check for the following items:

- Roll of thermal paper (installed)
- 10 ft. inlet pressure tubing
- Owner's Manual
- Registration Card
- Accessories/Options Brochure

Save the shipping box and packing material, in the event the unit must be shipped to another location or for service. If you are missing any items shown on the packing list, or if you have any questions regarding your *Omniguard III*, please call your dealer or Engineering Solutions at (206) 241-9395.

Please remember to fill out and return the Registration Card.

Owner's Manual Overview

This manual covers the basic setup and operation of the *Omniguard III*. It uses several different fonts and other special characters to make various unit functions and types of reporting easy to identify. Below is an example of each:

- Text printed on the screen is shown like this: ALARM 1
- Thermal printer text is shown like this: **NORMAL OP**
- Keys and connectors on the front panel are shown like this: **AUDIBLE ALARM SILENCE**

Features

- Real-time differential monitoring of vacuum and/or pressure level
- Extremely simple to setup and use, with on screen help available via a **HELP** key
- Data storage in internal memory with record of operation available

for printing and computer downloading

- 7+ day internal memory stores pressure readings and alar occurrences with a date/time-stamp
- Digital printout with 3-digit precision
- Totally self-contained unit with all necessary parts stored secure inside the lid of the unit
- Temperature compensation circuitry eliminates the need for ol site calibration
- Easy-to-read graphic LCD display with backlight shows curre pressure reading, operation status and alarm setpoints
- Pressure readings displayed in Inches WC, Millimeters WC c Pascals
- Microprocessor circuitry eliminates the inaccuracies of analo strip chart recorders
- Programmable high and low alarm settings
- Audible and visual alarm systems with Audible Alarm Silenc function.
- Operating temperature range 30°- 130°F
- 1 Year Warranty

Options

- Remote high intensity strobe light with 95db audible alarm and 25 ft. cable
- Telephone autodialer kit
- PC Communication kit for transmitting recorded job site information to a computer
- Battery pack for portable operation
- NIST traceable certification
- Alternate operating pressure ranges
- 220VAC, 50Hz power supply operation

Section 1: Basic Care

Omniguard III is bullt and engineered to provlde you with dependable performance for years to come. Following these basic guidelines will insure that you get maximum use from your unit. Once the unit is set up, fleld operatlon ls easy. Complete reports are vlrtually automatic, providing the most accurate records of your job site conditions available.

- This unit is designed to measure differential pressure only up to +0.250" to -0.250" WC (optional pressure ranges are available).

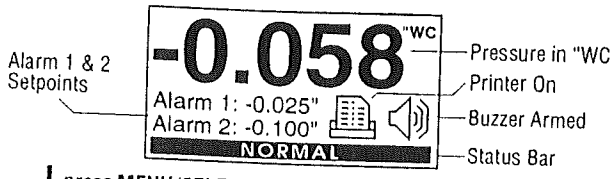
  *Never apply pressure to the inlet port by mouth or with any other strong pressure device. **High pressure may permanently damage the sensor.***

- Use only *Omniguard II/III* thermal printer paper.
- Always store the unit away from sources of excessive heat, dust and moisture.
- Never attempt to repair any of the internal components of the unit.
- Protect the unit from strong shocks or vibrations. Be sure the lid is securely closed whenever transporting the unit.
- Be sure to plug your *Omniguard III* into a power supply that complies with the National Electrical Code. Keep all connections dry. As with any electrical device, this unit has the potential to cause an electrical shock hazard.
- If your unit must be shipped at any time to another location or for service, use the original packing material and shipping box for optimum protection during shipping.

Section 2: Navigating The LCD Display

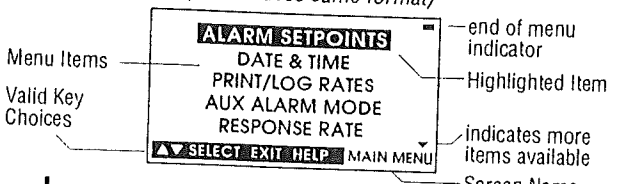
The *Omniguard III* display features four screen types, shown below. Press the indicated key to move from screen to screen.

Monitor Screen



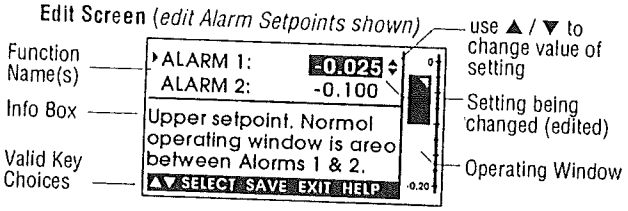
↓ *press* **MENU/SELECT**

Main Menu (*Help Menu uses same format*)



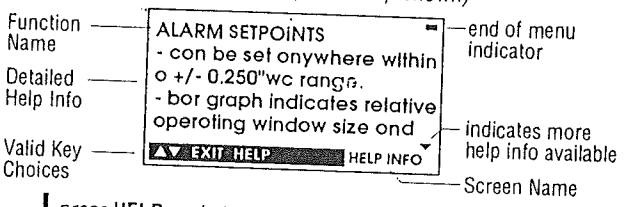
↓ *press* **EDIT**

Edit Screen (*edit Alarm Setpoints shown*)



↓ *press* **HELP**

Help Info Screen (*Alarm Setpoints help shown*)



↓ *press* **HELP** again to go to Help Menu Screen

↓ *press* **EXIT** to return to previous screen or Monitor Screen

Section 3: Quick Setup & Usage

This section is a quick reference checklist for setting up your *Omniguard III*.

1. Insert one end of pressure tubing inside the containment area.
2. Locate a convenient place for *Omniguard III* outside the containment. Plug power cord into a power outlet and turn unit on.
3. Press **PRINT WEEKLY REPORT** for a printout of the previous job, if required.
4. Clear memory using the **CLEAR MEMORY** key.
5. Check Alarm 1 & 2 setpoints (operating window), adjust if needed.
6. Check Time and Date. Set if incorrect.
7. If desired, calibrate unit using **ZERO CAL** feature. The pressure tubing must be **disconnected** from the unit for calibration.
8. Connect pressure tubing to **NEG** inlet.

The status bar will indicate WAITING FOR PRESSURE until pressure reaches the operating window. Once this is reached, the status bar will display NORMAL indicating that the unit is now in its normal operational mode. Printing and logging of pressure readings begins once the normal operational mode is achieved.

During normal operation, the highest and lowest pressure readings will be printed and logged into memory with a time/date stamp **every 15 minutes** (the default Print/Log rate).

If the monitored pressure then goes **outside** the operating window, the unit will enter alarm mode. The buzzer will sound, the status bar will change to >>ALARM<< and begin flashing. The print and log rate of the pressure readings will increase to **every 15 seconds** (the default Print/Log Alarm rate).

Sample Editing Session

1. From the Monitor Screen, press **MENU/SELECT** to go to the Main Menu.
2. Use the ▲/▼ arrow keys to highlight ALARM SETPOINTS.

3. Press **EDIT** to go to the Edit Screen and allow changes to the **ALARM SETPOINTS**.
4. The **ALARM 1** setting can now be increased or decreased by using ▲/▼.
5. Once the desired value has been reached, press **MENU/SELECT** to highlight **ALARM 2** setting.
6. Use ▲/▼ to adjust the value of the **ALARM 2** setting.
7. Save the updated settings for both Alarm 1 & 2 by pressing **SAVE**. Saved settings are printed and logged into memory.

   or

   EXIT to return to Main Menu **without** saving. You can exit an editing session at any time.

   Note: Press **HELP** *to access detailed information at any time during the edit session.*

Section 4: Detailed Operation

The *Omniguard III* monitors and records the differential pressure between the **NEG** inlet port tubing and the **POS** inlet port.

In asbestos or lead abatement the *Omniguard III* should be located outside the work area. This allows a supervisor or hygienist to monitor negative pressure readings without entering a work area.

Work Area Setup

The intake end of the pressure tubing must be located **away from** negative air machines and airlock entrances. Choose a location away from excessive dust or moisture.

1. Cut a 1/2" slit in the polyethylene barrier and feed approximately 1 ft. of pressure tubing through it. Tape the tubing securely to the polyethylene.
2. Connect the free end of the tubing securely over the **NEG** inlet port. Be careful not to turn the nozzle.
3. The Alarm 1 and Alarm 2 settings should be in negative units when used to monitor a negative containment area. For positive containment applications, use positive units (Inches WC, Millimeters WC or Pascals) for alarm setpoints.

   NOTE: It is important that there be no kinks or sharp bends in any part of the tubing. Any blockage could inhibit accurate recording of the pressure in the containment area.

Power-Up

To begin operating the *Omniguard III*, plug the power cord into a standard wall outlet supplying 115VAC, 60Hz and press the **POWER ON/OFF** key. The first time a new unit is turned on the settings will be at default values.

Initial Power-Up -- a start-up screen will ask the user to edit the unit's Date & Time and Alarm 1 & 2 setpoints because they are set at the factory defaults. *This happens only until these functions are edited, usually only the first time the unit is used.*

Normal Power-Up Sequence -- If the unit was properly turned off after the previous usage, **POWER OFF** will print. Otherwise

POWER FAIL will print, indicating that an AC power failure may have occurred. Either message will be followed by the date and time the unit was last powered off.

A diagnostic test will automatically run and the unit will print the date, time and the current alarm setpoints. At this time the unit will immediately begin to monitor containment pressure.

Until the containment pressure has reached the operating window, the status bar will indicate WAITING FOR PRESSURE.

*Note: Logging and printing of monitored pressure readings does **not** begin until the containment pressure has reached the operating window!*

You will need to customize the factory Alarm 1 and Alarm 2 setpoints for your application!

Once the containment pressure reaches the operating window, the area between the Alarm 1 and Alarm 2 setpoints, the unit's status bar changes from WAITING FOR PRESSURE to NORMAL and **NORMAL OP** is printed along with a time-stamp.

Clearing Memory

Before starting a new project clear the memory. This will not erase any setpoints or alter any other settings but it will provide you with maximum storage space for the recording of data.

Note: It is a good idea to print out the memory contents, using the **PRINT WEEKLY REPORT** *prior to clearing the unit's memory so a record of the previous project exists. See Section 4: Printing Reports, Page 18 for more information.*

To clear the memory --

1. Press the **CLEAR MEMORY** key.
2. Press **CLEAR MEMORY** again to confirm your desire to clear the memory.

*Pressing any other key will return you to the Monitor Screen **without** clearing the memory.*

When completed, the screen will display Done. After a few moments the unit will automatically return to the Monitor Screen.

The memory has a capacity to store 29,500 characters of printed data. This represents 7-10 days of normal operation and approximately 200 alarm messages. When the memory is full, the new data will begin to overwrite the oldest data.

Note: Overwritten data cannot be retrieved.

Zero Calibration

The *Omniguard III* does not require calibration. Internal temperature compensation circuitry provides unsurpassed accuracy over a 30°-130° Fahrenheit range.

To reset the zero point --

1. Disconnect the pressure tubing from the **NEG** and **POS** inlets.
2. Press **ZERO CAL**.
3. Press **ZERO CAL** again to confirm your desire to reset zero.

*Pressing any other key will return you to the Monitor Screen **without** resetting zero.*

When completed, the screen will display DONE. After a few moments the unit will automatically return to the Monitor Screen.

*Note: Allow the unit to warm up for 15 minutes prior to zero calibrating. This permits the pressure sensor to stabilize its readings. Zero calibration can only be done when the pressure tubing is **not attached to the unit**.*

Alarm Setpoint Selection

The normal operating window is the area between the Alarm 1 and Alarm 2 setpoints. These setpoints can be set anywhere within the operating range of the unit; +/- 0.250" WC. The *Omniguard III* can also operate in units of mmWC or Pascals. *See Pressure Units.*

Alarm 1: (default is -0.025"WC)

- range is +/- 0.250"WC in increments of 0.005"WC
- upper setpoint of operating window

Alarm 2: (default is -0.100"WC)

- range is +/- 0.250"WC in increments of 0.005"WC
- lower setpoint of operating window

The *Omniguard III* can be used in **both positive and negative** pressure monitoring applications. The procedure for setting of Alarm setpoints is the same for both applications.

Positive Pressure Application -- Clean room or HVAC system

example settings: **Alarm 1** @ +0.050" WC
Alarm 2 @ +0.025" WC

Negative Pressure Application -- Asbestos or lead abatement

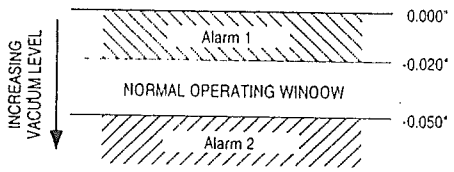
example settings: **Alarm 1** @ -0.020" WC
Alarm 2 @ -0.050" WC

Example of Setting Alarm Levels

This is an example of setting the alarm levels for a negative containment area with an operating window of -0.020" to -0.050" WC.

To change the Alarm Setpoints --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight ALARM SETPOINTS using ▲/▼.
3. Press **EDIT** to change the setpoint value.
4. Use ▲/▼ to set Alarm 1 to -0.020"WC. The value will change in 0.005" increments. The bar graph at the right of the screen indicates the relative operating window size within the operating pressure range of the unit.



5. Press **MENU/SELECT** to highlight Alarm 2 for editing. Use ▲/▼ to set the value to -0.050"WC.
6. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

Once the containment pressure reaches a value between -0.020" and -0.050" WC the unit will be in normal operational mode.

Then, if the containment pressure ...

... rises to -0.019" WC, **Alarm 1** will activate.
... falls to -0.051" WC, **Alarm 2** will activate.

Date & Time

The date and time settings are used as a reference time-stamp for all logged events.

To change the Date & Time --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight DATE & TIME using ▲/▼ and press **EDIT** to change the setting.
3. Use ▲/▼ to change the month.
4. Press **MENU/SELECT** to advance to the day, using ▲/▼ to change.
5. Repeat the procedure for the year.
6. Press **MENU/SELECT** to change the time as indicated by HH:MM shown on the screen. Use ▲/▼ to set the hours and minutes using the **MENU/SELECT** key to move from one to the other.

   Note: the unit operates on a 24 hour clock.

7. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

Print/Log Rates

The printing and logging of pressure readings begins once the unit reaches normal operation, (status bar indicates NORMAL). There are two user-definable rates at which printing/logging occurs.

Normal Rate: (default is 15 min.)

- setting choices are 5, 15, 30 minutes or OFF.
- rate at which the highest & lowest pressure readings are printed and logged to memory during normal operation

- when set to OFF the unit will only log and print alarm readings

Alarm Rate: (default is 15 sec.)

- setting choices are 15, 30, 60 or 120 seconds.
- rate at which pressure readings are printed and logged to memory during an alarm condition

To change the Print/Log Rate --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight PRINT LOG RATES using ▲/▼ and press **EDIT** to change settings.
3. Use ▲/▼ to change the NORMAL RATE.
4. Press **MENU/SELECT** to move from NORMAL RATE to ALARM RATE and repeat step 3 to change the ALARM RATE setting.
5. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

To conserve paper and log space, the Alarm Print/Log rate will reduce to 15 minutes if the unit stays in an alarm condition for more than 10 minutes. The pressure monitoring rate is not affected. The Alarm Print/Log rate will return to its original setting at the beginning of the next alarm.

Alarm Condition

Once the containment pressure reaches the operating window, the unit will be in normal operation and the alarms will be armed. Then if containment pressure falls **outside** the operating window, the following will occur:

1. Internal buzzer and **AUX ALARM** output will be activated and will remain active until **AUDIBLE ALARM SILENCE** is pressed.
2. The status bar will change to >>ALARM<< and begin flashing.
3. Printer will indicate which alarm setpoint was exceeded. The print/log rate will increase to the preset alarm rate. Printouts will show the time followed by the current pressure reading.

When the containment pressure returns to within the normal operating window, the unit will log and print **NORMAL OP** with a time-stamp. The buzzer and **AUX ALARM** output will turn off. If the alarm was silenced without rearming, it should be rearmed.

Alarm Disable, Silence and Rearm

The buzzer symbol on the Monitor Screen indicates whether the audible alarm and **AUX ALARM** output are armed or disabled. The alarm is always armed when the unit is first turned on. The alarm silence function and **AUX ALARM** output are controlled by the **AUDIBLE ALARM SILENCE** key.

To disable or silence the buzzer--

Press **AUDIBLE ALARM SILENCE** once and the alarm will be disabled. This will be indicated on the screen with an **X** marking through the buzzer symbol. If the alarm was sounding at the time of disabling it will become silent.

To rearm a silenced buzzer --

Press **AUDIBLE ALARM SILENCE** and the buzzer symbol will be displayed without an **X** through it.

Armed   Disabled or Silenced

Audible Alarm Symbols

Inlet Pressure Response Rate

This setting determines how quickly the unit will react to pressure changes. Reduce this setting if you are using the unit in conditions where air pressure fluctuates rapidly and can cause false alarms, such as in high wind.

Response Rate: (default rate is Medium)

- rate choices are Slow, Medium and Fast
- in windy conditions, set to Slow
- if quick response to small pressure changes is needed, set to Fast

Section 4 continued. Page 18

Location of Controls

AC Power Cord

r Housing & Lid
(.. diagram showing how to properly load the thermal paper is located in Section 4. Only use Omniguard II/III thermal paper, available through your dealer.)

Paper Slot & Tear Bar

LCD Display - uses various screen types to provide job information. Monitor Screen (shown) shows current Pressure reading and indicators for Printer, Audible Alarm and Operational status.

MENU/SELECT - displays Main Menu or selects the highlighted item for review or editing.

▲ / ▼ - scroll through menu selections or change settings.

SAVE - saves updated unit settings to memory after editing, then exits to the Main Menu.

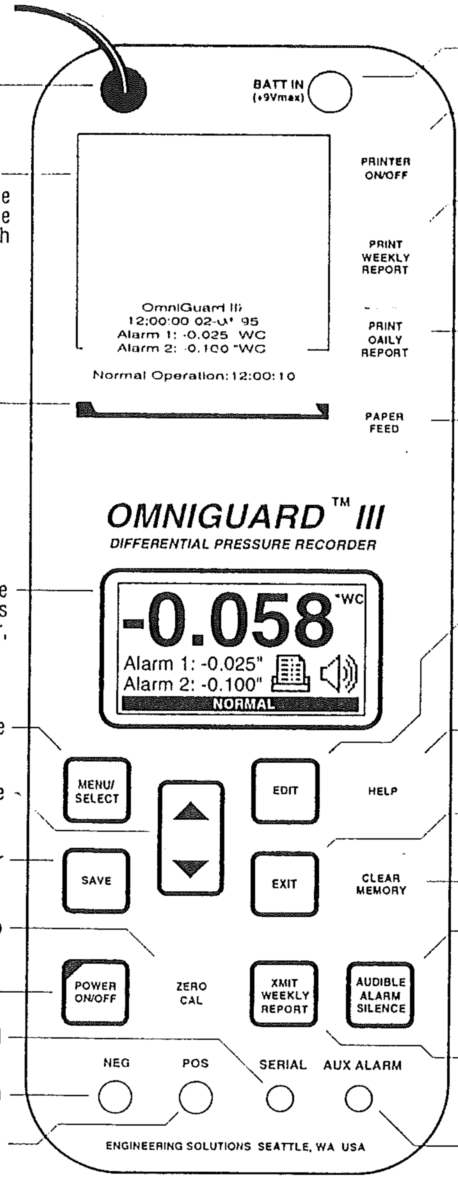
ZERO CAL - automatically calibrates the unit to zero, per the conditions at the job site.

ER ON/OFF - turns unit on and off.

SERIAL - connector for sending data to a personal computer.

NEG - inlet connector for pressure tubing from containment.

POS - inlet connector for sensing ambient pressure in the room.



BATT IN - connector to optional external battery pack.

PRINTER ON/OFF - turns the printer on and off. Printer status is indicated by the printer symbol at the Monitor Screen.

PRINT WEEKLY REPORT - press once to print a Weekly Report Summary. Press again to print the complete log of all data stored in memory with a sign-off header. **Cancel** printing by pressing any key.

PRINT DAILY REPORT - prints the current day's log with a sign-off header. **Cancel** printing by pressing any key.

PAPER FEED - advances the printer paper.

EDIT - press to allow changes to settings of the highlighted item from the Main Menu or while reviewing unit settings. Step through settings by pressing **MENU/SELECT**.

HELP - provides information about the highlighted item or displays Help Menu to select a topic for which more information is available.

EXIT - exits to previous screen; if editing, exits without saving any updates.

CLEAR MEMORY - clears entire log memory.

AUDIBLE ALARM SILENCE - silences the internal buzzer and **AUX ALARM** output when an Alarm Condition occurs. Audible Alarm status is indicated by the buzzer symbol at the Monitor Screen. Default is On (alarm will sound).

XMIT WEEKLY REPORT - sends all the data in memory to a personal computer through the **SERIAL** connector.

AUX ALARM - SPDT relay output supports optional remote alarm or telephone autodialer.

...ed from Page 15

...change the Response Rate --

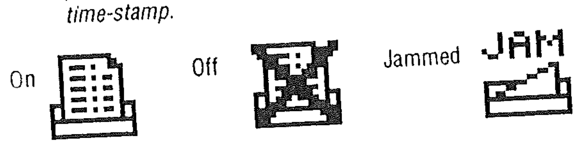
1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight **RESPONSE RATE** using ▲/▼ and press **EDIT** to change the setting.
3. Use ▲/▼ to change the setting.
4. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

...urning Printer On/Off

The **PRINTER ON/OFF** key controls the printer power. All pressure readings are logged to memory regardless of printer setting.

Note: If a printer error is detected, the printer will automatically turn off and a **JAM** *message will appear above the printer symbol. Clear the jam and use the* **PRINTER ON/OFF** *key to turn the printer back on. Paper jams are logged with a time-stamp.*



Printer Symbols

Printing Reports

The *Omniguard III* provides a printout of all recorded data, alarm messages and changes in operational settings. Daily, Weekly, Summary and Configuration reports can be printed at anytime.

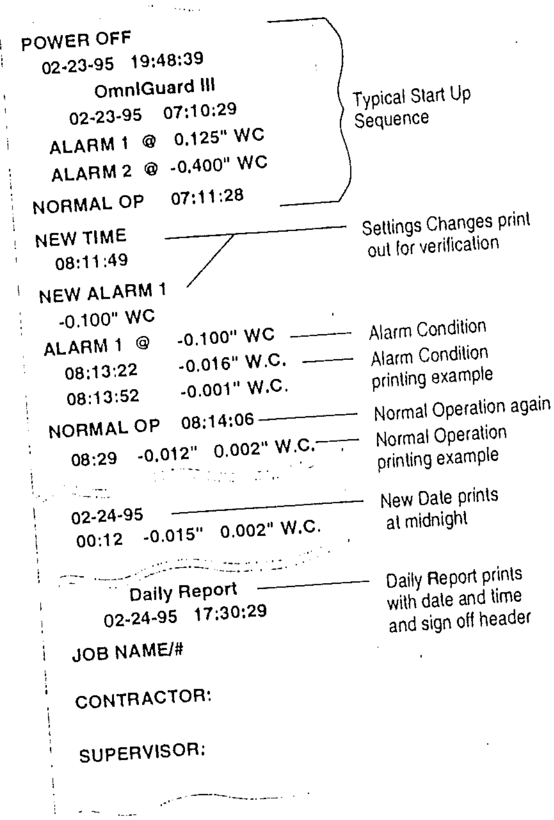
To print a Daily Report --

- Press **PRINT DAILY REPORT**. A daily report with a sign-off heading will be printed.

To print a Summary Report --

- Press **PRINT WEEKLY REPORT**. A summary of the week's activity will be printed.

Example of Typical Printout



To print a Weekly Report --

- Press **PRINT WEEKLY REPORT** and a Summary Report will print. When the Summary Report is completed press **PRINT WEEKLY REPORT** a second time for a detailed Weekly Report with a sign-off header. Everything in memory will be printed. This may contain more than one week's activity.

To print a Configuration Report --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight CONFIGURATION REPORT using ▲/▼ and press **MENU/SELECT**.
3. The Configuration Report will appear in its entirety on the screen for viewing. Press one of the **PRINT REPORT** keys and the Configuration Report will begin printing.

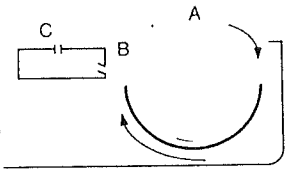
   or

   Press **EXIT** to return to the Main Menu without printing the Configuration Report.

Reports may be reprinted showing more than one day's activity by changing the **DATE** setting to the desired report date. Everything in memory from the new date forward will print when **PRINT DAILY REPORT** is pressed.

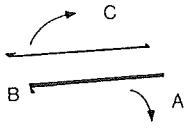
Printing a report does not cause any data to be erased from memory, only the **CLEAR MEMORY** *key will erase memory.* ***Cancel*** *report printing by pressing any key.*

Loading the Thermal Printer Paper



1. Cut the end of the paper to a tapered point.
2. Place the paper into the housing so the paper unrolls from the bottom.
3. Insert tapered point into slot marked **B**, feed through until tapered point can be pulled from the top at **C**.

Do not use the **PAPER FEED** *key to advance the paper.*



4. From **C**, gently pull until the tapered portion is completely exposed.
5. Replace lid onto the paper housing and secure with the thumbscrew.

Caution: Only *use Omniguard II/III thermal printer paper! Thermal paper prints on only* ***one*** *side, the side away from the paper roll. If the roll is installed incorrectly the printer will be able to advance the paper but unable to print on it.*

Display Contrast & Backlight

The contrast level and backlight setting on the LCD screen allows the user to adjust the display for optimal viewing in varied lighting conditions. The backlight automatically dims after 4 minutes to extend battery and backlight life. It can be reactivated by pressing any key.

Contrast: (default is 70%)
- range is 30% (min) to 100% (max)

Backlight: (default is ON)
- choices are ON or OFF

To change the Contrast or Backlight --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight DISPLAY from the Main Menu using ▲/▼ and press **EDIT** to change the settings.
3. Press **MENU/SELECT** to choose CONTRAST or BACKLIGHT and use ▲/▼ to change the settings for each.
4. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu without saving the updated settings.*

Transmitting A Report

The information logged in the unit's memory can be transferred to an IBM compatible PC for permanent storage. Reports transmitted to a PC can be reviewed and reprinted any number of times. The PC program also compiles a list of statistics about each report.

Before you can transmit a report to a PC, you must first purchase the PC Communication Kit. Detailed instructions for connection and operation of the transmit function are included with the kit.

To transmit a report --

1. Install the PC Communication program into your computer.
2. Plug the small end of the cable into the **SERIAL** connector of the unit.
3. Plug the large end of the cable into the serial port on your PC.
4. Run the program and follow the instructions shown on the computer screen.

Autodialing Feature

The **AUX ALARM** output can be used to activate a telephone autodialer through a special cable. The Aux Alarm Mode setting is used to set the device type that is attached to the **AUX ALARM** connector, either a remote alarm or an autodialer.

AUX MDDE: (default is Remote Alarm)

- choices are Remote Alarm, Autodial 1 min, Autodial 5 min or Autodial 10 min

To select the Autodialer mode --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight AUX ALARM MODE using ▲/▼ and press **EDIT** to change the settings.
3. Press ▲/▼ to change the setting to the desired time period.
4. Press **SAVE** to save your new setting and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

In an alarm condition, the **AUX ALARM** output will activate for the selected amount of time. After the time period has elapsed, the **AUX ALARM** output will automatically turn off (contacts opened). The output may also be turned off by pressing the **AUDIBLE ALARM SILENCE** key. The **AUX ALARM** output will only reset once the unit has returned to normal operation, this prevents the autodialer from continuously dialing during an alarm condition.

Passcode Protect

The passcode protect feature allows the site manager to setup a passcode that prevents unauthorized changes to the unit's settings. Once enabled, a four digit code must be entered to edit any setting. Settings may be viewed without the passcode.

Passcode Protect: (default is OFF)
Passcode: (default passcode is 0 0 0 0)

- passcode can be set to ON or OFF
- master passcode is 7 7 7 7

To set and enable the Passcode --

1. Select **MENU/SELECT** to view the Main Menu.
2. Highlight PASSCODE PROTECT from the Main Menu using ▲/▼ and press **EDIT** to change the setting.
3. Press **MENU/SELECT** to set the passcode digits.
4. Set each digit of the passcode using ▲/▼.
5. Press **MENU/SELECT** to move from one digit to the next.
6. Press **SAVE** to save the updated setting and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

Note: In the event that the passcode is lost or forgotten it can be reset and settings can be changed using the master passcode.

Pressure Units

The pressure units used by the *Omniguard III* to display and record pressure readings are selectable.

Pressure Units: (default is Inches WC)

- choices are Inches WC ("WC), Millimeters WC (mmWC) or Pascals (Pa)

To select the desired pressure units --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight PRESSURE UNITS by using ▲/▼ and press

EDIT to change the setting.

3. Use ▲/▼ to change the pressure units to the desired measurement.
4. Press **SAVE** to save the updated settings and return to the Main Menu.

Pressing the **EXIT** *key will return you to the Main Menu* ***without*** *saving the updated settings.*

Viewing the Log

A complete detailed log of all logged information can be viewed on the screen at any time during operation.

To view logged data --

1. Press **MENU/SELECT** to view the Main Menu.
2. Highlight VIEW LOG using ▲/▼ and press **MENU/SELECT** to view the complete log. A printed copy of the same information is available by pressing the **PRINT WEEKLY REPORT** key twice (see Section 4: Printing Reports, Page 18).

Using Help

To access Help information on a highlighted topic --

- Press **HELP**. Detailed information about the unit's current status or the highlighted function will be displayed.

To access the Help Menu --

1. Press **HELP** twice.
2. Highlight the desired topic using ▲/▼.
3. Press **HELP** to view the information available for that topic.

Section 6: Options

- **Remote Auxiliary Alarm**

The remote alarm features a high-intensity strobe light with 95db audible alarm alerts workers and bystanders to hazardous condition. The remote alarm plugs into the **AUX ALARM** port and includes a 25' cable to allow alarm placement within the containment area. Alarm is activated when an alarm condition occurs.

- **Autodialer / Cable**

Plugs into **AUX ALARM** port and provides off-site alert that an alarm condition has occurred at the job site. Calls up to 4 preprogrammed telephone numbers and plays a prerecorded message. Works with 20-digit phone numbers and pagers. Easy to set up and use. Battery backed memory to retain message and phone numbers in the event of a power outage. Includes 6' cable to connect to the *Omniguard III* unit and a standard RJ11 phone jack.

- **PC Communication Kit**

Transmits recorded job site logs to an IBM compatible PC for permanent storage, statistical analysis and summary report generation. Includes 6' cable and application software (DOS and Windows versions). Extremely easy to use.

- **Battery Pack Upgrade**

For use when AC power is unavailable or during intermittent power conditions. Provides up to 48 hours of operation when printer is turned off, 12-24 hours when printer is turned on. Recharges in 24 to 36 hours when plugged into 115VAC. Includes carrying case, charger and cable to link to Omniguard. Requires modifications to Omniguard to support external battery pack.

- **NIST Traceable Certification**

When project regulations require the Omniguard III to be certified for the NIST. Please contact your dealer to find out how this can be done.

- **Optional Pressure Ranges**

If the *Omniguard III* does not operate over the pressure range which is applicable to your job specifications, call Engineering Solutions to order a unit with the custom range or have your unit modified to meet your requirements.

- **220VAC Power Supply Range**

Designed for use where 220-240VAC 50Hz power is normally available. Choice of plug styles. Requires modifications to the *Omniguard III* unit.

Appendix A: Troubleshooting

If you experience problems with your *Omniguard III*, use this section to try to solve the problem. If you are unable to solve the problem, consult with your dealer or call Engineering Solutions at (206) 241-9395 (8:00 a.m.-12:00 noon, 12:30-4:30 p.m. Pacific Time) and ask for Technical Support.

Problem: The unit does not display the proper pressure.

Remedy: Check to see that the tubing is connected properly to the **NEG** inlet port.

Remedy: Make sure that the tubing does not have a kink or a sharp bend.

Remedy: Make sure that the tubing connection into the containment area is properly placed and secured as described in Section 4: Work Area Setup, Page 9.

Remedy: Check the unit Configuration Report (see Section 4: Printing Reports, Page 18) to determine if the Zero value has been incorrectly calibrated. If the value is not zero then recalibrate the zero point (see Section 4: Zero Calibration, Page 11).

Problem: Excessive momentary alarms.

Remedy: Adjust alarm setpoints to allow for normal air pressure fluctuations caused by entries into work area or other equipment. Make sure that you are within the minimum negative air pressure requirements.

Remedy: If you suspect that wind may be causing rapid pressure fluctuations, reduce the setting for Response Rate (see Section 4: Detailed Operation, Page 9).

Problem: Printer indicates an alarm but audible alarm was not activated.

Remedy: Confirm that the Audible Alarm is on. The buzzer icon should be shown, in the right corner of the display, without an **X** through it (see Section 4: Alarm Disable, Silence and Reset, Page 15).

Problem: Printer is not working properly or a paper jam occurs.

Remedy: The printer may be turned off. Turn it on using the **PRINTER ON/OFF** key.

Remedy: Thermal paper prints on only **one** side, the side away from the paper roll. If installed incorrectly, the printer will be able to advance the paper but unable to print on it. Make sure that the paper is fed properly as described in Section 4: Loading the Thermal Printer Paper, Page 20.

Remedy: Paper jams can occur if the paper is allowed to fall back into the printer head after tearing off a report. If a paper jam occurs, the unit will automatically shut the printer off to prevent damage. The printer symbol will be displayed with a JAM message (see Section 4: Turning Printer On/Off, Page 18). After the paper jam is cleared, use the **PRINTER ON/OFF** key to turn the printer back on.

Note: Do not apply oil or grease of any kind to the printer as this will attract dirt and debris and could cause permanent damage to the printer mechanism.

Problem: OMNIGUARD III unit does not enter normal operation at power on, and does not print.

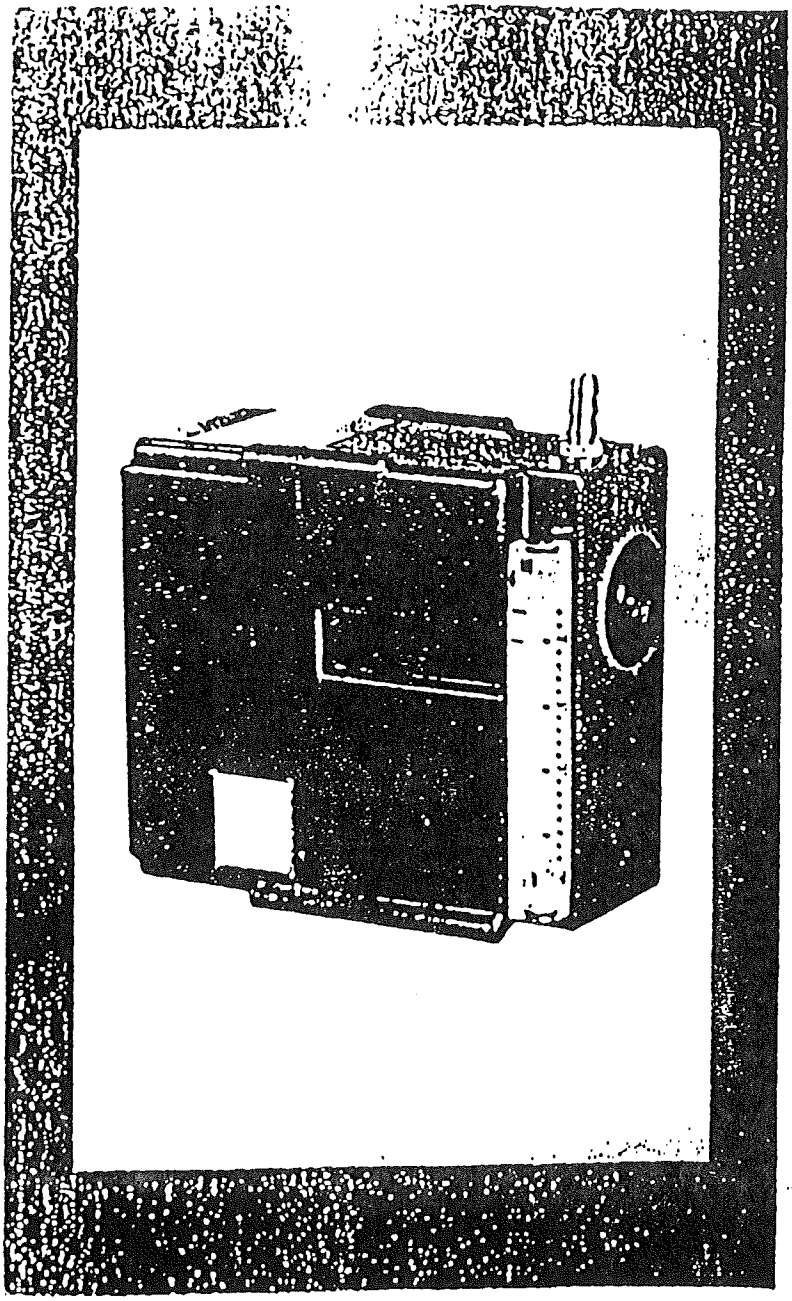
Remedy: For normal operation, the monitored pressure **must** be between the Alarm 1 and Alarm 2 setpoints. At power on, the containment pressure will not likely be within the alarm setpoints, and the unit will not print or log the pressure readings. The unit will begin printing and logging the pressure readings only after it senses containment pressure has reached the normal operating window.

Problem: The unit displays Initializing system... followed by The system has been returned to factory defaults... after the power has been off.

Remedy: The internal battery is discharged. Leave the unit plugged in for 24 hours to recharge the battery. It will be necessary to reset any of the unit settings you may have changed. The internal battery will last for 30+ days without recharging. It recharges automatically any time the unit is plugged in.

SENSIDYNE SUPER SAMPLER

BDX 74 PUMP



SENSIDYNE

1234[illegible] EY ROAD, SUITE E
LARGO, FLORIDA 33543

TABLE 1. PHYSICAL CHARACTERISTICS OF BDX 74 AND OPTIONAL EQUIPMENT.

Item	Part Number	Size (overall)	Weight
Sensidyne Super Sampler BDX 74 Pump	7010772-1	Wide: 4 in. (10.2 cm) Deep: 2-3/8 in. (6.1 cm) High: 4-1/2 in. (11.5 cm)	34 oz. (964 g)
Battery Pack 8.4 Vdc, 1.5 Ah	7010780-1		
*Battery Charger (Single unit 115V)	3529933-5		
*Battery Charger (Five unit 115V)	3529933-7		

*Optional Equipment. Battery chargers are NOT for use in explosive atmosphere.

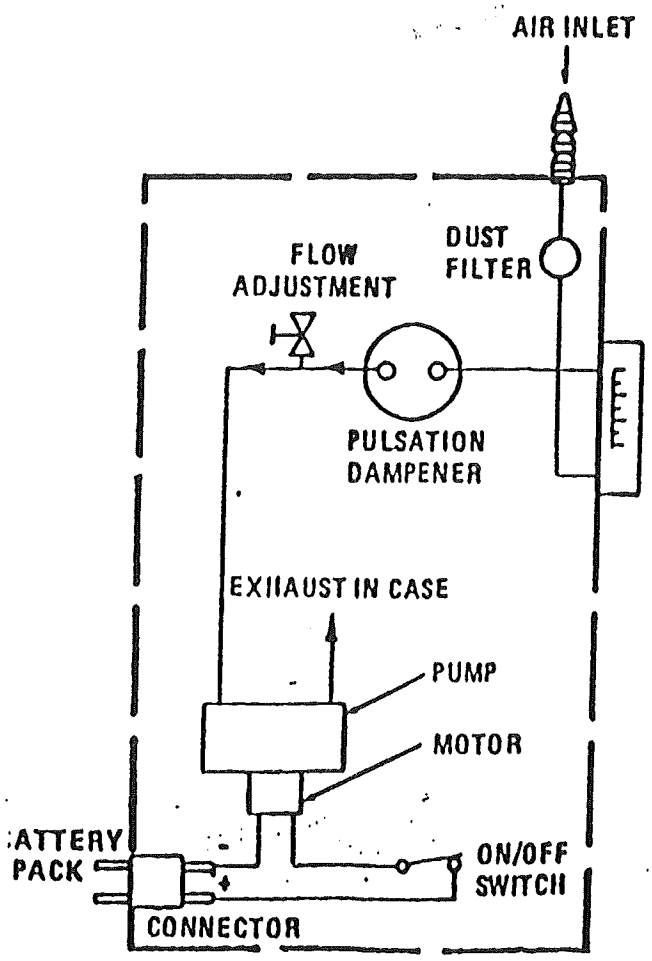


FIGURE 2. BDX 74 FLOW DIAGRAM.

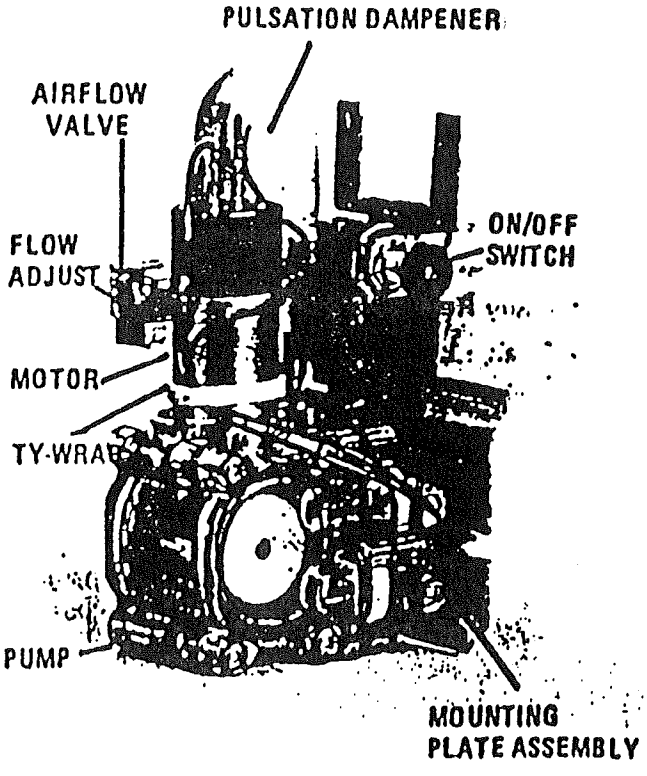


FIGURE 3. DOUBLE DIAPHRAGM PUMP ASSEMBLY

SECTION I

General Information

1-1. INTRODUCTION. The Sensidyne Heavy Duty Super Sampler BDX 74 Pump provides an intrinsically safe automatic sampling source for a wide variety of applications. The BDX 74 is capable of delivering 4 liters per minute of sample air for periods exceeding 8 hours with a nominal head restriction of up to 20 inches of water. Primary applications include sampling for asbestos emissions, dusts, fumes and mists.

The BDX 74 is designed for maximum utility, simplicity of operation, long service life, and extreme ease of maintenance and repair. Pertinent features of this system are:

- Long Life, Rechargeable/Replaceable Battery Pack.
- Battery Pack Rechargeable, when connected to or disconnected from BDX 74.
- Extra Strong Plastic (ABS) Molded Case.
- Easily Readable Flowmeter.
- Small, Long-Life, Field Repairable Double Diaphragm Pump.

1-2. DESCRIPTION. The BDX 74, Figure 1, comprises a case, housing a double diaphragm pump assembly, dust filter, flowmeter, a flow regulator/pulsation dampener assembly, and a rechargeable battery pack. The unit is operated by a push-on/push-off switch located on the side of the case.

A sample air inlet located on the top of the case will accept ¼-inch, inside diameter flexible sampler hose. See Figure 2. The sample air inlet is connected internally through a dust filter to the bottom of the flowmeter. The top outlet on the flowmeter is connected to the flow regulator/pulsation dampener assembly. The outlet of the flow adjustment assembly is connected to the inlet of the double diaphragm pump. Air is exhausted to the atmosphere through the charging jack on the battery pack.

The battery charger will restore the battery pack to a full capacity in 16 hours (overnight) or 64 hours (over a weekend).

1-3. CHARACTERISTICS.

a. Physical Characteristics. See Table 1 on page 2.

b. Operating Characteristics.

Flow Rate: 1.5 to 4.5 liters per minute (LPM).

Calibration: Factory calibrated at 4 LPM with an inlet resistance of 7 inches of water. (The flowmeter has an arbitrary scale of 1 to 4.5 for easy reference.)

Operating Duration: 8 hours at 4 LPM with an inlet resistance of up to 20 inches of water at 70° F (21°C).

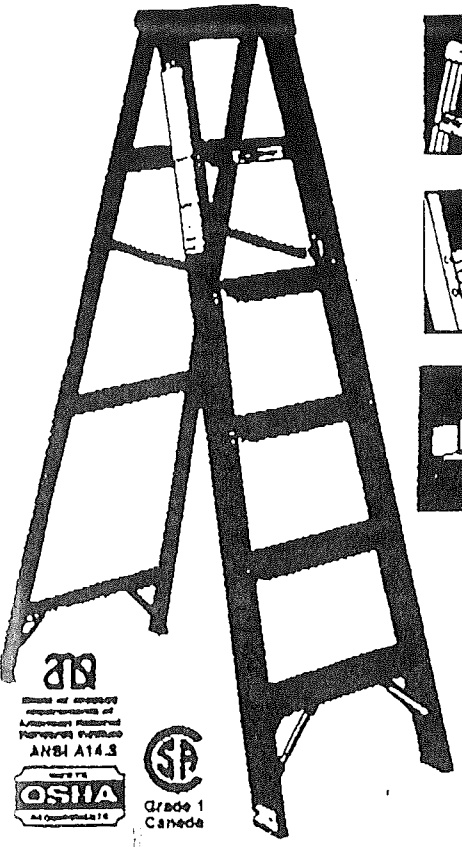
Flow Accuracy: Within 0.2 LPM (±5%) between 3 and 10 inches of water, measured across collecting media at 4 LPM.

Flow Rate Consistency: Within ±0.2 liter (±5%) of setting over an 8-hour period with no more than two readjustments when operating at 4 LPM (see operating instructions).

Operating Temperature: 0°F to +104°F (−18°C to +40°C).

FS1500 SERIES

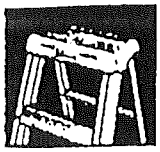
contractors and industry.



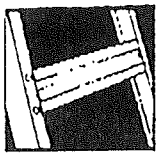
ANSI A14.5

OSHA

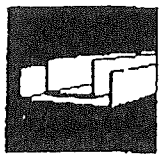
Grade 1 Canada



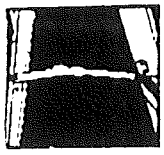
Molded Top With Handyman's Tool Slots
Rugged, nonconductive structural molded top is extremely strong and durable. Molded-in slots help keep tools close at hand. Paint tray slots, paint can hook, ruler.



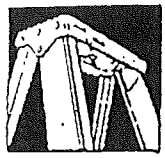
Wide Back Braces
Vertically mounted U-shaped back braces provide maximum stiffness and discourage unsafe climbing.



Full Channel Fiberglass Rail
Nonconductive front and back rail are full channel design with polyester veil to provide years of service without fiber prominence or blooming.



Inside Spreader Braces
Spreader braces located inside of fiberglass rails help protect braces from getting hooked or abused in transit. Heavy duty plated steel with extra heavy duty mounting brackets.



Reinforcement Plates
Reinforcement plates at critical wear points to increase life and durability. Plates on all legs under molded top and also at spreader braces.

Model	Size	Step Size	Bottom Width	Approx. Spread	Approx. Weight	Approx. Cubes
FS1504	4'	3"	18 7/8"	28"	12	3.18
FS1505	5'	3"	20 3/8"	34"	16	4.27
FS1506	6'	3"	21 7/8"	40"	19	5.49
FS1508	8'	3"	24 7/8"	52"	25	8.29

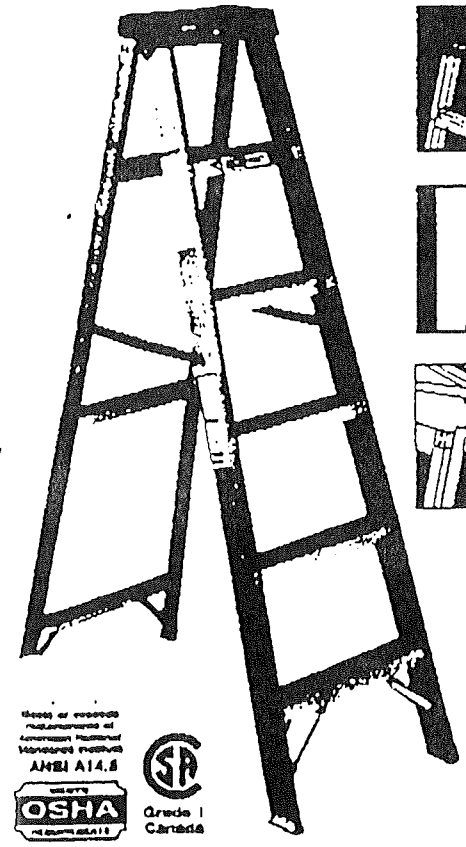
See page 29 for optional field-mount pail shelf.

Louisville

NEER STEP LADDER
I. 250 lb. Rated
FS2000 SERIES

NEW!
Full Channel Back Rails
Double Riveted Steps

A heavy duty, 250 lb. rated step ladder for light and general industrial use. Built to last. Nonconductive fiberglass side rails with polyester veil to provide years of service without fiber prominence or blooming.

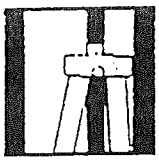


ANSI A14.5

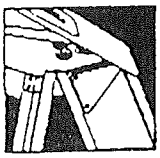
OSHA

Grade I Canada

Molded Top With Handyman's Tool Slots
Rugged, nonconductive structural molded top is extremely strong and durable. Molded-in slots help keep tools close at hand. Paint tray slots, paint can hook, ruler.

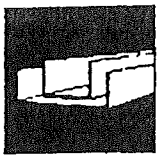


Pinch Resistant Spreader Braces
Heavy duty plated steel spreader braces with double rivet hinge to protect user from pinched fingers.

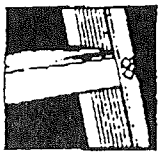


Reinforcement Plates
Reinforcement plates under molded top on both front and back legs and also at spreader braces. These plates increase life and durability by strengthening critical wear points.

Optional Molded Pail Shelf
Self-closing, nonconductive pail shelf available as field mount option. Non-skid surface and outer retaining edge provide additional molded-in features.



Full Channel Fiberglass Rail
Nonconductive front and back rail are full channel design with polyester veil to provide years of service without fiber prominence or blooming.



Double-Rivet Step Construction
Each step secured with six, large headed, semi-tubular steel rivets for maximum strength. Semi-tubular steel rivets have 30% greater shear strength than solid aluminum rivets.

Model	Size	Step Size	Bottom Width	Approx. Spread	Approx. Weight	Approx. Cubes
FS2004	4'	3"	18 7/8"	28"	11	3.18
FS2005	5'	3"	20 3/8"	34"	14	4.27
FS2006	6'	3"	21 7/8"	40"	18	5.49
FS2008	8'	3"	24 7/8"	52"	22	8.29

See page 29 for optional field-mount pail shelf.

Louisville

-72-

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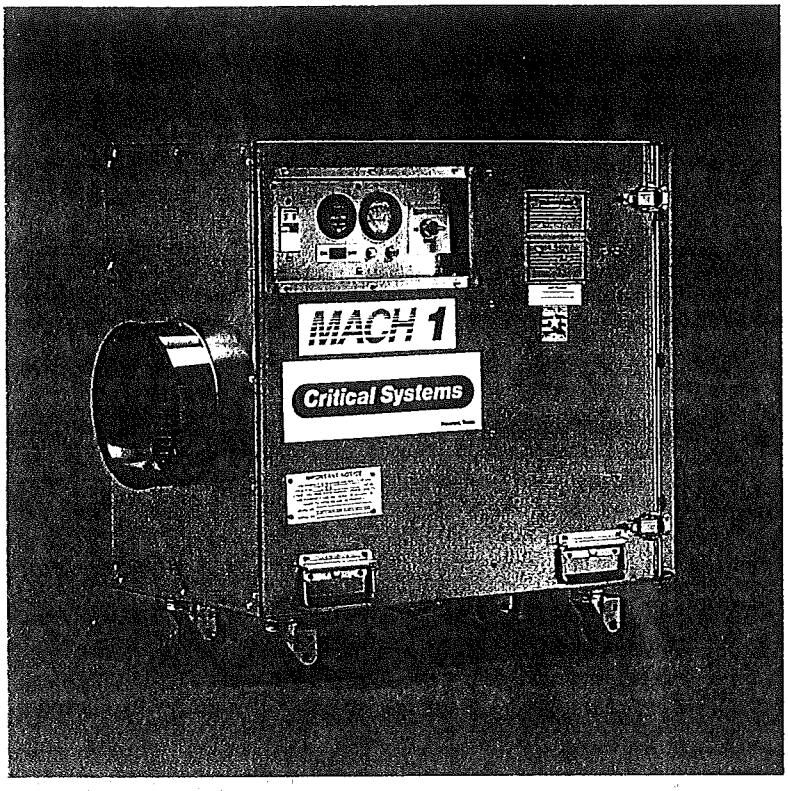

MACH I

NEGATIVE PRESSURE SYSTEM

FEATURES :
*HEPA Fail Safe Switch
*Four Easy Lift Handles
*Cumulative Hour Meter
*Static Pressure Gauge
*Ground Fault Interrupter Protected
*Speed Selector Switch
*Illuminated On / Off Switch
*10 " Dia. Discharge
*Intake Adaptor Available
*18 Gauge Stainless Steel Construction

OPTIONAL ALARM SYSTEM
*Normal (Run) - Light
*High Pressure (Filter Loading) -Audible & Visual Warning
*Low Pressure (Blocked Discharge,Filter Rupture, & Shutdown) - Audible & Visual Warning

SPECIFICATIONS :
*Three Speeds : 500 CFM 750 CFM 900 CFM
*Dimensions : 30" L x 32" H x 18" W
*Weight : 140 lbs.
*Motor : 1 / 4 Hp - Thermally Protected
*Power : 110 / 115 Volts / 60 Hz
*Full Load Amps : 3 Amps
*Circuit Protection : 5 Amps
*Filters : 12" x 24" x 1" Primary
12" x 24" x 2" Secondary
12" x 24" x 11 1/2" HEPA

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MACH 1
NEGATIVE PRESSURE SYSTEM

SPECIFICATIONS:

Body:	18 gauge Stainless Steel
Air Speed Control:	3 Speed High - 900 cfm Med - 750 cfm Low - 500 cfm
Dimensions:	32" H x 18" W x 30" L
Weight:	140 lbs. with Filters
Motor:	1/4 Hp, thermally protected
Input Power:	110/115 volt, 15 amp, 60 Hz
Full Load Amps:	2.7 amps
Circuit Protection:	Control Panel Mounted 5 amp circuit breaker
Filters:	12 x 24 x 1" Primary 12 x 24 x 2" Secondary 12 x 24 x 11-1/2" HEPA

FEATURES:

GROUND FAULT INTERRUPTER PROTECTED
HEPA Fail Safe Switch
Cumulative Hour Meter
Helic Pressure Gauge
Speed Selector Switch
Illuminated On/Off Switch
Four Easy-Lift Handles
3" Swivel Casters
10" 0 Discharge Flange

Intake Adapter Available.

OPTIONAL CONTROL PANEL

Normal (run) Light
High Pressure (filter loading) Warning Light and Horn
Blocked Discharge/HEPA Rupture Shutdown Light and Horn

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CERTIFICATION OF COMPLIANCE
MACH 1 NEGATIVE PRESSURE SYSTEM

WE CERTIFY THAT THE MACH 1 NEGATIVE PRESSURE SYSTEM IS BUILT TO COMPLY WITH THE ANSI Z9.2-1979 STANDARDS. FURTHER, THE HEPA FILTERS SUPPLIED BY OUR AUTHORIZED DISTRIBUTORS HAVE BEEN GUARANTEED BY THE RESPECTIVE MANUFACTURER TO BE CAPABLE OF 99.97% FILTRATION OF ALL PARTICLES .3 MICRON OR LARGER.

THE NEGATIVE PRESSURE SYSTEM ALSO IS IN ACCORDANCE WITH THE EPA GUIDANCE DOCUMENT, EPA 560/5-85-024, "GUIDANCE FOR FRIABLE ASBESTOS CONTAINING MATERIALS IN BUILDINGS" APPENDIX J.

Ken Kondo, Vice President
Critical Engineering

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March 12, 1990

MACH 1 DOMESTIC
SPARE PARTS

ITEM #	QTY	DESCRIPTION	LIST PRICE
320030	4	3 SWIVEL CASTER	4.35
B10310	1	12 X 24 X 11.5 HEPA 99.97%	126.53
B10303	1	12 X 24 X 2 PLEAT	6.24
B10300	1	12 X 24 X 1 PAD	.55
440081	1	SNAP ACTION SWITCH	7.57
560500	1	BLOWER HOUSING W/WHEEL	31.47
560502	2	HANGER	1.71
500201	1	CAPACITOR 10MFD	6.59
500001	1	MOTOR 1/4HP, 110/60	100.98
420101	1	HOURMETER 110V 60HZ	17.27
460050	1	GROUND FAULT INT. 110V	24.16
440010	1	ON/OFF ILL. ROCKER SWITCH	1.76
420201	1	MINIHELIC GAUGE	26.94
460004	1	5 AMP CIRCUIT BREAKER	5.92
440020	1	3 POSITION SELECTOR SWITCH	36.63

Critical Systems

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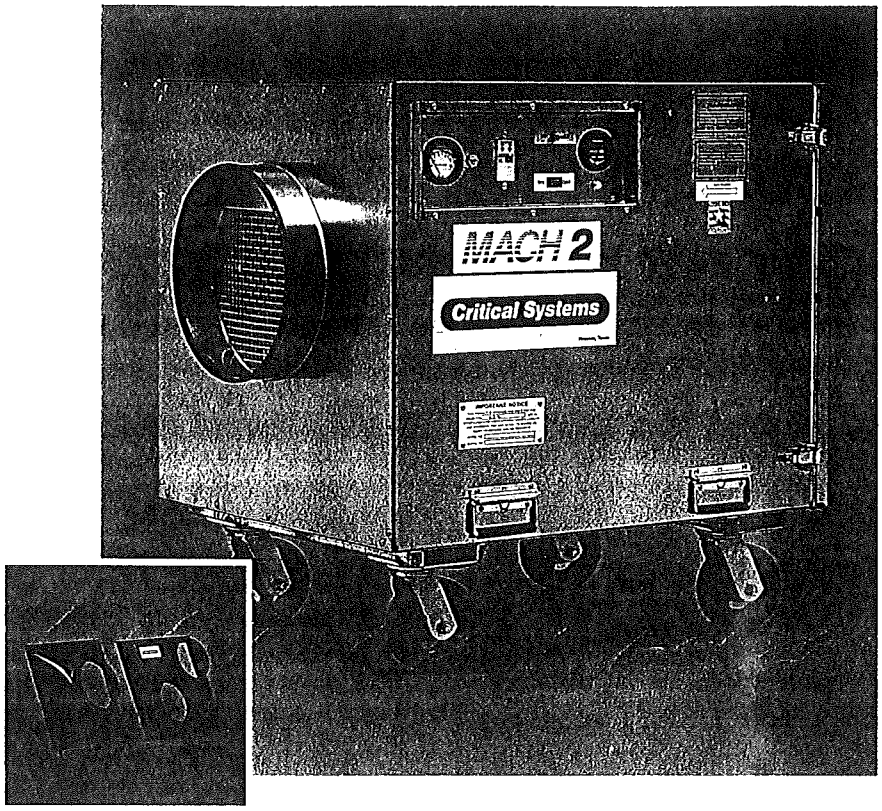

MACH 2

NEGATIVE PRESSURE SYSTEM

FEATURES :
*HEPA Fail Safe Switch
*Four Easy Lift Handles
*Cumulative Hour Meter
*Static Pressure Gauge
*Ground Fault Interrupter Protected
*Speed Selector Switch
*Illuminated On / Off Switch
*14" Dia. Discharge
*6" Heavy Duty Swivel Casters
*Intake Adaptor Available
*18 Gauge Stainless Steel Construction

OPTIONAL ALARM SYSTEM
*Normal (Run) - Light
*High Pressure (Filter Loading) -Audible & Visual Warning
*Low Pressure (Blocked Discharge,Filter Rupture & Shutdown) - Audible & Visual Warning

SPECIFICATIONS :
*Two Speeds : 1175 CFM 1950 CFM
*Dimensions : 36" L x 37.5" H x 29" W
*Weight : 225 lbs.
*Motor : 1 Hp - Thermally Protected
*Power : 110 / 115 Volts / 60 Hz
*Full Load Amps :12.3 Amps
*Circuit Protection: 15 Amps
*Filters : 24" x 24" x 1" Primary
24" x 24" x 2" Secondary
24" x 24" x 11 1/2" HEPA

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A Division of Critical Industries, Inc.

MACH 2
NEGATIVE PRESSURE SYSTEM

SPECIFICATIONS:

Body:	18 gauge Stainless Steel
Air Speed Control:	2 Speed High - 1950 cfm Low - 1175 cfm
Dimensions:	37.5" H x 29" W x 36" L
Weight:	225 lbs. with filters
Motor:	1 Hp, thermally protected
Input Power:	110/115 volt, 15 amp, 60 Hz
Full Load Amps:	12.3 amps
Circuit Protection:	Control Panel Mounted 15 amp circuit breaker
Filters:	24 x 24 x 1" Primary 24 x 24 x 2" Secondary 24 x 24 x 11-1/2" HEPA

FEATURES:

GROUND FAULT INTERRUPTER PROTECTED
HEPA Fail Safe Switch
Cumulative Hour Meter
Helic Pressure Gauge
Speed Selector Switch
Illuminated On/Off Switch
Four Easy-Lift Handles
6" Heavy-duty Swivel Casters
14" 0 Discharge Flange

Single and Dual Intake Adapters Available.

OPTIONAL CONTROL PANEL

Normal (run) Light
High Pressure (filter loading) Warning Light and Horn
Blocked Discharge/HEPA Rupture Shutdown Light and Horn

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March 12, 1990

MACH 2 DOMESTIC
SPARE PARTS

ITEM #	QTY	DESCRIPTION	LIST PRICE
440081	1	SNAP ACTION SWITCH	7.57
320060	2	6 SWIVEL CASTER	13.84
B10311	1	24 X 24 X 11.5 HEPA 99.97%	173.47
B10304	1	24 X 24 X 2 PLEAT	7.27
B10301	1	24 X 24 X 1 PAD	.71
560510	1	BLOWER W/WHEEL	57.45
560512	2	HANGER	1.92
500203	1	CAPACITOR 20MFD	12.06
500046	1	MOTOR 1HP 110/60	118.84
420101	1	HOURMETER 110V 60HZ	17.27
440001	1	TOGGLE SWITCH SPDT ON/ON	2.67
440010	1	ON/OFF ILL. ROCKER SWITCH	1.76
420201	1	MINIHELIC GAUGE	36.94
460002	1	15 AMP CIRCUIT BREAKER	5.63
460050	1	GROUND FAULT INT. 110V	24.16

Critical Systems™
A Division of Critical Industries, Inc.

CERTIFICATION OF COMPLIANCE

MACH 2 NEGATIVE PRESSURE SYSTEM

WE CERTIFY THAT THE MACH 2 NEGATIVE PRESSURE SYSTEM IS BUILT TO COMPLY WITH THE ANSI Z9.2-1979 STANDARDS. FURTHER, THE HEPA FILTERS SUPPLIED BY OUR AUTHORIZED DISTRIBUTORS HAVE BEEN GUARANTEED BY THE RESPECTIVE MANUFACTURER TO BE CAPABLE OF 99.97% FILTRATION OF ALL PARTICLES .3 MICRON OR LARGER.

Ken Kondo, Vice President
Critical Engineering

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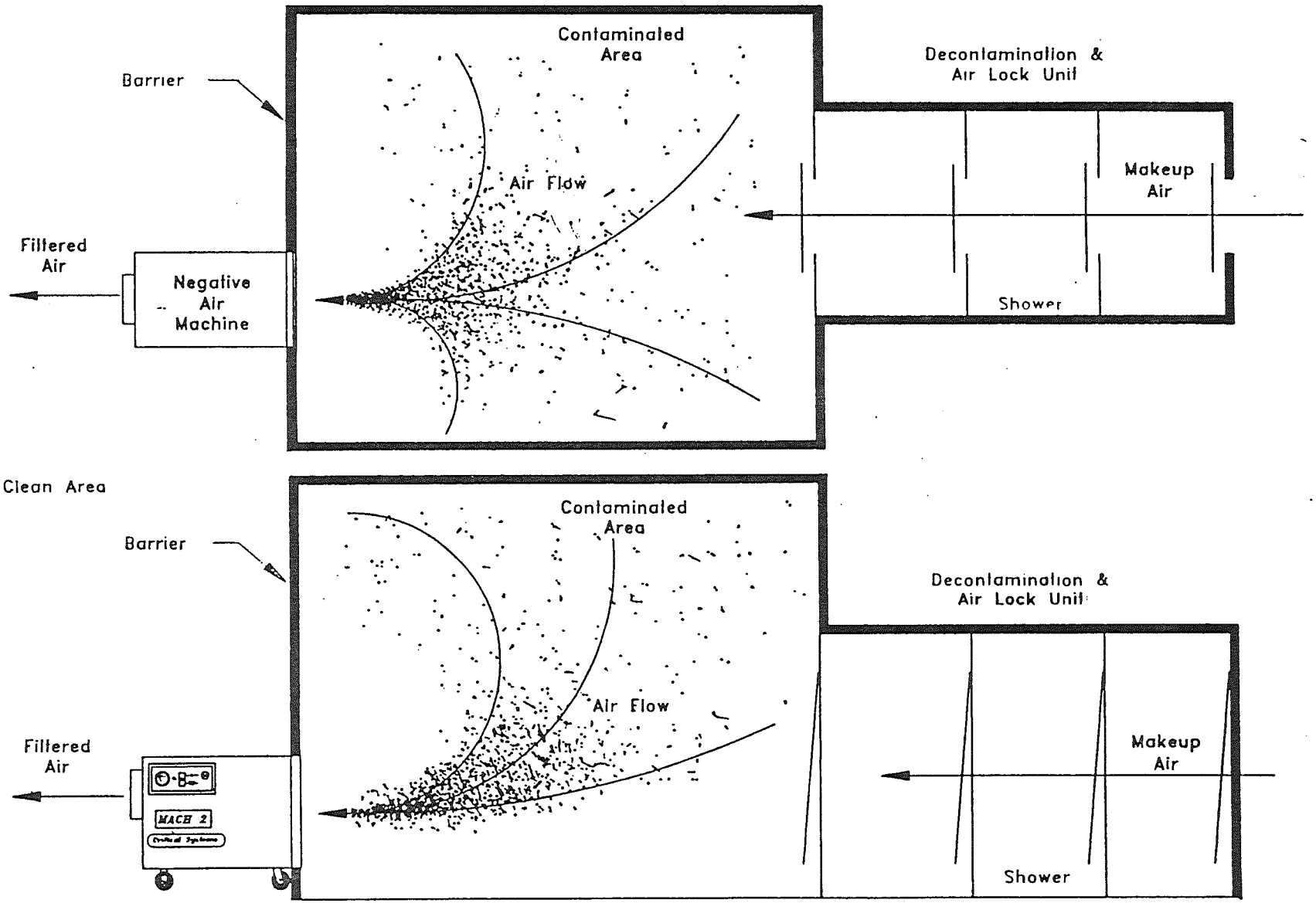
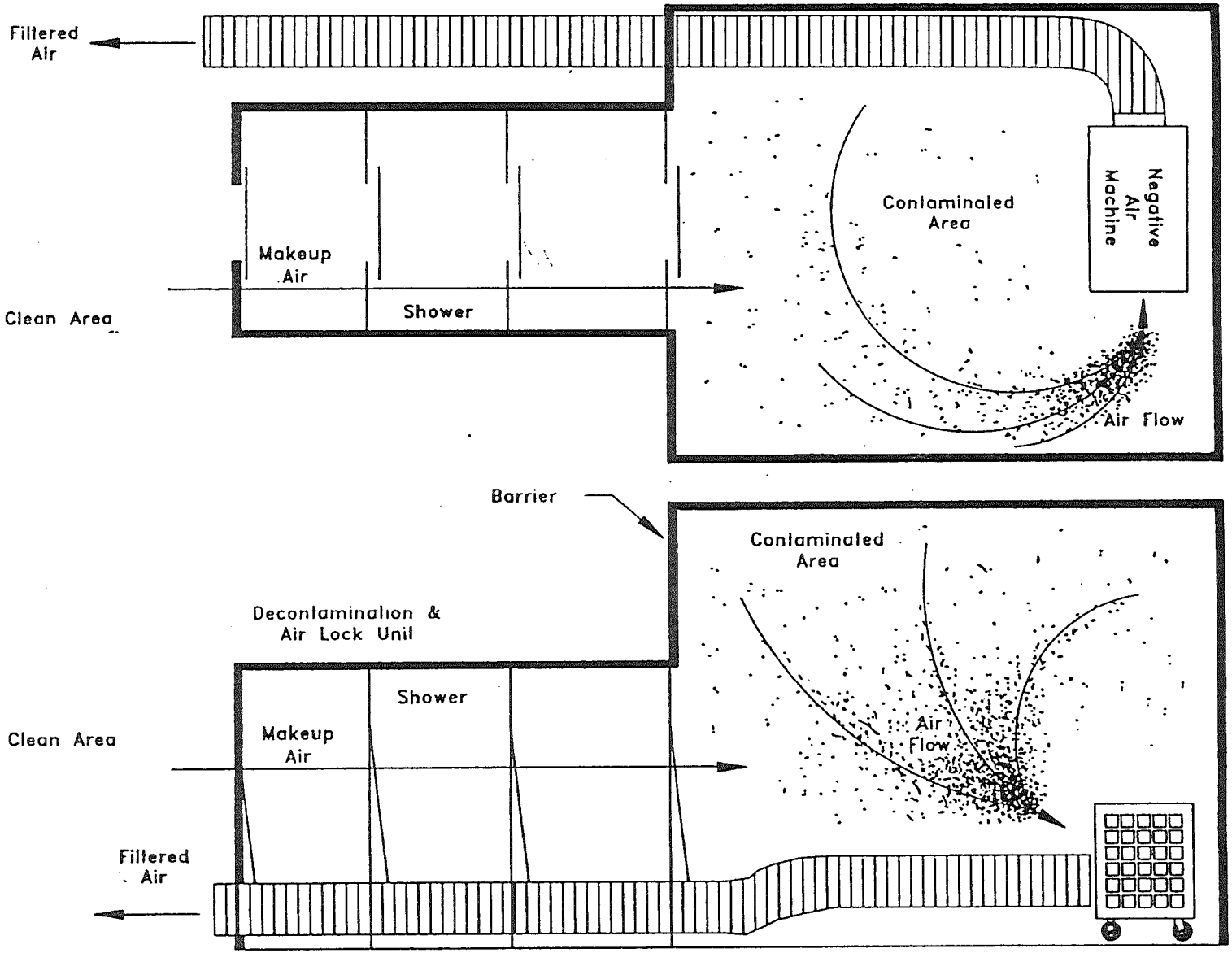
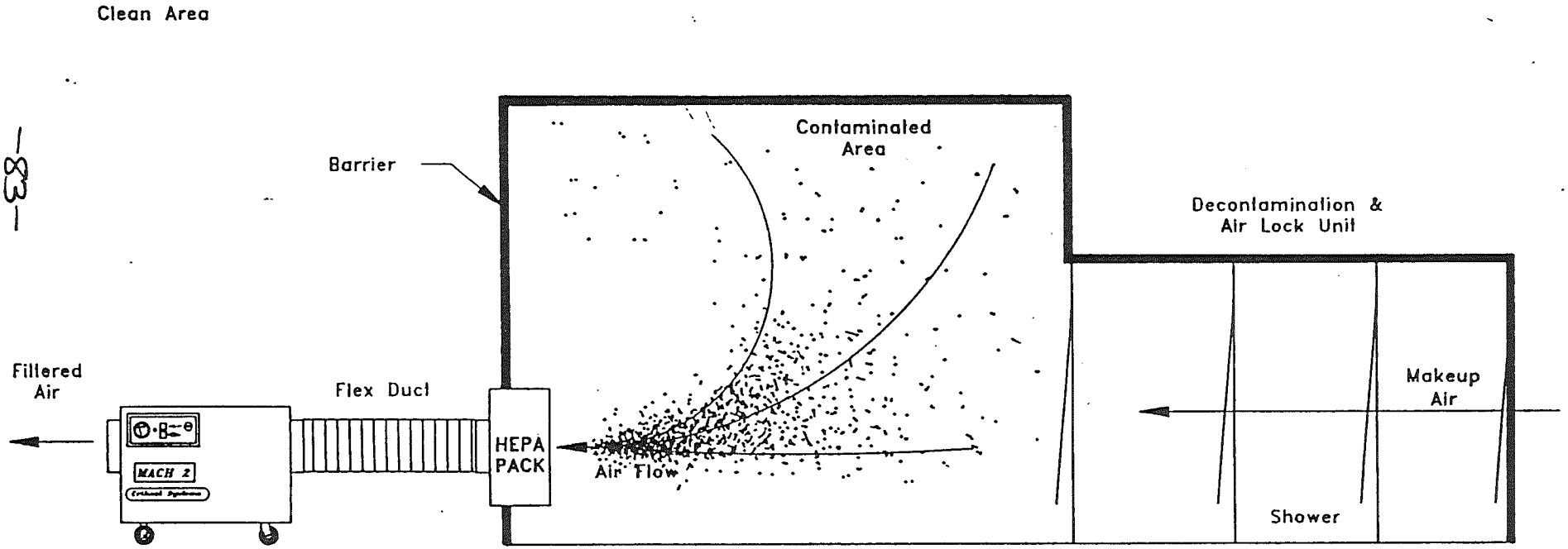
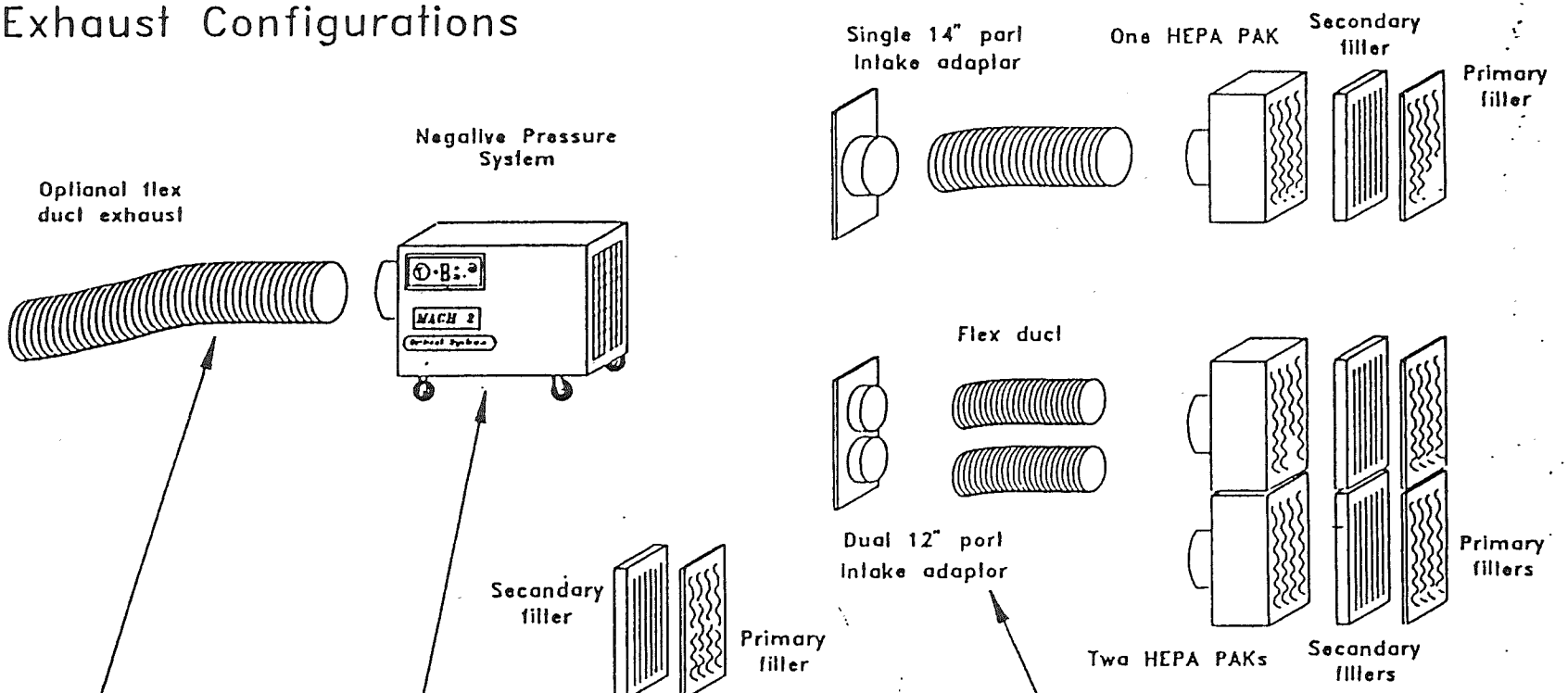

Contaminated Area
Barrier
Decontamination & Air Lock Unit
Air Flow
Makeup Air
Filtered Air
Negative Air Machine
Shower
Clean Area
Contaminated Area
Barrier
Decontamination & Air Lock Unit
Air Flow
Filtered Air
MACH 2
Makeup Air
Shower


Filtered Air
Makeup Air
Clean Area
Shower
Contaminaled Area
Negative Air Machine
Air Flow
Barrier
Contaminaled Area
Deconlaminalion & Air Lock Unil
Shower
Clean Area
Makeup Air
Air Flow
Filtered Air


Clean Area
Barrier
Contaminated Area
Decontamination & Air Lock Unit
Filtered Air
Flex Duct
HEPA PACK
Air Flow
Makeup Air
Shower
MACH 2

Mach 2
Optional Intake And Exhaust Configurations



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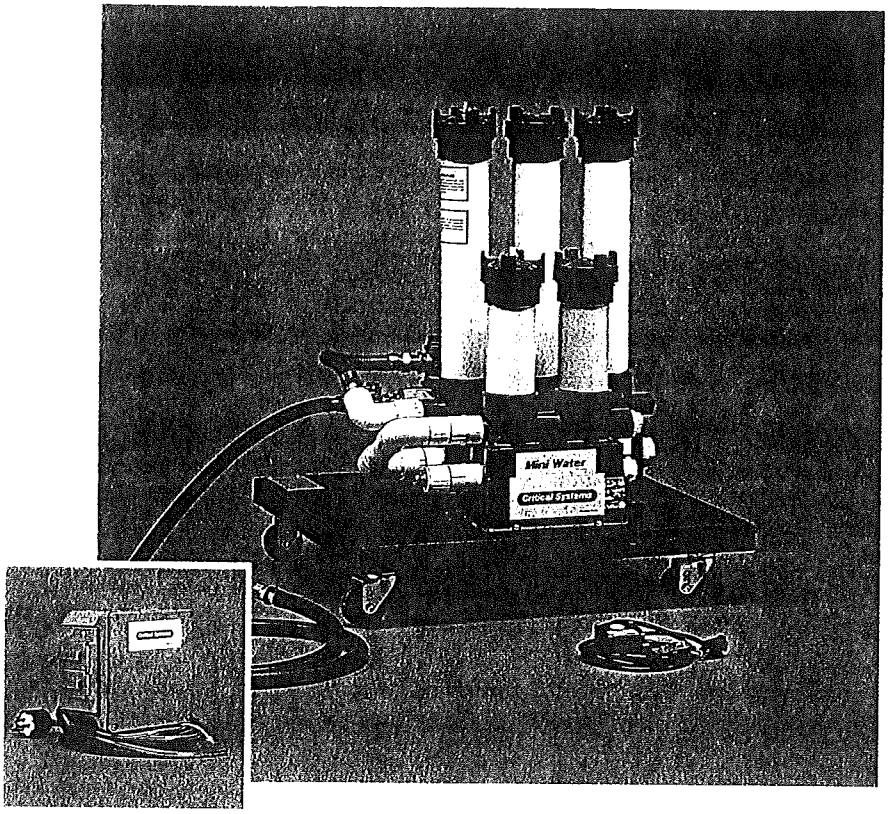


MINI WATER

WATER FILTRATION SYSTEM

FEATURES :
*High Quality Water Filtration
*Impervious to Rust and Corrosion
*Level Control Engages at 6.75" Water Level and Disengages at 1.5"
*Mounted on Impact Resistant ABS Platform with 3" Casters
*Two Stage Filtration :
1st stage : 20 Micron
2nd stage : 5 Micron

SPECIFICATIONS :
*Platform : 30"L x 30"W
*Height : 38"
*Weight : 55 lbs.Dry
*Motor : 1/3 Hp - Thermally Protected
*Power : 110 Volts / 60 Hz
*Full Load Amps : 6 Amps
*Flow Capacity : 17 GPM @ 8.5 PSI
*Water Connections : Garden Hose Thread

ACTUATOR

FEATURES :
*Simple Plug-in Alternate Level Control Device
*Readily Adapts Mini-Water
*Optional Level Control
*Actuator Engages at 2.5" and Disengages at 1" of Water Level (Adjustable)

SPECIFICATIONS :
*Dimensions : 8" L x 8" H x 4" W
*Weight : 2 lbs.
*Power Supply : 110 Volts / 60 Hz

Critical Systems™
A Division of Critical Industries, Inc.

MINI WATER FILTRATION SYSTEM

SPECIFICATION:

Dimensions:	30" L x 30" W x 38" H
Weight:	55 lbs. Dry
Power Supply:	110 VAC/60 Hz
Gauges:	Pressure gauges located on each stage indicate filter loading
Level Control: (standard)	Electric "ON" @6.75" "OFF" @1.5" of water
Flow Capacity:	17 gpm @ 8.5 psi
Inlet Connection:	FGHT
Outlet Connection:	MGHT

PUMP

Model No:	1P 862A
Housing Material:	Aluminum
Impeller	Aluminum

MOTOR

Model No:	5K956B
H.P.:	1/3
RPM:	3450
Full Load Amps:	6
Frame:	56J
Service:	1.85
Thermal Protection:	Yes (Automatic Reset)

FILTRATION

Stage I:	Three 19.5" disposable 20 micron pleated polyester cartridges-25 sq.ft. (total)
Stage II:	Two 9.75" disposable 5 micron pleated polyester cartridges-10 sq.ft. (total)

5815 Gulf Freeway • Houston, Texas 77023 • Phone: (713) 921-4888 • Fax: (713) 921-7924

Critical Systems™
A Division of Critical Industries, Inc.

AIR DRIVEN MINI WATER FILTRATION SYSTEM

SPECIFICATION:

Dimensions:	30" L x 30" W x 38" H
Weight:	55 lbs. Dry
Power Supply:	Compressed Air
Pressure Gauge:	Located on each filter stage indicates loading
Level Control:	Manual
Flow Capacity:	20 gpm @ 30' of head (2800 rpm)
Inlet Connection:	FGHT
Outlet Connection:	MGHT

PUMP

Model No:	500352
Housing Material:	Cast Iron
Impeller:	Cast Iron

MOTOR

Model No:	500120
H.P.:	3/4 Maximum
RPM:	300-3000
Maximum Operating Pressure:	100 psi
Rotation:	CCW

FILTRATION

Stage I:	Three 19.5" disposable 20 micron pleated polyester cartridges 25 square feet (total).
Stage II:	Two 9.75" disposable 5 micron pleated polyester cartridges 10 square feet (total).

5815 Gulf Freeway • Houston, Texas 77023 • Phone: (713) 921-4888 • Fax: (713) 921-7924

March 12, 1990

MINI WATER DOMESTIC
SPARE PARTS

ITEM #	QTY	DESCRIPTION	LIST PRICE
300102	1	WATER FILTER HOUSING M2-9	75.51
300104	1	WATER FILTER HOUSING M3-19	128.80
500300	1	PUMP 1/3 HP 110V 60HZ	278.71
C10104	2	5 MICRON 10 H2O FILTER	3.90
320030	4	3 SWIVEL CASTER	4.35
C10400	3	HOUSING CAP W/O HOLES	6.84
C10401	2	HOUSING CAP W/HOLES	6.84
C10402	5	CAP O-RING	.92
C10411	5	FILTER PLUG	.70
C10410	5	GASKET SPRING	.49
C10409	5	FILTER GASKET	.44
500365	1	PUMP BRACKET	12.63
500350	1	PUMP CASING	151.54

March 14, 1990

MINI WATER AIR POWER
SPARE PARTS

ITEM #	QTY	DESCRIPTION	LIST PRICE
320030	2	3 SWIVEL CASTER	4.96
C10104	2	5 MICRON 10 H2O FILTER	3.90
500120	1	AIR MOTOR	200.20
500352	1	PUMP HEAD	147.98
400020	1	1/4 BALL VALVE	4.53
620114	1	1/4 MNPT X 3/8 PLUG FOSTER	2.85
400030	1	3/4 SWING CHECK VALVE	5.18
620203	2	3/4 MNPT X MGHT	2.86
620201	1	3/4 SHANK X MGHT	3.18
500127	1	COUPLING BODY 1/2	2.90
500126	1	COUPLING BODY 5/8	2.90
500125	1	COUPLING SPIDER	1.78
420251	1	0-160 PSI PRESSURE GAUGE BM	9.82
400201	1	1/4 REGULATOR	13.76
320031	2	3 LOCKING SWIVEL CASTER	6.92
C10401	1	CAP WITH HOLE	6.84
C10400	1	CAP W/O HOLE	6.84
C10402	1	CAP O RING	.91
C10411	1	FILTER PLUG	.70
C10410	1	GASKET SPRING	.49
C10409	1	GASKET	.44
C10405	1	PIPE STAND 9 3/4	2.27
C10406	1	PIPE STAND 19 1/2	2.69

CRSI
Control Resource Systems, Inc.
A Subsidiary of Control Resource Industries, Inc
1502 Telegraph Road
P. O. Box 11454
Mobile, Alabama 36611
Phone (205) 457-4591

To whom it may concern:

This is to certify that the 1 micron and the 5 micron filter/ cartridge meets all standards and requirements. These filters are used in water filtration systems.

If you have any questions, please call the number above.

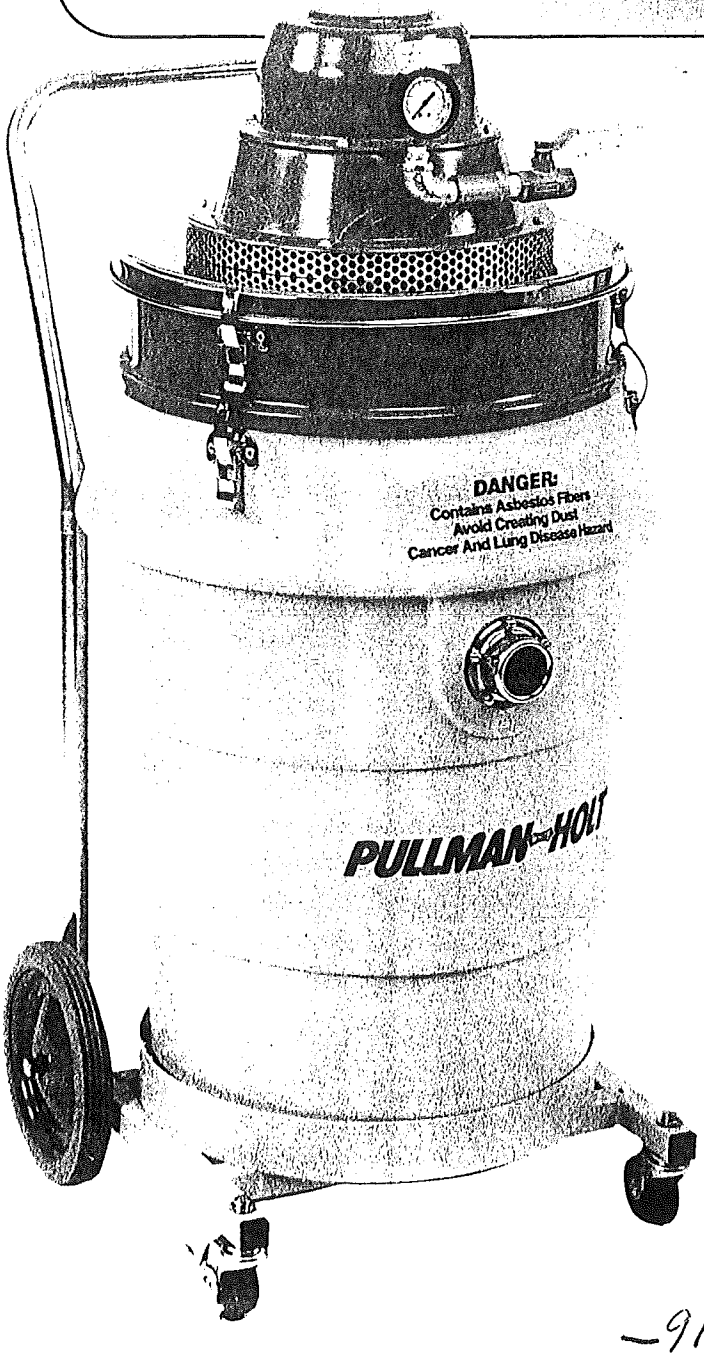
Thanks,
Butch Kennedy

OPERATION AND CARE INSTRUCTIONS

Model 720 ASB-12D Air Operated Asbestos Vacuum Cleaner

This vacuum cleaner is a high quality, precision made product. All parts used in the manufacturing of this vacuum cleaner have passed rigid quality control standards prior to assembly and an "each unit" final inspection prior to packaging is your assurance of proper assembly. This vacuum cleaner was protectively packed to prevent possible damage in transit. Should damage have occurred, please notify the transporting carrier immediately for loss and/or claim.

SAVE THESE INSTRUCTIONS



This Vacuum Cleaner is operated by compressed air. (Minimum air pressure required for rated performance is 80 p.s.i.g.) There are no moving parts and no electrical connection is required.

HOSE OR PIPE MIN. I.D.	LENGTH FROM COMPRESSOR	MINIMUM COMPRESSOR OUTPUT H.P
3/4"	up to 75'	20
1"	75' to 250'	

For peak performance, the I.D. of any pipe selection from compressor to unit should not be smaller than above.

BE SURE COMPRESSED AIR IS FILTERED TO AVOID PLUGGING OF UNIT.

Limited Warranty

The vacuum motor is warrantied for 2 years and other parts except filters for 90 days from the date of purchase as shown on your distributor's invoice. The warranty covers only failure due to defective parts or workmanship and will be invalidated by improper application, abuse or damage.

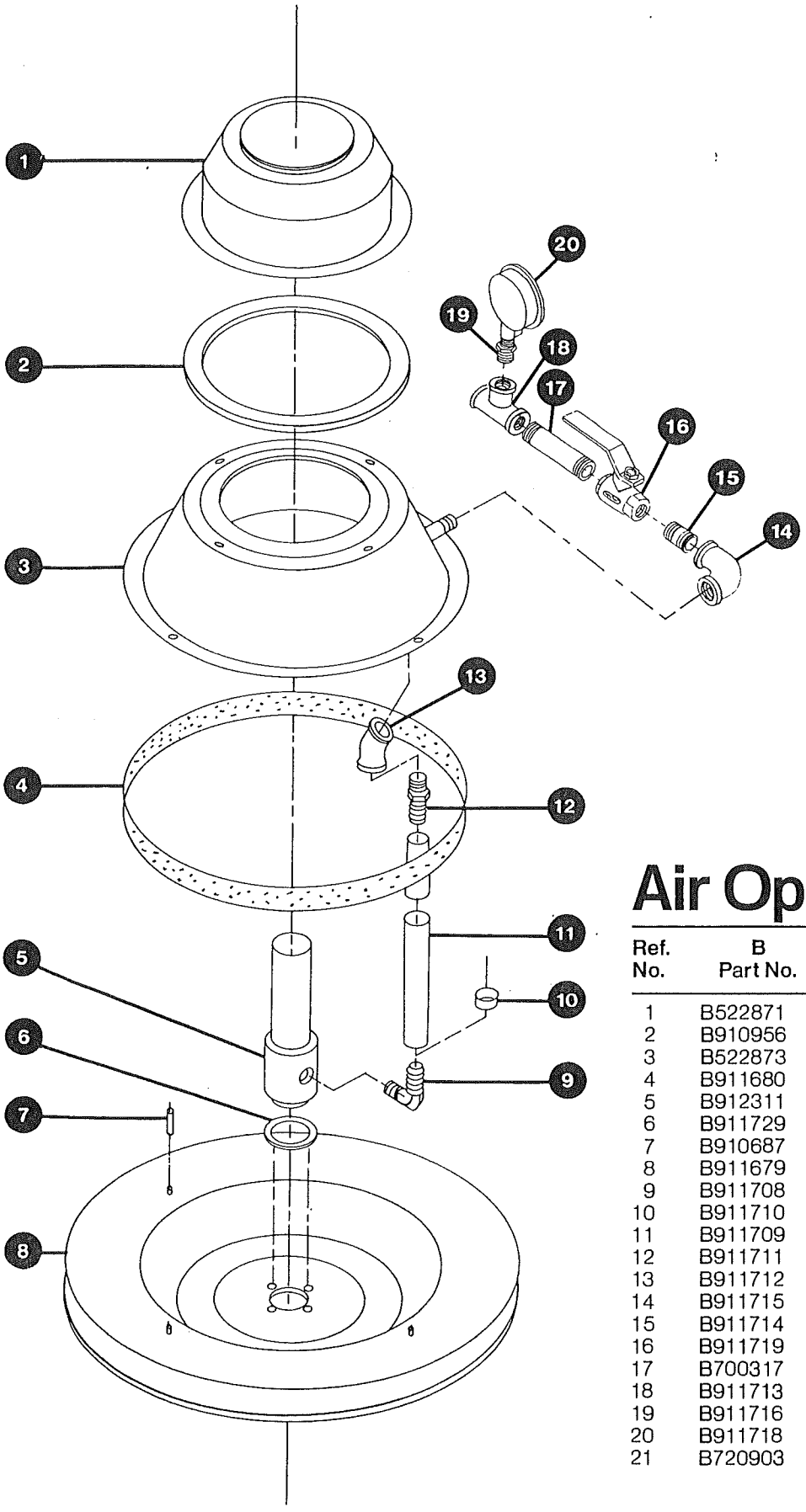
In *NO* circumstance should you return a failed unit to the factory or a service center.

If you experience any problems with your vacuum during the warranty period, contact the Pullman/Holt National Service Manager in Tampa, Florida at 1-800-273-7582.

NOTE: Using replacement HEPA filters other than original factory replacement filters supplied by Pullman/Holt will nullify all warranties, specific or implied.

PULLMAN-WHITE-HOLT
Subsidiary of White Mop Wringer Company
P.O. Box 16647 • 10770 46th Street • Tampa, Florida 33687
(813) 971-2223 • (800) 237-7582 • Fax (813) 971-6090

REPLACEMENT PARTS LIST



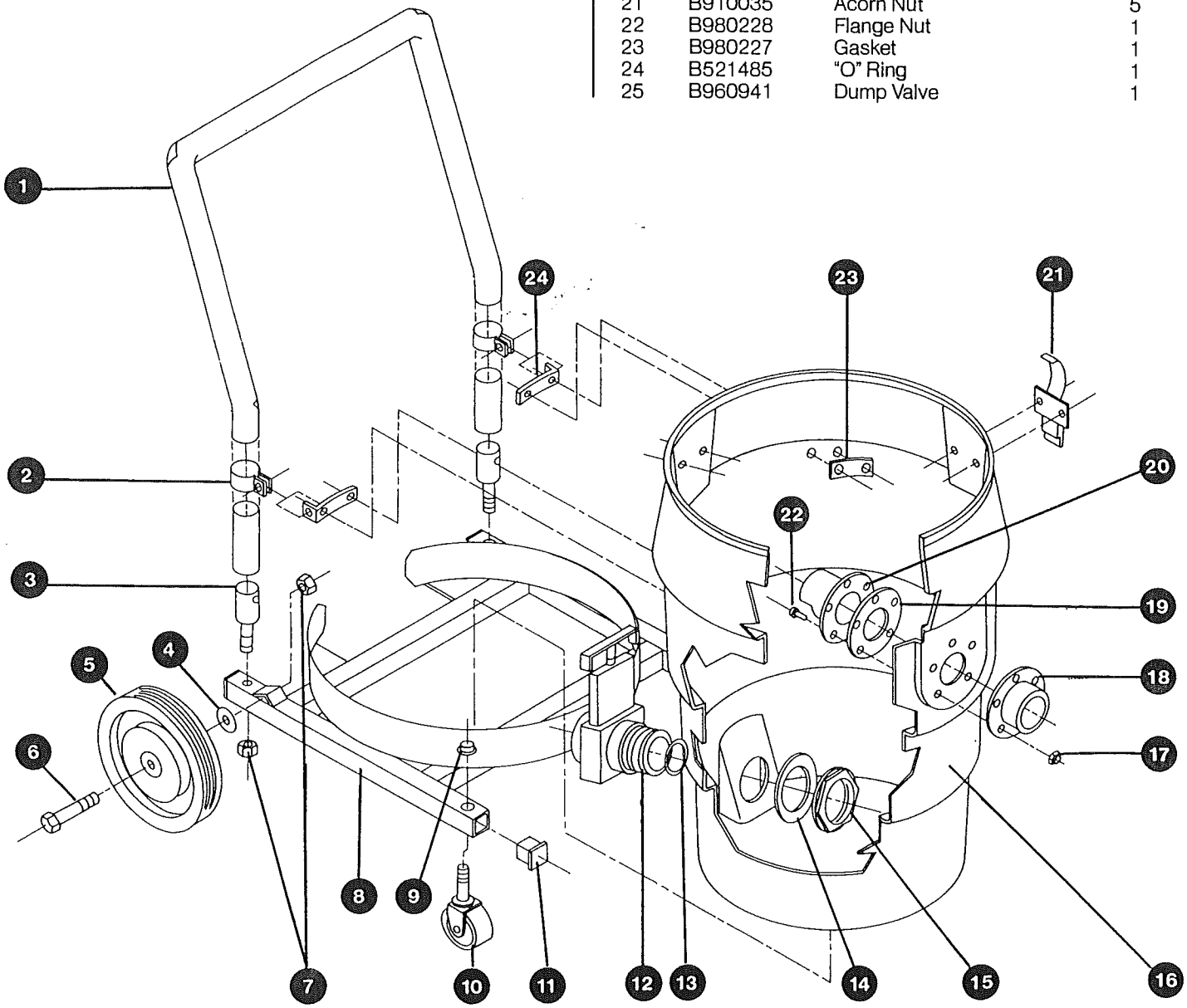
Model 720ASB-12D
Dry Asbestos
Vacuum Cleaner

Air Operated Head

Ref. No.	B Part No.	Description	Qty.
1	B522871	Dome Assembly	1
2	B910956	Gasket	1
3	B522873	Chamber Assembly	1
4	B911680	Exh. Screen	1
5	B912311	Vacon-720	1
6	B911729	Gasket	1
7	B910687	Spacer	4
8	B911679	Can Cap	1
9	B911708	90° Hose Connector	1
10	B911710	Hose Clamp	2
11	B911709	Hose	1
12	B911711	Str. Hose Connector	1
13	B911712	45° Pipe Elbow	1
14	B911715	90° Elbow	1
15	B911714	Close Nipple	1
16	B911719	Valve	1
17	B700317	Close Nipple 3" Lg.	1
18	B911713	Pipe Tee	1
19	B911716	⅜ to ¼ Reducer Bushing	1
20	B911718	Pressure Gauge	1
21	B720903	Complete Vac Head	1

Vacmobile Assembly

Ref. No.	B Part No.	Description	Qty.
1	B911992	Handle Pipe	1
2	B000530	Tool Basket	1
3	B520915	Handle Clamp	2
4	B520104	Handle Support	2
5	B980556	Washer	2
6	B910510	Wheel	2
7	B521019	Axle	2
8	B980557	Hex Nut	4
9	B521109	Frame	1
10	B910518	Non-Lock Caster	1
10A	B910520	Locking Caster (not shown)	1
11	B910073	Hub Cap	2
12	B520353	Trim Plug	4
13	B521086	Handle Bracket	2
14	B522095	Poly Tank	1
15	B521088	Back Up Plate	2
16	B521454	Clamp	3
17	B911577	Screw	5
18	B520357	Scoop	1
19	B520376	Inlet Gasket	1
20	B522039	Inlet Connector	1
21	B910035	Acorn Nut	5
22	B980228	Flange Nut	1
23	B980227	Gasket	1
24	B521485	"O" Ring	1
25	B960941	Dump Valve	1



ABOUT THE VACUUM CLEANER

Vacuum Assembly Guide:

Remove and carefully set aside motor head and filter assemblies. Position 8" rear wheels and insert ⅜" x 3¼" mounting bolts through the wheel and frame. Secure with ⅜" lock nuts.

Insert and push casters into the holes located at the front of the vacmobile metal frame. Lock the casters in place with the hub nuts, using a rubber hammer.

Replace motor head.

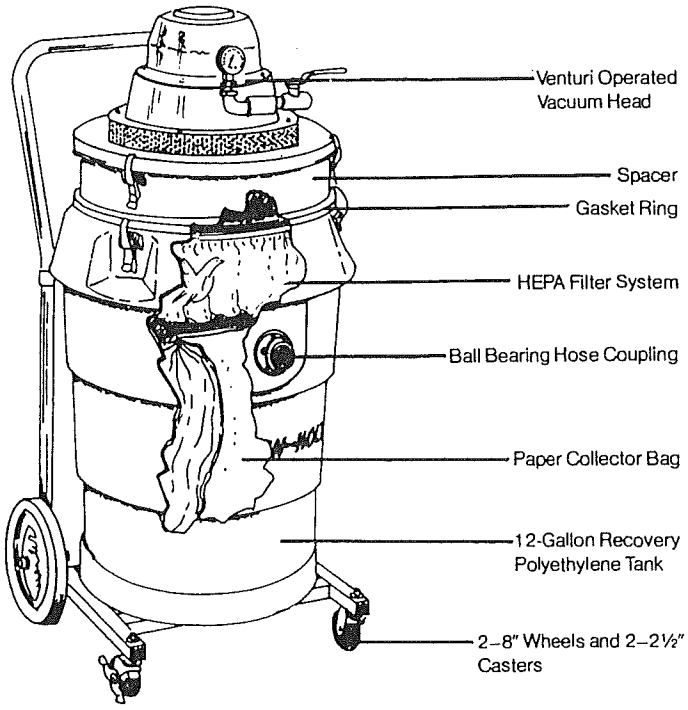
To Connect Hose:

A metal quick disconnect hose adapter is standard equipment with this vacuum cleaner. Simply push the adapter onto the intake valve until the "ball bearings" seat, then fit the hose connector over the end of the adapter shank. Wands and/or tools are then fitted to the opposite end of the hose.

To remove the metal hose adapter, use a twist and pull action.

To Operate:

The vacuum cleaner is designed to perform as a dry unit.



Dry Operation:

With disposable paper bag and HEPA Filter in place, the motor head securely clamped, and the metal hose adapter connected to the inlet, plug the power cable into the proper outlet. Select the appropriate hose, wand and/or tool and connect to the hose adapter. The vacuum cleaner is ready for dry use.

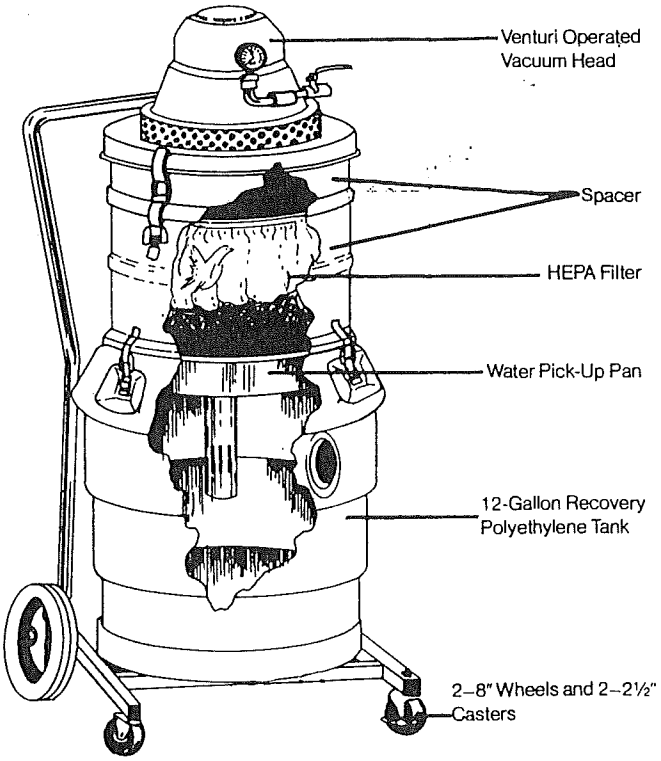
Disposable bag changing:

Over filling the bag will result in loss of vacuum efficiency.

NOTE:

The recommended bag replacement procedure is as follows:

1. Remove vacuum head and H.E.P.A. filter.
2. Tape a 6 mil poly bag over the canister so that the canister is completely enclosed.
3. Using the poly bag as a glove, disengage the paper bag from the vacuum inlet stem inside the canister.
4. Invert the canister so that the paper bag falls into the poly bag. Seal the poly bag and dispose as prescribed by law.
5. Attach a new paper bag to the vacuum inlet securely and fold the top of the bag down so it does not interfere with the H.E.P.A. filter.
6. Replace the H.E.P.A. filter and motor head.
7. Thoroughly vacuum the work area to recover any asbestos dust which may have been dropped.



Wet (Optional) Operation:

To convert this vacuum cleaner to wet pick-up remove paper collector bag and add Wet Pick-up Conversion Kit W-1 (B520788) to the Air Filter Assembly.

The purpose is to provide protection for the vacuum cleaner bypass motor. When the maximum water level in the vacuum cleaner poly tank is reached, the safety valve (float) closes off suction, automatically preventing further liquid intake.

NOTE: This will cause the motor to race. Turn off motor, remove and empty poly tank. Thoroughly clean float assembly.

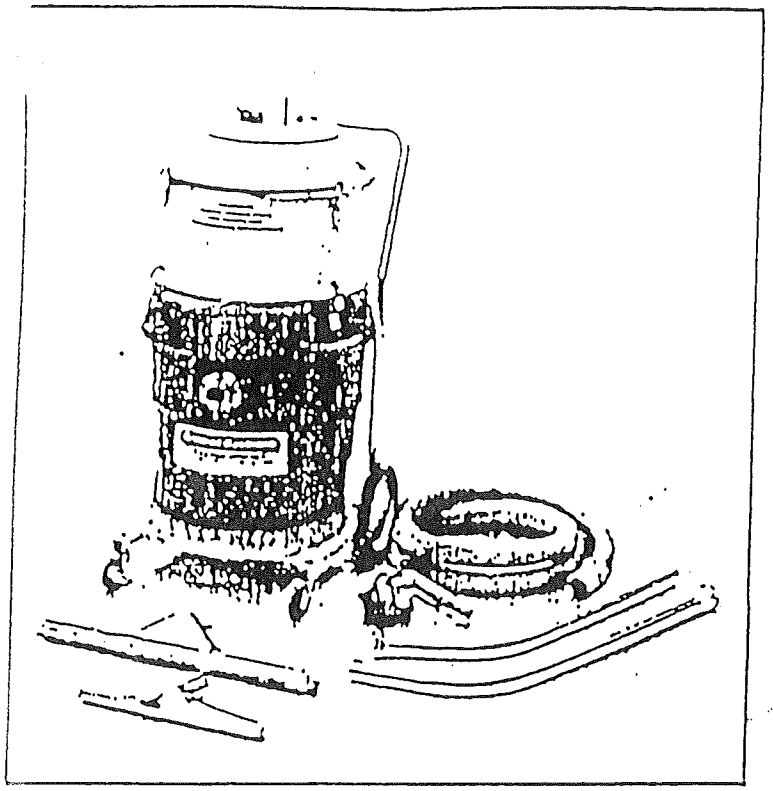
Replace Water Pick-up Adapter and motor head, then clamp securely. The vacuum cleaner is ready for wet use.

NOTE: Using replacement HEPA filters other than original factory replacement filters supplied by Pullman/Holt will nullify all warranties, specific or implied.

PH88-87
Printed in U.S.A. 10/88 RP
B700304

Critical Services

Vacuums

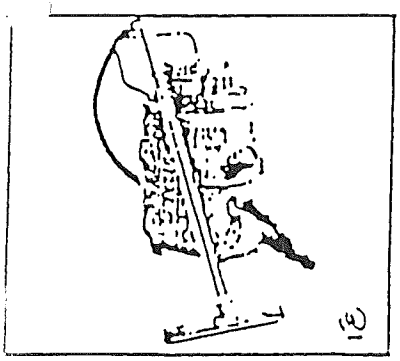


The Purple One

The Critical Systems no dent poly drum high performance vacuum is equipped with a nuclear grade HEPA filter certified by Independent Testing Laboratory and exceeds the OSHA standard of 0.5 fibers of asbestos per cubic centimeter of air. The durable outer barrel is constructed to eliminate denting of the rim and combine light weight with high strength. For easy water removal, a convenien dump valve is located on the back side.

SPECIFICATIONS:

Tank capacity:	10 gallons
Motor:	2 hp
Input power:	110 volt
Full load amps:	12.5
Water lift:	105"
CFM:	110
Shipping weight:	Dry 65#
	Wet/Dry 75#



FEATURES:

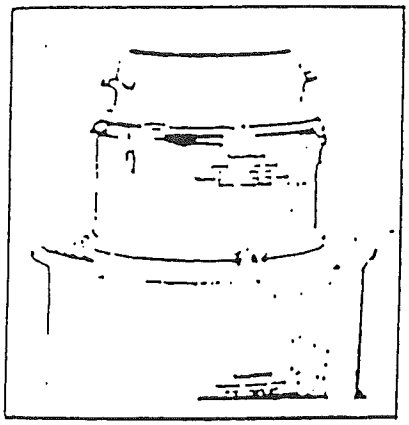
- Primary HEPA filter, fiberglass prefilter, and "Never Clog" Dacron Filter Bag.
- 3-1 HP By-Pass Motors for the removal of wet asbestos
- Mark 1 Drum Adapter with 2" intake.
- Water pick-up adapter in.
- Warranty: Motor two years, parts 90 days.

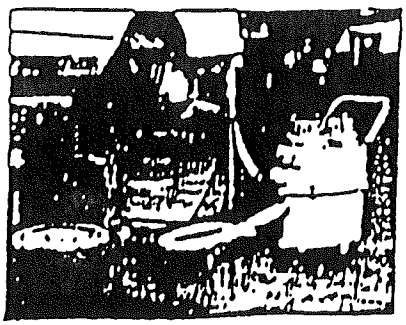
PULLMAN-HOLT

The Pullman/Holt 503-ASB drum adapter set allows you to make a giant asbestos vacuum with the capability of wet pick up. Place the motor unit and filter equipment into the adapter ring, then set the entire assembly on your own 55 gallon drum.

K-19 1½" Wet/Dry Tool Kit

- 5" Two Piece Wand
- 10' Crushproof Hose
- Dusting Brush
- Floor Gulper
- 22" Squeegee
- 1½" to 2" Adapter (not shown)





NILFISK

Makes vacuuming more scientific and much easier. The GS 82 not only has a unique graduated filtration system, but also features three Nilfisk exclusives not found c ordinary industrial vacuums: a manometer a filter agitator and highly refined motors. The manometer measures a pressure differential inside the GS 82. The filter agitator keeps filters clog-free.

The GS 82 used with Asbestos-Clene® System to vacuum asbestos dust from brakes.

-95-

TEXAS • 5815 Gulf Freeway • Houston, Texas 77023 • TOLL FREE 1 800 527 1630 • IN STATE (713)921 4000 • FAX NO (713)921-7924
GEORGIA • 1720 C McCobb Drive • Smyrna, Georgia 30080 • TOLL FREE 1 800 247 7208 • IN STATE (404)431 0107 • FAX NO (404)433 1675

PULLMAN/HOLT CORPORATION
P.O. Box 16647 • 10702 46th Street • Tampa, Florida 33687
(813) 971-2223 Telex 052 [illegible]

April 7, 1988

To whom it may concern:

This is to certify that the exhaust air stream produced by a properly assembled and maintained Pullman Holt vacuum cleaner equipped with a H.E.P.A. filter Cambridge Model 10E-SER(S) Part #H1247245G53 (P/H B000445) or Model 1-P Part number A-1255734GO,(P/H B526520) meets or exceeds O.S.H.A. standard 1910-1001 as amended and any applicable sections of A.N.S.I. Z9.2 - 1979 for asbestos fiber concentration.

Each H.E.P.A. Filter is individually tested per MIL STD 282 and certified by the filter manufacturer for a minimum efficiency of 99.97% on 0.3 micron particles.

Sincerely,

Jim VandeSande
DIRECTOR OF
QUALITY CONTROL

JV:me

WHITE
10702 N. 46th Street • Tampa, Florida 33617
(813) 971-2223 FAX (813) 971-6090

January 29, 1998

Subject: Certification

To Whom It May Concern:

This is to certify that the exhaust air stream emitted from a properly assembled and maintained Pullman/Holt vacuum cleaner or air moving device equipped with a H.E.PA. filter meets or exceeds OSHA Standard 1910-1001, as amended and all applicable sections of A.N.S.I. z 9.2 for asbestos fiber concentration.

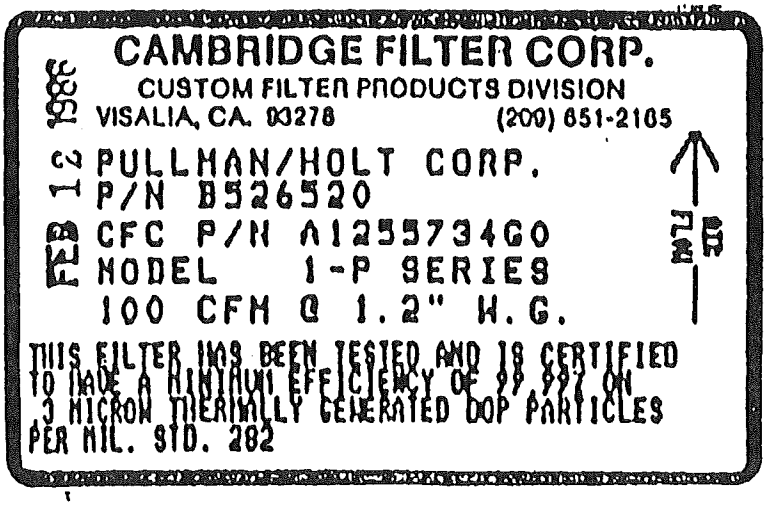
This certification applies also to other solid particulate materials such as lead, silica, radioactive dust and many other hazardous materials. This filter is not suitable for materials that vaporize such as mercury.

Each H.E.P.A. filter is individually tested per MIL.STD 282 and certified by the filter manufacturer for a minimum efficiency of 99.97% on 0.3 micron particles.

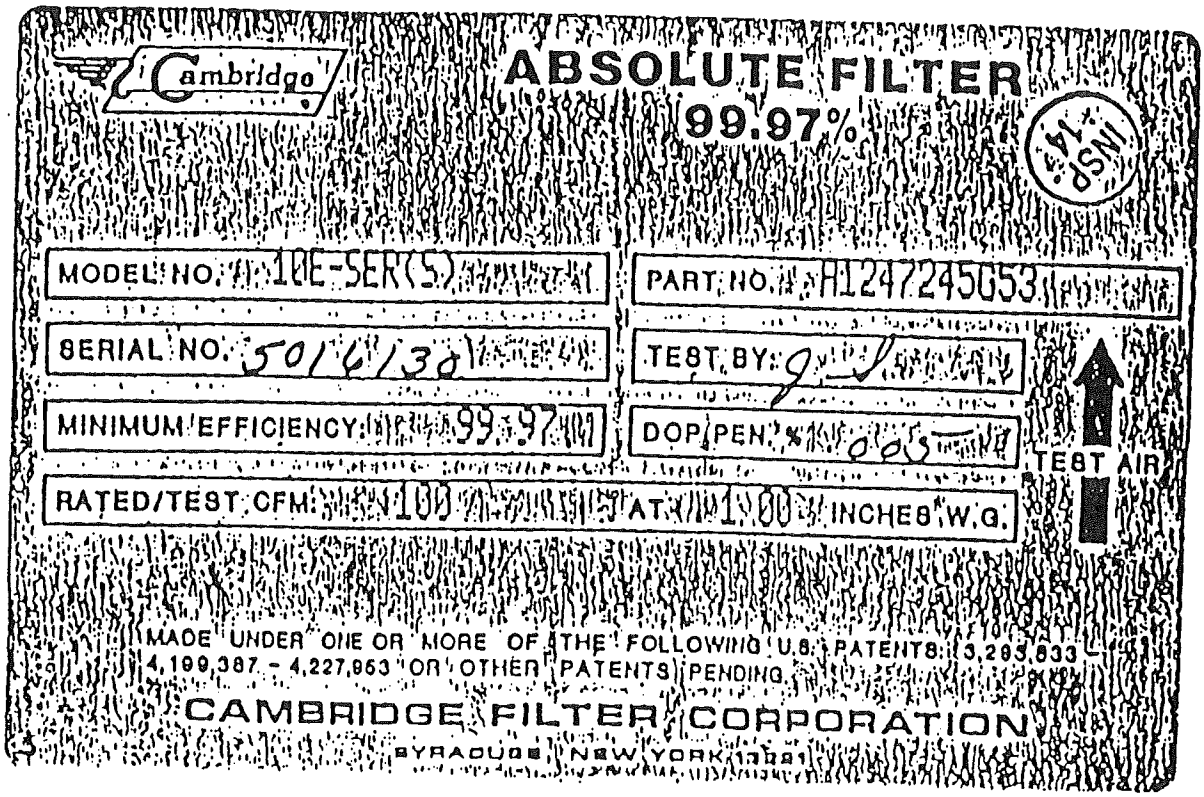
Sincerely,

Robert Eukovich
Vice President
Sales and Marketing

RE:kb



Sample of Test Results
affixed to each H.E.P.A. Filter.
(PART NO. B526520)

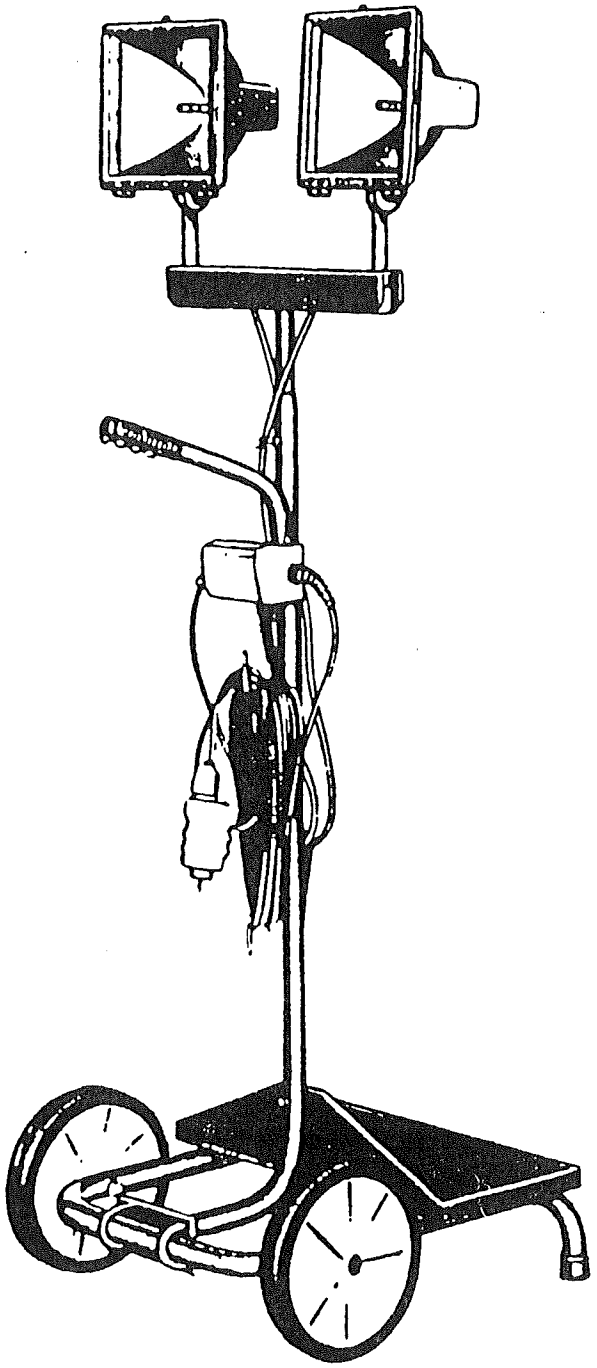


Sample of Test Results
affixed to each H.E.P.A. Filter.
(PART NO. B000445)

CRSI

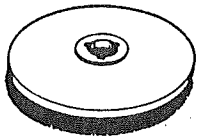
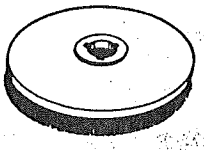
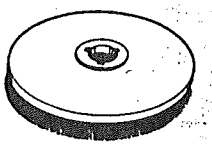
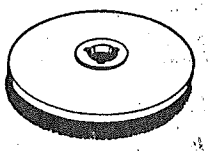
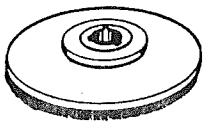
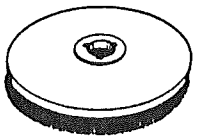
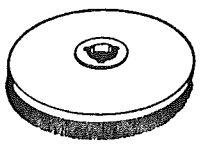
PORTABLE LIGHTING STATION

- Two 500 Watt Swivel Fixtures
- Extends To 90" Height
- For Indoor And Outdoor Use
- Swivels 360° Horizontally, 270° Vertically
- 15 Amp Grounded Outlet For Accessories
- Convenient Tray For Tool Box
- Easy Roll Rubber Wheels
- Perfect Lighting For Nightime Work Shifts On Those Tightly Scheduled Asbestos Projects

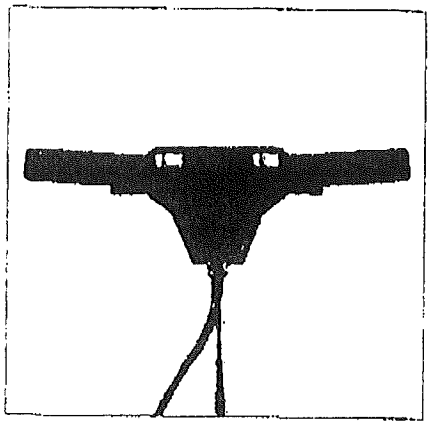


[redacted]
Complete As Shown

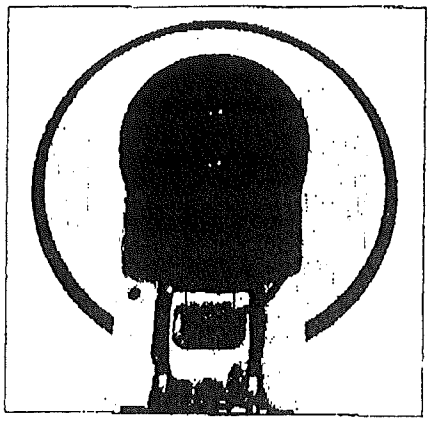
CONTROL RESOURCE SYSTEMS, INC.
WORLDWIDE ENVIRONMENTAL SUPPLIES AND EQUIPMENT
CALL (219) 872-5591

	Order No. Shipping Wt.	General Description	Suggested Retail Price
		Bassine Woodback Scrub Brush Use for scrubbing of tile, terrazzo, linoleum and similar surfaces	
	160074	Fits the D-16, D-16 H.D. & MC-16	$ 32.00
	170009	Fits the S-17, S-17 H.D. & M-17	32.00
	200010	Fits the D-20, D-20 H.D., S-20, M20250 & M20400	42.00
	805541	Fits the MC-19	61.00
	22309	Fits the MC-22	74.00
		Union Mix, Woodback, Polishing Brush Use for polishing tile, terrazzo, linoleum, and similar surfaces	
	160075	Fits the D-16, D-16 H.D. & MC-16	$ 50.00
	170010	Fits the S-17, S-17 H.D. & M-17	39.00
	200011	Fits the D-20, D-20 H.D., S-20, M20250 & M20400	54.00
	805543	Fits the MC-19	54.00
	22308	Fits the MC-22	78.00
		Steel Wire Brush Woodback for Concrete Scrubbing	
	170008	Fits the S-17, S-17 H.D. & M-17	$ 79.00
	200009	Fits the D-20, D-20 H.D., S-20, M20250 & M20400	99.00
		Lustre-Buff Brush w/Plate	
	170035	Fits M-17 & S-17	$ 104.00
	200035	Fits M-20 & S-20	143.00
		"Perma-Grip" Pad Holders Used to hold general maintenance pads and steel wool pads	
	160088	Fits the D-16 & D-16 H.D.	$ 40.00
	170024	Fits the S-17, S-17 H.D. & M-17	40.00
	200018	Fits the D-20, D-20 H.D., S-20, S-20 H.D., M20250	49.00
	809031	Fits the MC-19	49.00
	809034	Fits the MC-22	69.00
		Nylon Shower Feed Brush For carpet and general scrubbing	
	16450	16" Fits MC-16	$ 60.00
	160071	16" Fits D-16, D-16 H.D.	60.00
	170017	17" Fits S-17, S-M H.D. and M-17	60.00
	19450	19" Fits MC-19	78.00
	200008	20" Fits D-20, D-20 H.D., S-20, S-20 H.D, and M-20	68.00
		Metalback Shower Feed Brush Nylon Carpet Shampoo Brush (refillable)	
	160093	Fits D-16 H.D.	$ 277.00
	170007	Fits S-17 H.D.	284.00
	200027	Fits D-20 H.D.	435.00

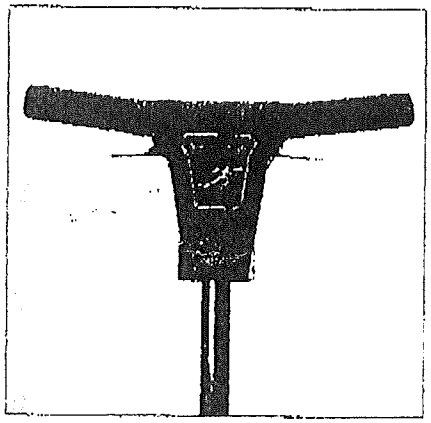
MINUTEMAN FRONT RUNNER™ SERIES FLOOR MACHINES



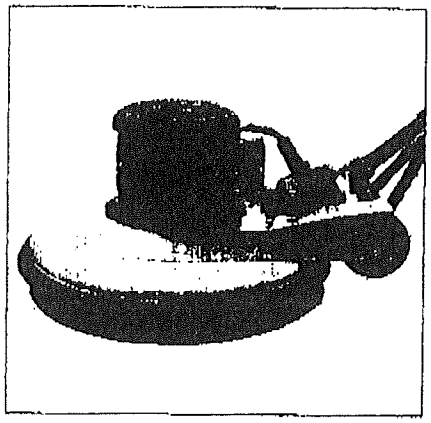
DUAL SAFETY INTERLOCKS
Dual safety interlocks prevent unintentional start-ups and allow operator to start machine from either handle position. Each machine is also equipped with a power indicator light.



CARBON BRUSH INDICATOR LIGHT
On 2-speed models this light alerts the operator when carbon brushes need to be replaced. A triple planetary gear system is also standard on the 2-speed machines.



OPERATOR DESIGNED HANDLES
Handles are positioned for operator comfort which reduces user fatigue.



CAST ALUMINUM HOUSING
A cast aluminum housing and heavy-duty bumper prevent the machine and walls from damage. Enclosed rear wheels allow for easy transport.

SPECIFICATIONS

MODEL NUMBER:	M17120-00	M17120-01	M17120-02	M17120-03	M20120-01	M20120-02	M20120-03
MODEL NO.-240V:	N/A	M17240-01	M17240-02	M17240-03	M20240-01	M20240-02	M20240-03
BRUSH DIAMETER:	17"/43 cm	17"/43 cm	17"/43 cm	17"/43 cm	20"/51 cm	20"/51 cm	20"/51 cm
HORSEPOWER:	3/4 hp	1 hp	1-1/2 hp	1-1/2 hp	1 hp	1-1/2 hp	1-1/2 hp
BRUSH SPEED:	175 rpm	175 rpm	175/300 rpm	175 rpm	175 rpm	160-330 rpm	175 rpm
CABLE LENGTH:	50'/15 m	50'/15 m	50'/15 m	50'/15 m	50'/15 m	50'/15 m	50'/15 m
CABLE SIZE:	14-3	14-3	14-3	14-3	14-3	14-3	14-3
WHEELS:	4-1/2"/11 cm	4-1/2"/11 cm	4-1/2"/11 cm	4-1/2"/11 cm	4-1/2"/11 cm	4-1/2"/11 cm	4-1/2"/11 cm
WEIGHT (with brush):	91 lbs/41 kg	95 lbs/43 kg	100 lbs/45 kg	100 lbs/45 kg	98 lbs/44 kg	103 lbs/47 kg	103 lbs/47 kg

Minuteman®

World Headquarters
Minuteman International, Inc.
111 South Rohlwing Road
Addison, IL 60101-4244
Telephone: (708) 627-6900
Fax: (708) 627-1130

Minuteman Canada, Inc.
84-E Brunswick Blvd.
Dollard des Ormeaux, Quebec H9B 2C5
Telephone: (514) 683-3880
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SENSIDYNE®

BDX 530 HEAVY DUTY SUPER SAMPLER PUMP

OPERATION AND SERVICE MANUAL (No. 7011787-M)

1.1 INTRODUCTION

The SENSIDYNE® BDX 530 Heavy Duty Super Sampler Pump provides a U.L. approved, intrinsically safe automatic sampling source for a wide variety of applications. The BDX 530 is capable of delivering 2 liters per minute (LPM) of sample air for periods exceeding eight (8) hours with a nominal head restriction of up to 20" [508 mm] of water. Primary applications include sampling for asbestos, emissions, dusts, fumes, and mists.

The BDX 530 is designed for maximum utility, simplicity of operation, long service life, and extreme ease of maintenance and repair. Pertinent features of this system are:

- Intrinsically Safe
- Long Life, Rechargeable/Replaceable Battery Pack
- Battery Pack Rechargeable, when connected to or disconnected from BDX 530
- Extra Strong Plastic (ABS) Molded Case
- Easily Readable Flowmeter
- Small, Long Life, Field Repairable Double Diaphragm Pump

1.2 DESCRIPTION

The SENSIDYNE® BDX 530 Heavy Duty Super Sampler Pump (**Figure 1.1**) consists of the following:

- **ABS Plastic Case**
- **Pump Module (which includes):**
  - Double Diaphragm Pump Assembly (with protective shunt diodes on motor)
  - Flow Regulator/Pulsation Dampener Assembly
    - Airflow Adjustment Assembly
- **Flowmeter**
- **Dust filter**
- **Rechargeable Battery Pack**

The unit is operated by an ON/OFF push-button power switch located on the right side of the case.

A sample air inlet located on top of the case will accept 1/4" [6.4 mm] I.D. flexible sampler hose (refer to **Figure 1.1**). The sample air inlet is connected internally through a dust filter to the bottom of the flowmeter. The top outlet on the flowmeter is connected to the flow regulator/pulsation dampener assembly. The outlet of the flow adjustment assembly is connected to the inlet of the double diaphragm pump. Air is exhausted to the atmosphere through the charging jack on the battery pack (see **Figure 1.2**).

The battery charger will restore the battery pack to a full capacity in 16 hours (overnight) or 64 hours (over a weekend).

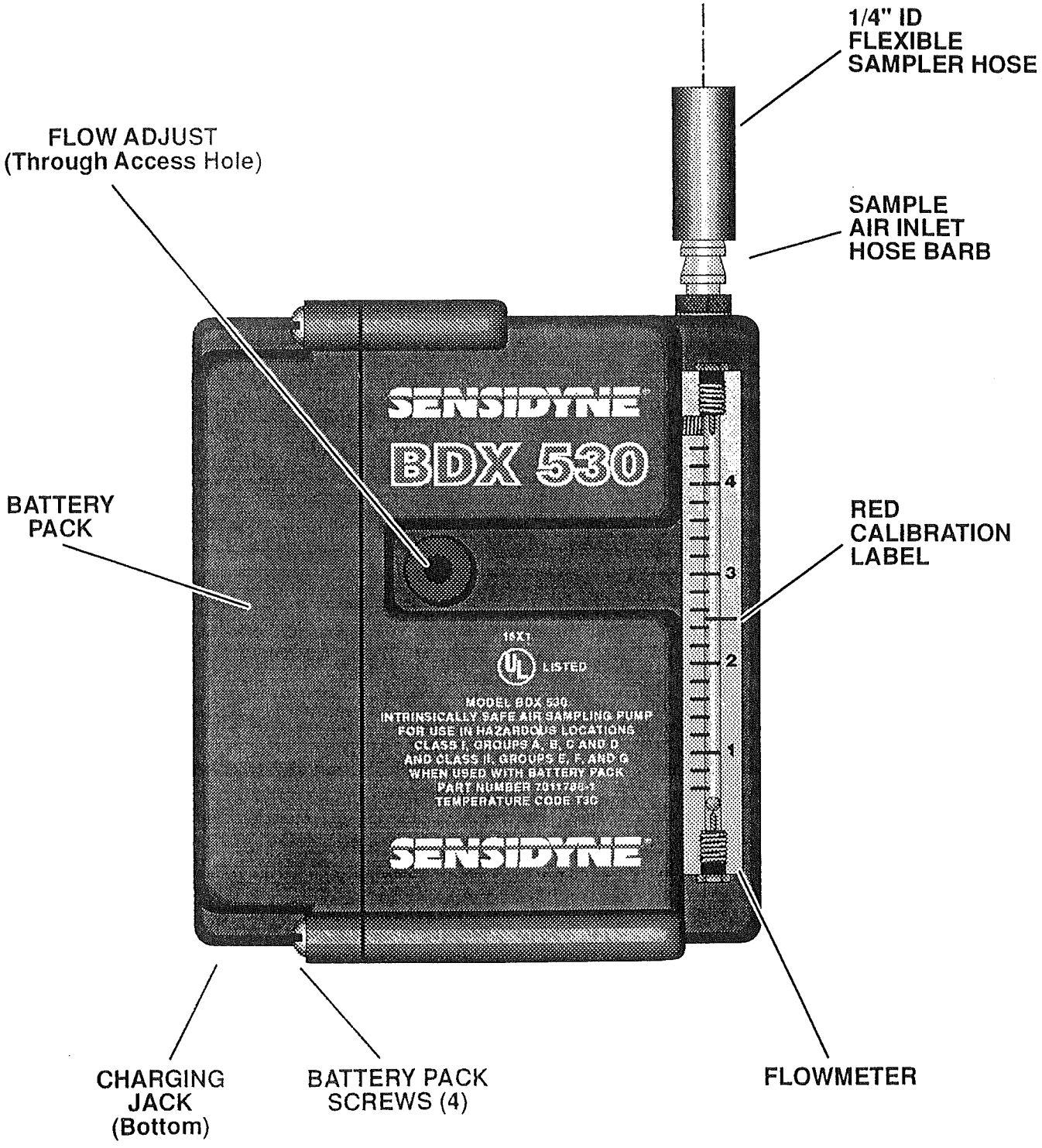


FIGURE 1.1
BDX 530 FRONT VIEW

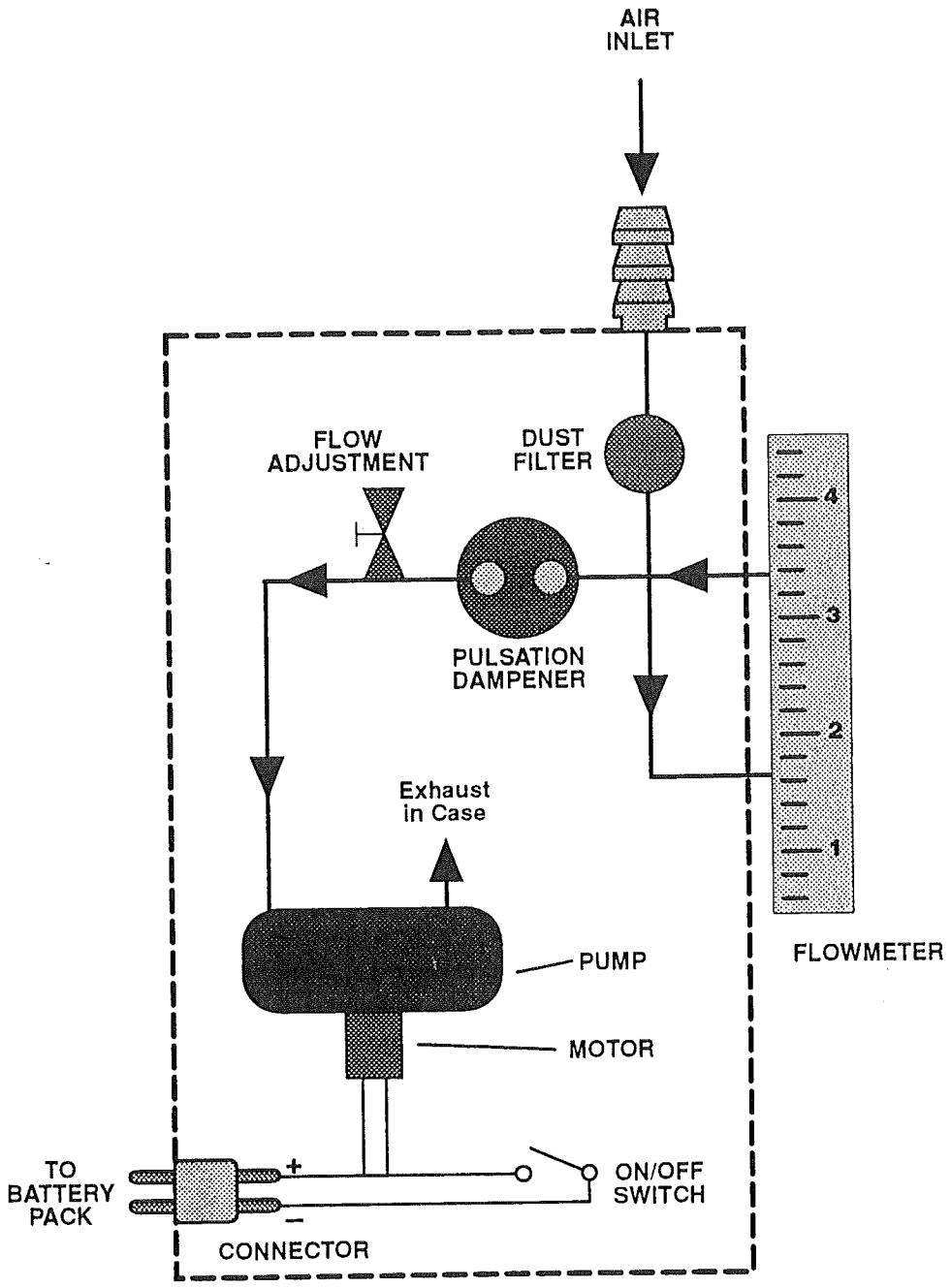


FIGURE 1.2
BDX 530 FLOW DIAGRAM

1.3 COMPONENTS

All components of the BDX 530 (with the exception of the flowmeter) are housed within the ABS plastic case. The flowmeter is located on the front side of the plastic case.

The Pump Module includes all of the internal components except the dust filter, sample tubing, and rechargeable battery pack. The module itself consists of the double diaphragm pump assembly, the flow regulator/pulsation dampener assembly, and mounting plate assembly. (The term "Pump Module" simply refers to the above components when they are assembled together and considered as a **single unit** during removal and re-installation in the BDX 530 case, refer to **Section 3.2– Pump Module**.)

1.3.1 Double Diaphragm Pump Assembly

The double diaphragm pump is a high impact plastic assembly containing a motor, connecting rod, two diaphragms, and four valves. All parts are field replaceable.

The diaphragms draw air into two chambers in the pump block via the flap valves. Pump flow (see **Figure 1.2**) is through an fine-pore filter which protects the moving parts from damage due to dust particles. With each reversal of diaphragm direction, the air is expelled alternately from the two chambers through two other flap valves into an exhaust chamber and into the BDX 530 case.

1.3.2 Flow Regulator/Pulsation Dampener Assembly

The flow regulator/pulsation dampener assembly reduces pump stroke irregularity in the sampled airflow. The airflow adjustment assembly consists of a Lexan body, a stainless steel needle valve, and a bleed port. This valve is used to precisely set the sample airflow. Adjustment is made by turning a recessed screw, which is protected by a self-closing rubber grommet.

1.3.3 Flowmeter

The flowmeter on the BDX 530 is a precision machined instrument that has been accurately calibrated at the factory. A red marking label on the flowmeter (**Figure 1.1**) indicates calibration at 2 LPM with an inlet resistance of 14" [356 mm] of water. An arbitrary scale on the flowmeter is provided for the convenience of the user.

1.3.4 ON/OFF Switch

The ON/OFF push-button power switch, located on the right side of the case, is protected by a flush, dust-proof, rubber bellows cover. The unit is started and stopped by alternately depressing and releasing the cover.

1.3.5 Battery Pack

The intrinsically safe rechargeable/replaceable nickel-cadmium battery pack is especially designed for the BDX 530. The battery pack connects to the BDX 530 through a small electrical connector on the side of the unit. The battery pack is attached to the pump case by four mounting screws. The battery is re-charged by connecting one end of the charger cable to the jack (located on the bottom of the battery pack) and plugging the other end of the cable into an AC outlet.

1.3.6 Battery Charger

The battery charger for the BDX 530 (supplied as optional equipment) is a single-unit configuration. It is designed to fully charge a completely discharged battery pack in 16 hours. Weekend charging (64 hours) is possible; the extended charging time will not harm the battery pack.

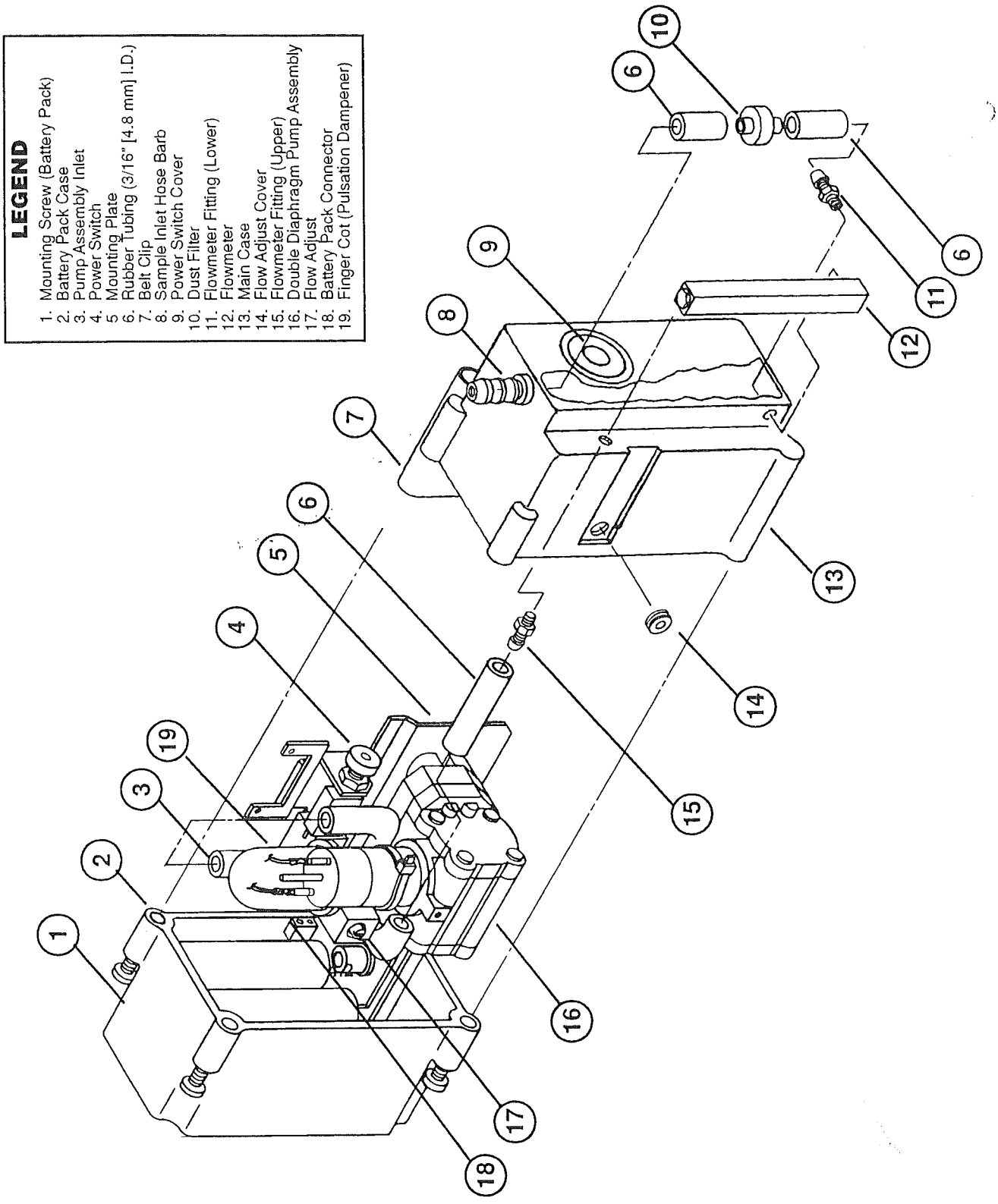


FIGURE 1.3
BDX 530 PARTS IDENTIFICATION

2.1 INTRODUCTION

The BDX 530 is used to draw sample air through a lapel-mounted filter. The battery pack has the ability to operate the BDX 530 for an 8-hour shift at 2.0 - 2.5 LPM, while maintaining adequate reserve using a NIOSH method 7400 filter cassette. **The battery must be fully charged to assure full-flow operation for the entire shift.**

2.2 BATTERY PACK

The nickel-cadmium battery pack supplied with the BDX 530 will withstand abuse, has good low temperature performance characteristics, and can be recharged many times to give a long useful life. In order to obtain the maximum pumping capacity built into this instrument, several simple precautions are required:

2.2.1 Storage

Batteries stored for a long period of time or used only occasionally may require one or two charge/discharge cycles in order to be restored to full capacity.

2.2.2 "Memory" Effect

If the battery experiences a series of **repeated** partial charge/discharge cycles of the **same exact magnitude**, the battery may become so conditioned that it will delivery only slightly more capacity than has been required of it during the preceding repetitive cycles.

If the cell is subjected to a deep discharge and then recharged, this "memory" is erased and nearly all of the original cell discharge energy is regained.

The "memory" effect does not occur when the battery is discharged to **random depths** of discharge or overcharged for **random amounts** time, as is typically the case in most applications.

The battery charger (available as optional equipment) is designed to fully charge the battery overnight (16 hours), or over a weekend (64 hours).

A wiring diagram of the BDX 530 is provided in **Figure 2.1.**

2.3 CHARGING THE BATTERY PACK

2.3.1 General

The charger is designed to operate from a standard 110-volt, 60-Hz source.

STOP WARNING STOP

DO NOT CHARGE BATTERY PACK IN HAZARDOUS AREAS.

2.3.2 Charging Operation Sequence

1) Charging time is 16 hours (for overnight) or 64 hours (for weekend).

2) Insert the plug on the charger cord securely into the charging jack located at the bottom of the battery pack.

3) Plug the power cord into a 110 VAC, 60 Hz power source.

4) At the end of the charging period, disconnect the charging plug and operate the BDX 530 until the battery voltage levels off (approximately 15 minutes).

2.4 OPERATION OF THE BDX 530

1) Check all hose connections for tightness and inspect the hose carefully for breaks. Replace if necessary. Check the BDX 530 for leaks. (Refer to **Section 3.1**.)

2) Connect the hose attached to the sampling element/head to the sample inlet hose barb on top of the BDX 530.

3) Push the ON/OFF power switch to start the unit.

4) Set the flow adjustment valve to 4.0 LPM using a flat-blade screwdriver (provided). Turn the adjustment screw clockwise to increase and counterclockwise to decrease the airflow. (The BDX 530 will normally maintain set flow within ± 5%, with no more than two (2) readjustments needed over an eight-hour period. However, heavy filter media loading may make more frequent readjustments necessary.)

NOTE

The Battery must be fully charged when the BDX 530 is used for long-term operation (8 hours or longer).

5) If a sampling head is used, attach the BDX 530 to the belt and the sampling head to the shirt, near the face (breathing area). When other types of sampling elements are used, position the BDX 530 and sampling element in the environment to be sampled. For area sampling (non-personal), elevate the sampling media to breathing zone height. The sampling media inlet should always point downward.

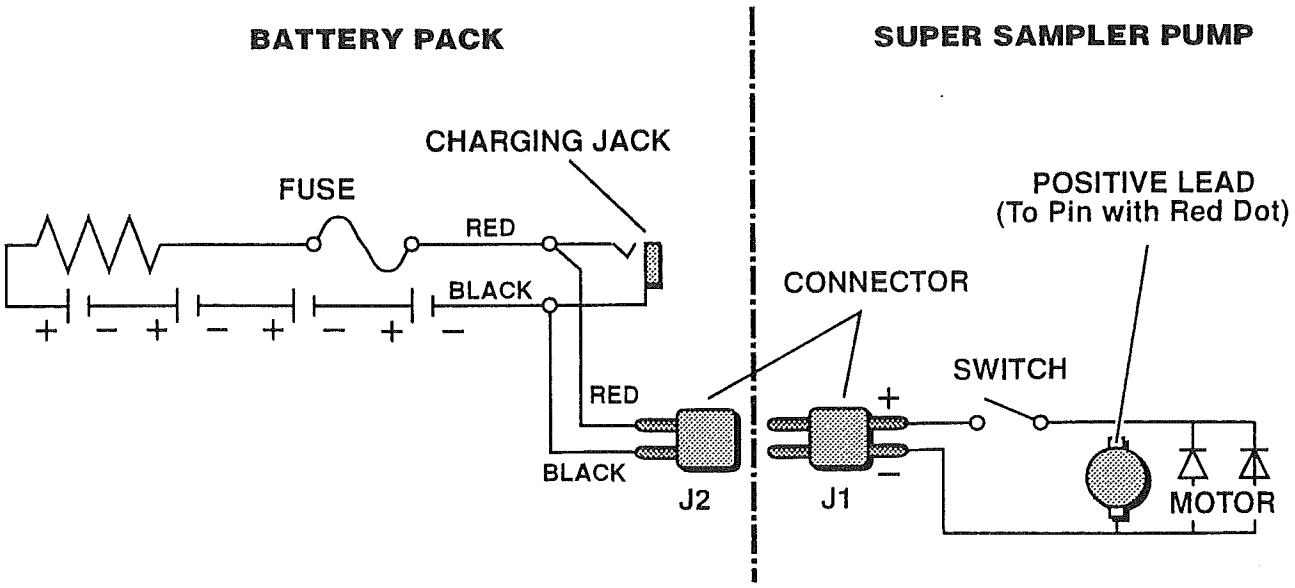


FIGURE 2.1
WIRING DIAGRAM

3.1 BDX 530 MAINTENANCE

Maintenance of the BDX 530 involves checking for blockage and pump capacity as follows:

1) Examine the BDX 530 for physical damage. Ensure that all case components are tight.

2) Turn the FLOW ADJUSTMENT valve clockwise until it is closed.

3) With the battery pack fully charged, push the ON/OFF power switch to start on the BDX 530. The ball in the flowmeter should rise to the top of the flowmeter.

4) If there is no flow, check to see if the pump is not operating properly:

   a) Look for possible breaks in the wiring and for a damaged connector (or connection) between the battery pack and the double diaphragm pump.

   b) Check for gross contamination with dust, mud, etc. If this is the cause of the difficulty, disassemble the pump, clean and/or replace the diaphragms and valves (see **Section 3.4.3 & 3.4.4**), or return the unit to Sensidyne for repair.

3.2 PUMP MODULE

The BDX 530 Pump Module includes the following components:

- Double Diaphragm Pump Assembly (w/ motor)
- Flow Regulator/Pulsation Dampener Assembly
- Mounting Plate Assembly

3.2.1 Pump Module Removal

1) Unscrew the four battery pack mounting screws and remove the battery pack. (On some BDX 530 cases, the mounting screws are captive and cannot be removed entirely.)

NOTE

When removing the battery pack, pull the case halves apart evenly. DO NOT TWIST OR BEND.

2) Remove the mounting plate screw. (The mounting plate screw is located on the back side of the BDX 530 case. It is accessible through a hole in the center of the belt clip.)

CAUTION

ALWAYS keep the mounting plate screw separate from all other screws. DO NOT use it to secure plastic parts, as it may damage them.

3) Slide the Pump Module out of the plastic case. **DO NOT damage any of the latex tubing in the case.**

4) Remove the inlet hose from the flow regulator/pulsation dampener assembly.

NOTE

When removing the inlet hose, note the hose routing to permit proper re-assembly.

5) Place the Pump Module on a flat, clean surface before performing any further maintenance.

3.2.2 Pump Module Re-Installation

1) Connect inlet hose to flow regulator/pulsation dampener assembly. Make certain hose is routed properly.

2) Hold the inlet hose clear and slide the Pump Module in the BDX 530 case.

3) Insert the mounting screw through the access hole in the belt clip and tighten to secure the Pump Module inside the case.

4) Visually align the electrical connectors on the case halves. **Carefully** press the case halves together and secure with the four mounting screws.

NOTE

When replacing the battery pack, press the case halves together evenly. DO NOT TWIST OR BEND.

3.3 DUST FILTER

The dust filter should be replaced whenever it becomes excessively dirty or clogged. To replace the dust filter, do the following:

1) Remove the Pump Module as described in **Section 3.2.1**. Set the module outside the case, taking care not to damage the tubing.

2) Remove the hose from the sample air inlet connector (inside top of case) and from connector leading to the bottom of the flowmeter.

3) Remove the dust filter assembly (with the two attached hoses) from the case.

4) Remove both hoses from the old dust filter assembly. Attach these hoses to the new dust filter. Make certain these connections are secure. If new hoses are needed, use 3/16" [4.8 mm] I.D. latex tubing, each piece cut to 2.25" [57.2 mm] in length.

5) Re-attach the hose ends to the sample air inlet and flow meter connectors. Make certain the connections are secure.

6) Replace the Pump Module as described in **Section 3.2.2**.

3.4 DOUBLE DIAPHRAGM PUMP ASSEMBLY

3.4.1 Pump Assembly Removal

1) Remove the Pump Module as described in **Section 3.2.1**.

2) Remove the pump from the mounting plate assembly by removing the two mounting screws and lockwashers. Set these aside for later re-assembly.

3) Place the double diaphragm pump assembly on a flat, clean surface before performing any further maintenance.

3.4.2 Pump Assembly Re-Installation

1) Install the pump assembly on the mounting plate and secure it with the two screws and lockwashers removed earlier. Make certain each lockwasher is installed properly between the screw and the mounting plate assembly.

2) Re-install the Pump Module as described in **Section 3.2.2**.

3.4.3 Valve Replacement

NOTE

When replacing the pump valves, its advisable to replace the pump diaphragms, as well.

Refer to **Figure 3.1** for parts location and identification of items shown in parentheses.

1) Remove the double diaphragm pump assembly as described in **Section 3.4.1**.

2) Remove the six screws (1) from the manifold (2).

3) Remove the manifold (2) and the gaskets (3).

4) Remove the two retainers (4) by using a pencil, then remove the valves (5) from the manifold (2).

5) Remove the retainers (4) and the valves (5) from both pump heads (6).

6) Install the new valves (5) and replace the retainers (4) in the manifold (2).

NOTE

Check to make certain that each valve flapper (center of valve) is flat against the valve seat. If the valve flapper is not against valve seat, remove and turn valve over and reinstall.

7) Install the new valves (5) and the retainers (4) in both pump heads (6).

8) Position the two gaskets (3) and the manifold (2) on the pump heads (6).

9) Install the six screws (1) in the manifold (2). Tighten the screws (1) until snug, then continue tightening in criss-cross sequence. **Use care when installing and tightening the screws to prevent damage to the threads in the pump heads (6).**

10) Re-install the entire assembly (Pump Module) as described in **Section 3.4.2**.

11) Calibrate the BDX 530 as described in **Section 4.2**.

3.4.4 Diaphragm Replacement

NOTE

When replacing the pump diaphragms, it is advisable to replace the pump valves, as well.

Refer to **Figure 3.1** for parts location and identification of items in parentheses.

1) Remove the Pump Module as described in **Section 3.4.1**.

2) Remove the six screws (1) from the manifold (2).

3) Remove the manifold (2) and the gaskets (3).

4) Loosen the outer socket (Allen) setscrew (8) and remove the motor (9) by pulling outward. If the motor cannot be removed, loosen the inner socket (Allen) setscrew (8).

NOTE

A special Allen wrench is supplied with the BDX 530 for loosening and tightening the socket setscrews.

5) Remove the four screws (7) from each pump head (6).

6) Remove both pump heads (6) from the pump block (10).

7) Place the pump block (1) on a clean flat surface with the diaphragm side down. Hold the connecting rod (11) with the thumb and finger through openings in the pump block (10) and remove the Phillips screw (12). Remove the diaphragm retainer (13) and diaphragm (14).

8) Remove the connecting rod (11) from the pump block (10). Hold the connecting rod (11) with the thumb and finger and remove the Phillips screw (12), diaphragm retainer (13) and diaphragm (14).

9) Place one diaphragm (14) and diaphragm retainer (13) on the connecting rod (11). Insert and tighten the Phillips screw (12). **Use care to prevent distortion on the diaphragm.**

NOTE

Diaphragm must be smooth. NO wrinkles or ripples are permitted.

10) Re-install the connecting rod (11) with the first diaphragm in the pump block (10). The diaphragm must lie in the recessed area of the pump block.

11) Place the pump block (10) on a clean flat surface with the diaphragm side down. Hold the connecting rod (11) with the thumb and finger through openings in the pump block (10) and place the second new diaphragm (14) and diaphragm retainer (13) on the connecting rod (11). Insert and tighten the Phillips screw (12). **Use care to prevent distortion of the diaphragm.**

NOTE

Diaphragm must be smooth. NO wrinkles or ripples are permitted.

---

12) Place the pump head (6) on the pump block (10). Ensure that the diaphragm is in the recessed area of the pump block during assembly and that the flat side of the connecting rod is perpendicular to the motor shaft. Insert and tighten the four screws (7) until snug, then continue tightening in criss-cross sequence. **Use care when installing and tightening the screws to prevent damage to the threads in the pump block (10).** Make certain the connecting rod (11) is free floating.

13) Place the other pump head (6) on the pump block (10). Insert and tighten the four screws (7) until snug, then continue tightening in criss-cross sequence. **Use care when installing and tightening the screws to prevent damage to the threads in the pump block (10).** Make certain the connecting rod (11) is free floating, with the flat side of the connecting rod perpendicular.

14) Re-install the pump motor as follows:

a) Position the pump with the inlet/outlet ports pointing upward.

b) Insert the end of motor (9) with the attached crank assembly (15) into the pump.

c) Rotate the motor shaft until the bearing drops into the connecting rod (11).

NOTE

The BDX 530 pump motor must be positioned so its electrical connections are parallel to the back plate.

---

d) With a pencil, make a mark on the motor body at the point where the motor (9) and the pump block (10) meet.

e) Move the motor (9) out of the pump block 1/32" - 1/16" [0.79 - 1.69 mm] and tighten the setscrew (8). Tighten the inner setscrew, if loosened during motor removal. **Use care when tightening the setscrew to prevent damage to the motor.**

15) Re-place the two gaskets (3) and the manifold (2) on the pump heads (6).

16) Re-install the six screws (1) and the manifold (2). Tighten the screws until snug, then continue tightening in criss-cross sequence. **Use care when installing and tightening the screws to prevent damage to the threads in the pump heads (6).**

17) Replace the entire assembly (Pump Module) as described in **Section 3.4.2.**

18) Calibrate the BDX530 as described in **Section 4.2.**

3.5 PUMP MOTOR REPLACEMENT

Refer to **Figure 3.1** for parts location and identification of items shown in parentheses.

1) Remove the Pump Module as described in **Section 3.2.1**.

2) Remove the pump from the mounting plate by removing the two mounting screws and lockwashers. Set these aside for later re-assembly.

3) Unplug the electrical leads at the motor and remove the ty-wrap securing the wires to the motor case.

4) Loosen the outer socket (Allen) setscrew (8) and remove the motor (9). If the motor cannot be removed, loosen the inner socket (Allen) setscrew (8). Discard old motor.

NOTE

A special Allen wrench is supplied with the BDX 530 for loosening and tightening the socket setscrews.

5) Install the new motor as described in **Section 3.4.4, Step 14**.

6) Attach the electrical leads to the connectors on the motor top and use the ty-wrap to secure the wires to the motor case. (Attach the red lead to the connection with the red mark.)

7) Install the pump assembly on the mounting plate and secure it with the two screws and lockwashers removed earlier. Make certain each lockwasher is installed properly between the screw and the mounting plate assembly.

8) Replace the entire assembly (Pump Module) as described in **Section 3.2.2**.

9) Calibrate the BDX 530 as described in **Section 4.2**.

3.6 PUMP CRANK BEARING REPLACEMENT

Refer to **Figure 3.1** for parts location and identification of items shown in parentheses.

1) Remove the Pump Module as described in **Section 3.2.1**.

2) Remove the pump from the mounting plate by removing the two mounting screws and lockwashers. Set these aside for later re-assembly.

3) Unplug the electrical leads at the motor and remove the ty-wrap securing the wires to the motor case.

4) Loosen the outer socket (Allen) setscrew (8) and remove the motor (9). If the motor cannot be removed, loosen the inner socket (Allen) setscrew (8).

NOTE

A special Allen wrench is supplied with the BDX 530 for loosening and tightening the socket setscrews.

5) Loosen the setscrew (16) at the crank and remove the crank assembly (15) with the attached bearing.

6) Install the new crank assembly (15) on the shaft of the motor (9). Apply Loctite to the setscrew (16) and tighten.

CAUTION

Use care when applying Loctite. Loctite will damage plastic parts.

7) Re-install the motor as described in **Section 3.4.4, Step 14**.

8) Attach the electrical leads to the connectors on the motor top and use the ty-wrap to secure the wires to the motor case. (Attach the red lead to the connection with the red mark.)

9) Install the pump assembly on the mounting plate and secure it with the two screws and lockwashers removed earlier. Make certain each lockwasher is installed properly between the screw and the mounting plate assembly.

10) Replace the entire assembly (Pump Module) as described in **Section 3.2.2**.

11) Calibrate the BDX 530 as described in **Section 4.2**.

3.7 PULSATION DAMPENER: FINGER COT REPLACEMENT

1) Remove the Pump Module as described in **Section 3.2.1**.

2) Remove the flow regulator/pulsation dampener assembly mounting screw (refer to **Figure 1.3**).

3) Remove the flow regulator/pulsation dampener assembly by pulling upward to disconnect the pump hose (the short hose between the flow regulator/pulsation dampener assembly and the pump).

4) Remove the finger cot from the wire frame.

5) Roll the end of the new finger cot over the wire frame and carefully install the rolled end of the finger cot in the seat of the regulator block.

6) Place the flow regulator/pulsation dampener assembly on the mounting plate so the outlet fitting mates with the pump hose. Insert and tighten the mounting screw to secure the flow regulator/pulsation dampener assembly.

7) Replace the entire assembly (Pump Module) as described in **Section 3.2.2**.

8) Calibrate the BDX 530 as described in **Section 4.2**.

3.8 FLOWMETER MAINTENANCE

Flowmeter maintenance may be required in the event the flowmeter ball appears to be sticking.

Material Required:

- Pipe Stem Cleaners
- Isopropyl Alcohol
- Tissue cleaning paper (preferably lint-free)

When performing the following procedure, identify the parts removed and retain them for re-installation.

1) To clean the interior of the flowmeter, remove the top and bottom hex plugs.

2) Remove the flowmeter ball (retain for re-installation).

3) Dip a new pip stem cleaner into the isopropyl alcohol solution. Shake off the excess alcohol.

4) Feed the dampened pipe stem cleaner once through the flowmeter, starting from the top. **Do not re-use this pipe stem cleaner.**

5) If additional cleaning is necessary, repeat Steps 3 and 4, above.

6) To remove any excess alcohol and lint from the flowmeter, feed a dry pip stem cleaner once through the top of the flowmeter.

7) Dip the flowmeter ball in alcohol and dry with a clean tissue.

CAUTION

When installing plugs in the flowmeter, use care to prevent damage to the flowmeter threads.

8) Insert and tighten the bottom plug on the flowmeter.

9) Place the cleaned ball in the flowmeter.

10) Insert and tighten the top plug on the flowmeter.

11) Calibrate the BDX 530 as described in **Section 4.2.**

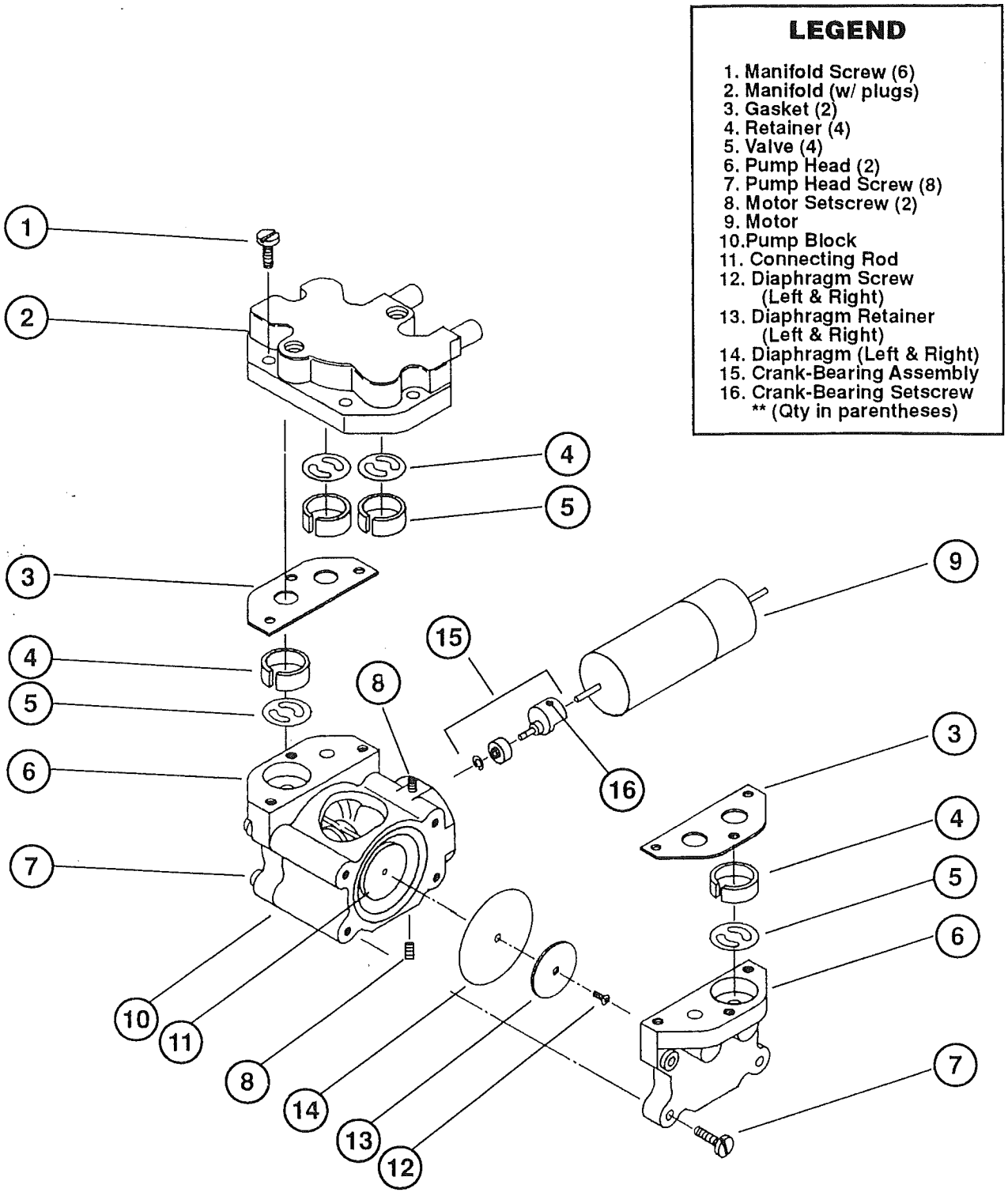


FIGURE 3.1
DOUBLE DIAPHRAGM PUMP ASSEMBLY: EXPLODED VIEW

4.1 PRELIMINARY INSTRUCTIONS

The BDX 530 is factory calibrated at 2 LPM at 14" [356 mm] of water. Calibration should be checked at intervals no greater than 200 hours of operating time. The battery must be fully charged and the BDX 530 must be checked as indicated in **Section 3.1**. If calibration cannot be achieved, return the unit to Sensidyne for service.

4.2 CALIBRATION PROCEDURE

Use the equipment shown in **Figure 4.1**.

1) Connect the BDX 530 to the Tee fitting with the **same tubing used during normal operation. (Use this same type of tubing throughout the calibration procedure).**

2) Run a short piece of tubing between the Tee fitting and the pressure gauge (or water manometer).

3) Run a second short piece of tubing between the Tee fitting and the needle valve.

4) Run a third short piece of tubing between the needle valve and the Sensidyne EZ Cal® Digital Flowmeter (or other soap film flowmeter).

5) Push the ON/OFF power switch to start the unit.

6) Adjust the needle valve as necessary until the pressure (or water manometer) indicates 14" [356 mm] of water.

NOTE

More accurate calibration can be achieved by placing the sampling media (e.g. a filter) in-line, or by simulating its resistance by adjusting the needle valve until the Water Manometer indicates the approximate pressure drop across the filter media being used:

0.45 µ (37 mm)	*15 " (381 mm) H_2O*
0.8 µ (37 mm)	*7 " (178 mm) H_2O*
0.8 µ (25 mm)	*14" (356 mm) H_2O*

7) If your are using an EZ Cal® Flowmeter, follow the instructions in the ***Operation Manual*** to verify a flowrate of 2 LPM. If your are using a simple bubble flowmeter, do the following:

   Introduce the soap solution at the base of the soap film flowmeter to start a bubble rising in the tube. As the bubble passes the zero mark, start the stopwatch. As the bubble passes the 1-liter mark, stop the watch. The elapsed time for 1 liter shall be 30.00 (± 3.0) seconds. If the elapsed time for 2 LPM is not within this tolerance, accurately adjust the flow adjustment valve on the BDX 530 (**Figure 4.1**) until 30.00 (± 3.0) seconds is obtained.

8) Take an average of three readings at 2 LPM.

9) When the 2 LPM setting is verified, attach a new red calibration label parallel to the center of the ball in the flowmeter.

10) Push the ON/OFF power switch to stop the unit. Disconnect the BDX 530 from the calibration equipment.

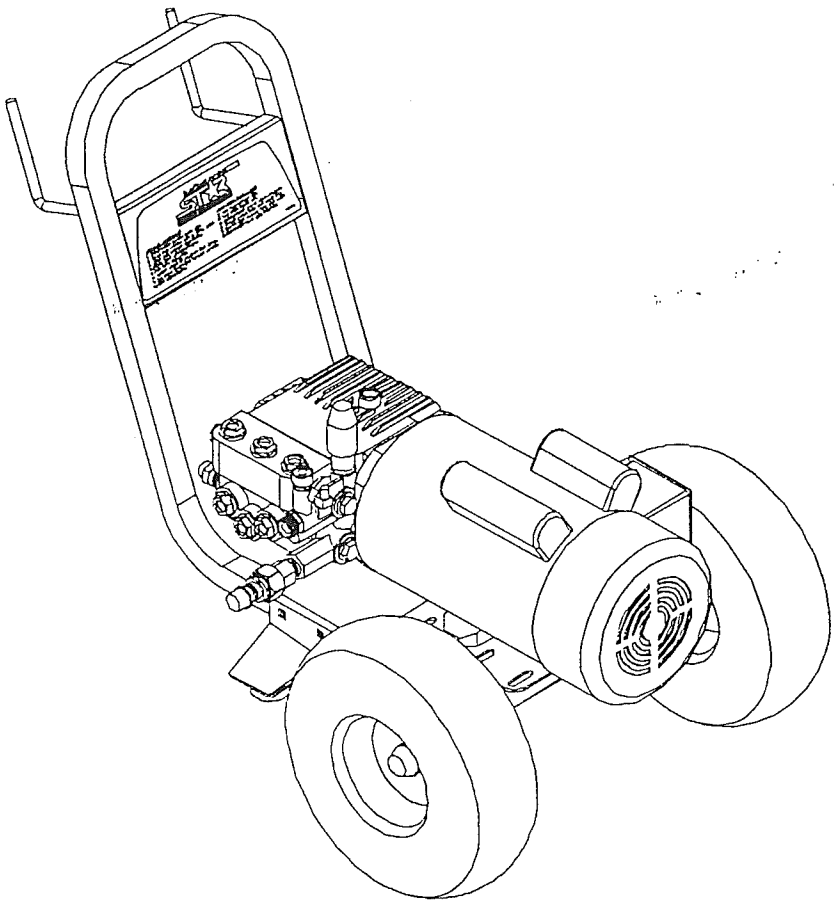
Record all information: date, operator, flowmeter setting, barometric pressure, and temperature (if available). A blank "Caibration Record" form is provided at the end of this section for your convenience. This completes the calibration.

Typical performance curves are provided to aid in the evaluation of the BDX 530 when used under different inlet resistances and inlet sample airflow settings (Refer to **Figure 4.2**).

NORTH STAR

Proven Performance

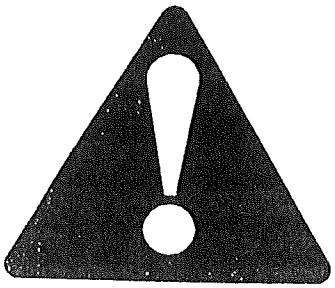
Owner's Manual



Read and understand this manual before operating this machine.

Do not run the pressure washer before turning on the water supply.

Safety Instructions



Read and understand these instructions because they deal with safety. Pay particular attention to this safety symbol throughout this manual. Failure to comply with these instructions may result in property damage, personal injury, or death.

IMPORTANT
United States Government safety standards have been adopted under the Occupational Safety and Health Act. These standards, particularly the General Standards, Part 1910, and the Construction Standards, Part 1926, should be consulted whenever using airless spray equipment.

NEVER point the spray nozzle at people or animals. The high pressure the machine generates is very dangerous.

ALWAYS seek emergency medical care if any fluid penetrates the skin. The cut may be deeper and more serious than it appears.

NEVER put hands or fingers over the tip of the spray nozzle.

ALWAYS plug the machine into a three prong outlet that is properly grounded. Improper grounding can result in electric shock.

NEVER use an extension cord. Longer, lighter cords will cause low volts and high amps.

NEVER use your hands to stop or detect leaks.

NEVER spray flammable liquids or toxic chemicals such as weed killer or insecticide.

NEVER allow children to operate or play on or around the machine.

ALWAYS wear safety glasses and appropriate clothing when operating the machine.

NEVER operate the machine in or around an explosive environment.

ALWAYS locate the machine so it is protected from external damage.

ALWAYS place the machine on a level surface.

NEVER operate the machine with broken or missing parts.

NEVER alter the machine from the manufacturer's original design.

ALWAYS keep all safety devices active on the machine.

ALWAYS follow the chemical manufacturer's instructions when using chemicals.

ALWAYS understand all safety precautions and first aid for any chemicals being used.

NEVER exceed the pressure or temperature ratings of the system. Be sure all accessory equipment used will withstand the system pressure.

ALWAYS keep the pressure hose connected to the machine and the spray gun while the system is pressurized.

NEVER move them machine by pulling on the hose.

NEVER secure the spray gun in the "ON" or "SQUEEZED" position.

Safety Instructions

NEVER use the machine when under the influence of alcohol or any other drug.

NEVER smoke while operating or fueling this machine. Only add fuel to the machine when the power is OFF.

NEVER attempt to clean the machine with its own spray. Cleaning should be done with a damp sponge with the power OFF.

NEVER leave an operating machine unattended. Always shut the motor OFF and relieve the pressure before leaving the machine.

NEVER let the pump run without water flowing through the machine.

ALWAYS respect and be alert to the potential hazardous high pressure spray.

ALWAYS keep machine decals clean and legible, replace any decals that become damaged or lost.

NEVER route hoses in a manner that will cause sharp bending, kinking, cutting, abrasion, or other damage from vehicles or falling objects..

NEVER use a hose if exterior damage is evident.

NEVER attempt field repairs through an unauthorized hydraulic hose repair shop. Replace any damaged hoses.

ALWAYS use water that is clear and free of particles.

NEVER run preheated water over 140° F into the machine.

ALWAYS check and maintain proper oil levels in the pump and motor.

NEVER operate the machine with insufficient water supply to the pump. Damage occurs to the pump if run with an insufficient water supply.

ALWAYS protect your machine from freezing during storage as described in this manual.

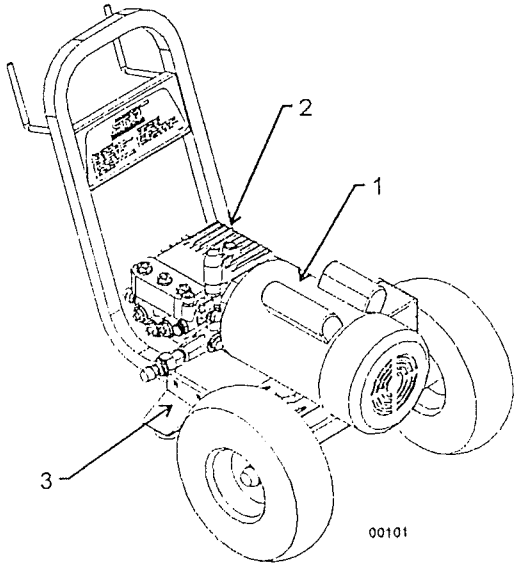
ALWAYS follow all other guidelines and safety instructions as described in this manual.

Any Questions?
Call 1-800-270-0810
Customer Service

Specifications

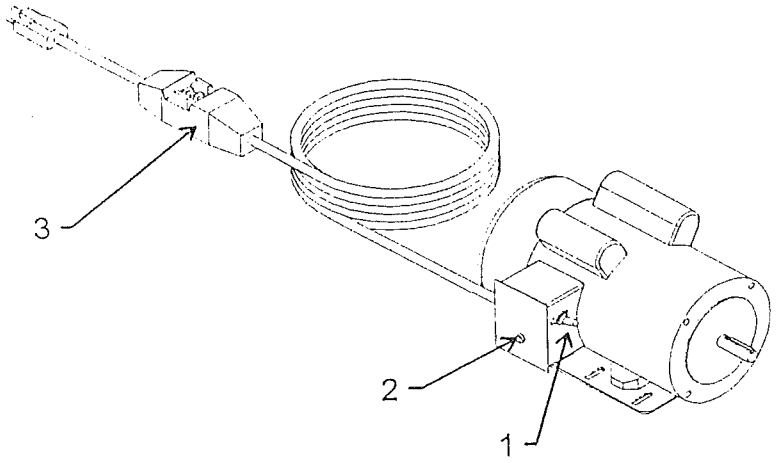
Item Number	#157555
Pressure Rating (psi)	1500
Flow Output (gpm)	2
Pump Type	Triplex Ceramic Plunger
Water Supply	Standard tap water @ 20-100psi
Motor Horsepower	2
Voltage	115
Amp Draw	18.5
Discharge Hose	3/8" x 30'
Dimensions	
Length	28"
Width	19.5"
Height	24"
Approximate Weight	90 lb.

Machine Component Identification



1.	Motor
2.	Pump
3.	Cart

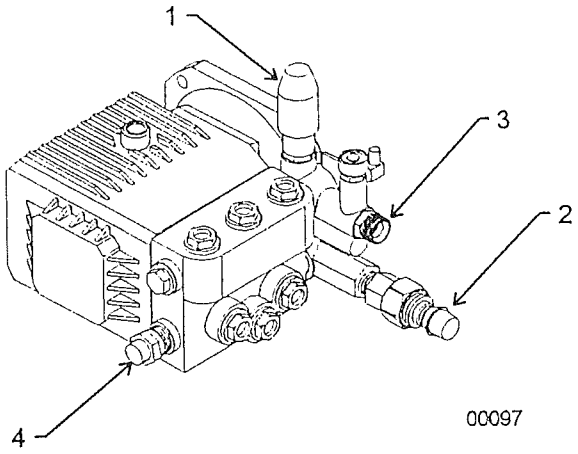
Machine Component Identification



1.	On/Off Switch
2.	Thermal Switch Reset Button
3.	Ground Fault Interruptor (GFI)

Motor Features	Benefits
•Totally Enclosed Fan Cooled (TEFC)	*•For dirty or corrosive environments*
•Energy efficient design	*•Reduces operating costs*
•Double sealed anti-friction ball bearings	*•Longer life*
•Double dipped and baked stator core	*•Resist corrosion*
•Protective coatings on brackets and rotor core	*•Resist corrosion*

Machine Component Identification



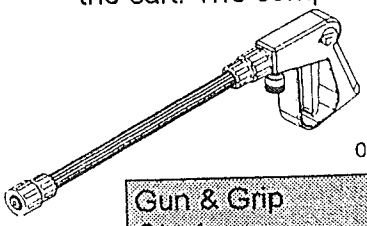
1.	Unloader Valve
2.	Inlet
3.	Outlet
4.	Thermal Protector

Pump Features	Benefits
•Triplex design	*•Less vibration*
•Industrial Crankcase	*•Longer life*
•Ceramic Plungers	*•Longer life*
•Quick Couple Inlet	*•Easy connection*
•Quick Connect Outlet	*•Attaches without tools*
•Thermal Relief Valve	*•Protects pump from hot by-pass water*

Assembling the Machine

Step 1

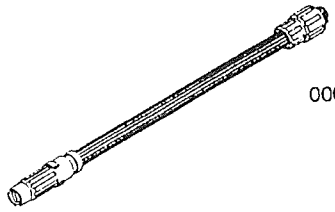
Your pressure washer is shipped in two boxes. Separate and identify the components found in both boxes. Use the assembly instructions found in the cart box to assemble the cart. The components shown below will be in the same box as the motor/pump.



00085

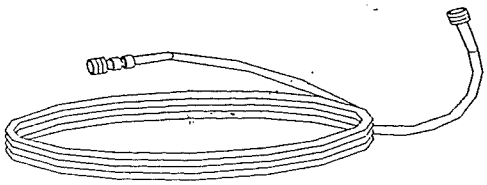
Gun & Grip
Qty-1

Garden Hose Quick Couple Socket
Qty-1



0000086

Lance Extension with Idrojet
Qty-1



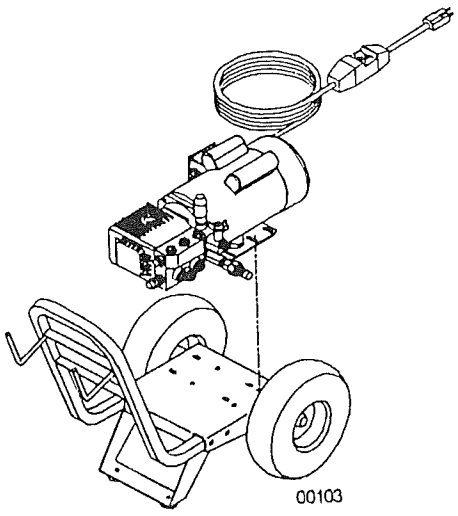
Hose, Quick Couple
Qty-1

Step 2

You will need the following tools to fasten the pump/motor to the cart.

1. 1/2" socket with ratchet
2. 1/2" open end wrench

The cart comes with four (4) 5/16" x 3/4" bolts, (4) 5/16" nuts, (8) 5/16" washers to be used to fasten the cart to the motor. Use the holes shown below to mount the motor.



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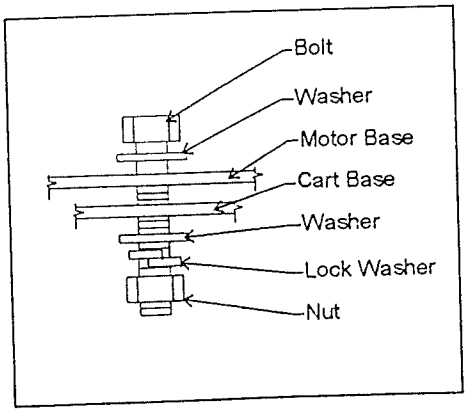
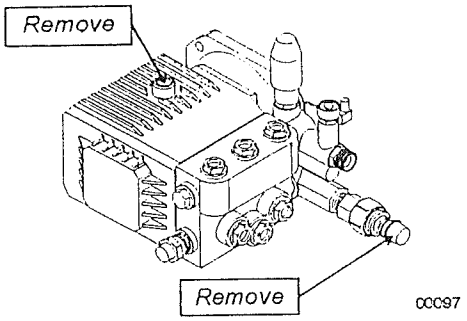


Fastener Detail

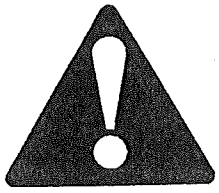
Before Using the Machine the First Time

Remove pump shipping plugs.

1. Remove the red plug from the water inlet and discard.
2. Remove the red plug from the oil fill hole and replace it with the vented dipstick.



Setting-Up the Machine



Read and understand the entire manual before operating the pressure washer. Follow the checklists below every time you use the pressure washer.

Pre-Operation Checklist

☑ 1.) Position the machine for easy access to all controls, power, and water supply.
☑ 2.) Position the machine on a solid level surface.
☑ 3.) Check the electic capacity. Make sure it is 115V and 20 Amps.
☑ 4.) Check for worn or damaged equipment. Replace if necessary.
☑ 5.) Check and clean the nozzle orifice.
☑ 6.) Check and clean the water inlet screen and filter.

Water Supply Checklist

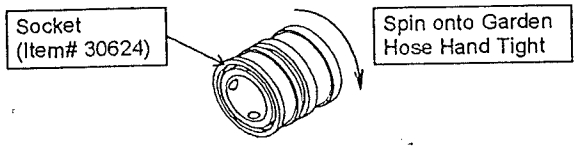
☑ 1.) Make sure the water supply is clean. Debris can cause excess pump wear and reduce performance.
☑ 2.) An insufficient water supply will damage your pump. Make sure the water supply is steady and is more than 2.5 gpm. If you can fill a 1 gallon bucket in less than 24 seconds, you have a sufficient water supply.
☑ 3.) The water supply garden hose must have an inside diameter of at least 5/8". If the hose is more than 100 ft. long, the diameter must be at least 3/4".
☑ 4.) Never use a reservoir tank as a water source. This pressure washer is designed for a pressurized water source such as a city water faucet. Sucking water out of a tank may cause pump cavitation and damage to your pump.
☑ 5.) Always use a flexible rubber hose for your water supply. Do not use rigid piping.

Make sure to follow the pre-operation checklist and water supply checklist on the previous page before proceeding.

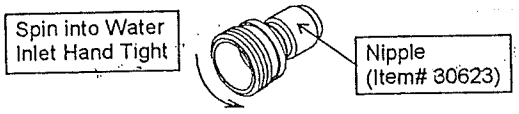
I.) Attach a Garden Hose

Your pressure washer is equipped with a garden hose quick couplers. Follow these steps to use the quick couplers.

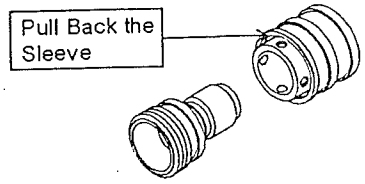
A.) Spin the socket onto your garden hose.



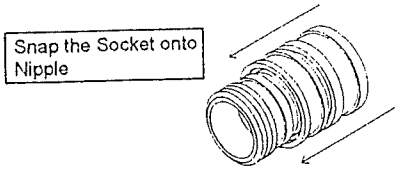
B.) Spin the nipple into the machine's water inlet (the nipple may already be spun into your water inlet).



C.) Pull back the sleeve on the socket.



D.) Snap the socket onto the nipple.

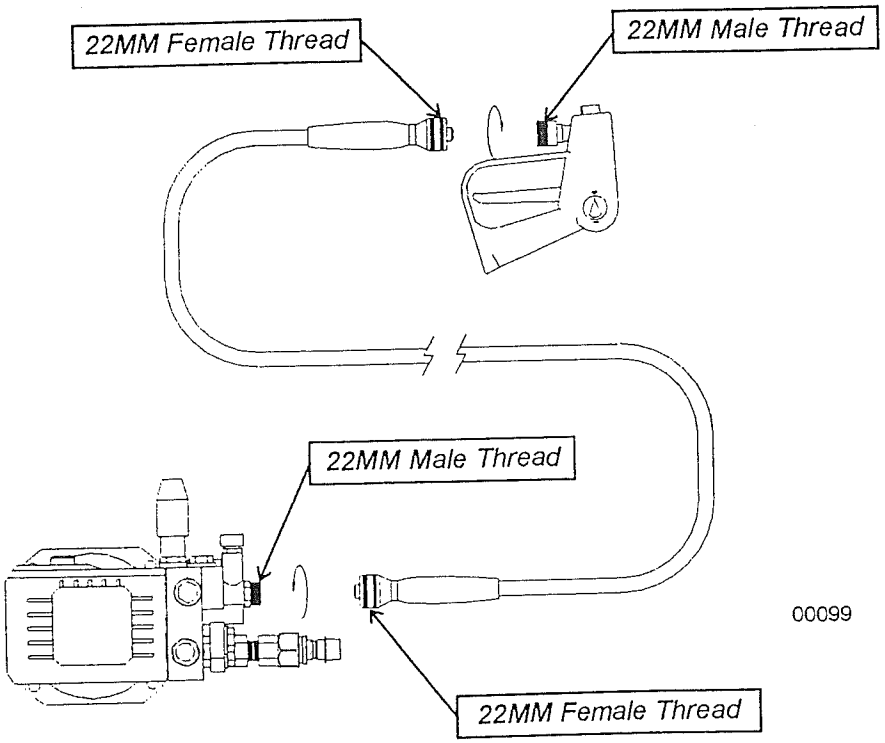


II. Attach the Pressure Hose

Specifications:

Length	30 feet
Inside Diameter	3/8 inch
Maximum Pressure	3000 psi
Reinforcement	1 wire
Bend Radius	6 inches
Material	Neoprene

Your pressure hose is equipped with 22MM thread-on quick couplers on both ends. One end threads onto the pump outlet and the other threads onto the gun inlet. The o-ring seals the connection so you only have to tighten the quick coupler hand tight.



We use 22MM thread-on quick couplers for a number of reasons:

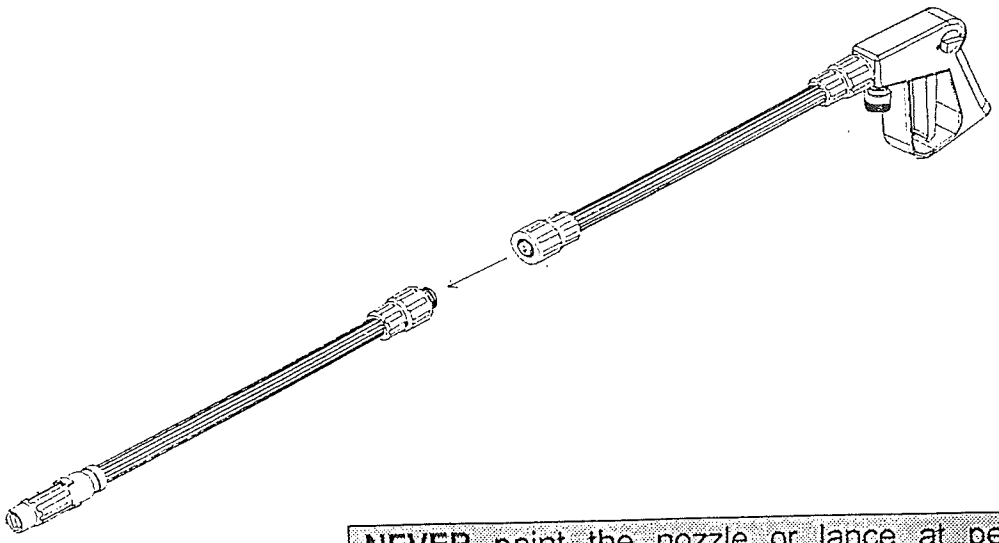
1.) It is an industry standard so they will work with many other machines.
2.) They handle side torque better resulting in fewer leaks.
3.) The o-rings last longer so they require less maintenance.
4.) They are safer because they provide a more definite connection.

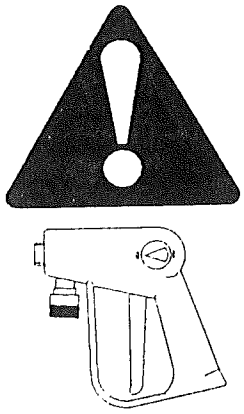
III.) Connect the Lance

Your spray lance has the following features and benefits:

Features	Benefits
•3 foot length	•*Longer reach* •*Meets UL safety standard*
•Splits in the middle	•*Quick accessory changes* •*Ships in smaller box* •*Less shipping damage*
•Rubber grip	•*Comfort*

Connect the lance together using the 22MM thread-on quick coupler. The o-ring seals the connection so you only have to tighten the coupler hand tight.





NEVER point the nozzle or lance at people or animals. The high pressure the machine creates is very dangerous.
ALWAYS keep the high pressure hose connected to the machine and the spray gun while spraying water.

Your spray gun is equipped with a built-in trigger safety knob to guard against accidental trigger release and potentially dangerous high pressure spray. Rotate the knob to the "0" position while not spraying.

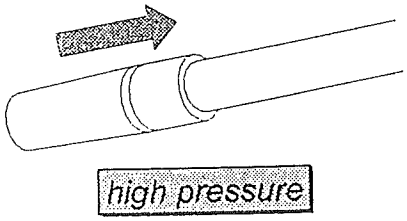
IV.) Turn the Water Supply ON

Make sure the hose is not "kinked". A kinked hose will provide insufficient water supply to the pump and will reduce its life. Make sure the hose remains unkinked after moving the pressure washer.

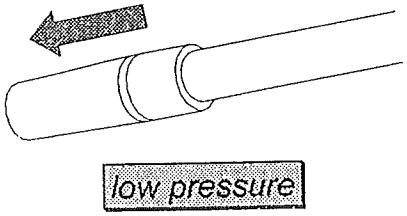
V.) Squeeze the Trigger

Squeeze the trigger until a steady flow of water sprays out the nozzle. Make sure all the air is out of the hoses before running the pressure washer. This step is very important, it will prolong the pump's life. NEVER run the pump dry.

You can change between high and low pressure by pushing or pulling the adjustable nozzle. Pull the nozzle back for high pressure. Push the nozzle forward for low pressure. You need to change to low pressure if you want to spray chemicals onto the cleaning surface.



high pressure



low pressure

VI.) Start the Motor

Plug the power cord into a grounded 115 Volt, 20 Amp Outlet and hit the "reset" button on the GFCI.

Flip the motor On/Off switch to the "ON" position.

Once the motor is started, begin cleaning.

Shut-Down Instructions

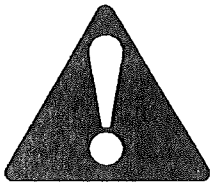
I.) Turn the motor OFF.

II.) Turn the water supply OFF.

III.) Squeeze the spray gun trigger to relieve the system pressure.

IV.) Remove the water supply garden hose from the pump inlet.

V.) Remove the high pressure hose from the pump outlet.

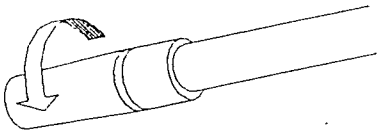


NEVER disconnect the high pressure hose from the pump or spray gun while the system is pressurized. Depressurize the system by squeezing the spray gun trigger after the motor is turned OFF.

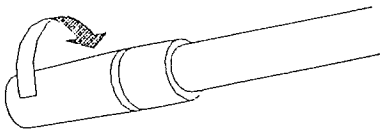
I.) Spray Angle

Your pressure washer is equipped with a 0 to 80° adjustable nozzle designed to tackle a variety of cleaning jobs. Generally, narrow spray angles have greater cleaning impact, wider angles cover large areas in less time. Use small angles for the toughest cleaning jobs. Use wide spray angles for rinsing large surfaces and water sweeping.

Change the spray angle by turning the adjustable nozzle counter-clockwise for narrow angles and clockwise for wide angles.



narrow angles



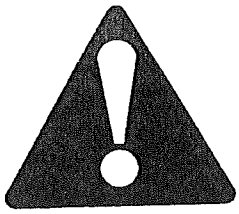
wide angles

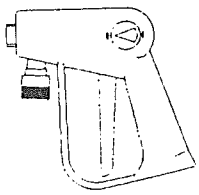
II.) General Cleaning

a.) Adjust the nozzle's spray angle for your application

b.) Hold the nozzle 6" to 12" from the cleaning surface.

c.) Use long, slow, deliberate strokes from side to similar to using a paint sprayer. This technique will provide the most effective cleaning impact and minimize streaks and skips in the cleaning surface.





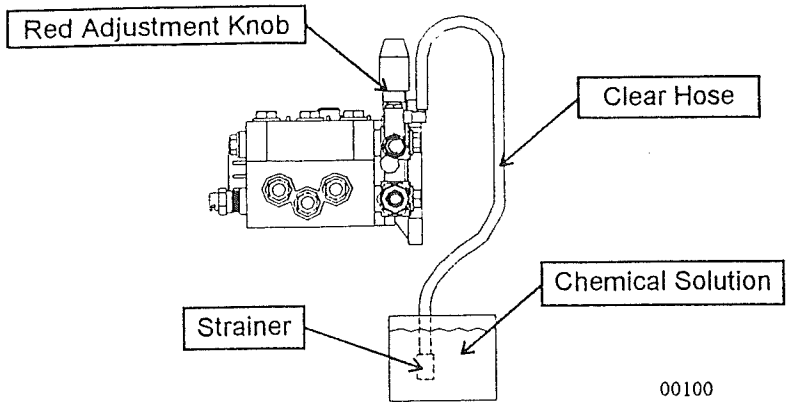
NEVER point the nozzle or lance at people or animals. The high pressure the machine creates is very dangerous.
ALWAYS keep the high pressure hose connected to the machine and the spray gun while spraying water.

Your spray gun is equipped with a built-in trigger safety knob to guard against accidental trigger release and potentially dangerous high pressure spray. Rotate the knob to the "0" position while not spraying.

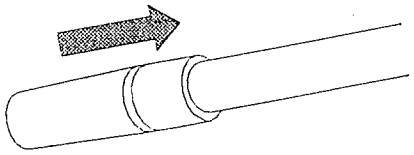
III.) Applying Chemicals

a.) Attach the clear hose to the hose barb fitting located on the pump near the outlet port.

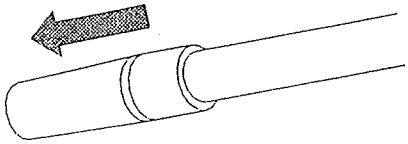
b.) Submerge the suction strainer in a chemical solution.



c.) Adjust the nozzle holder to low pressure by pushing the adjustable nozzle out. You need to change to low pressure if you want to spray chemicals onto the cleaning surface.



high pressure



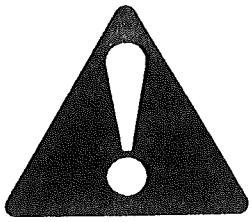
low pressure

d.) Adjust the red adjustment knob to increase or decrease chemical. Follow the chemical manufacturers recommendations for the proper mixture of water to chemical.

e.) Squeeze the spray gun trigger. The chemical injector will draw the chemical into the water stream

f.) Apply chemicals evenly to the cleaning surface. Allow the chemicals to react with the dirt, then rinse at high pressure.

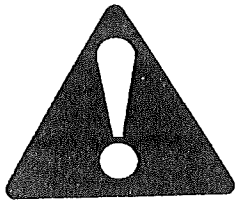
g.) Never use more chemical than is necessary to clean the surface.



ALWAYS follow the chemical manufacturer's recommendations when using chemicals in the chemical injector.
ALWAYS understand all safety precautions and first aid for the chemicals being used.

IV.) Adjusting the Unloader Valve

The unloader valve determines the operating pressure of the pump. You can adjust the pressure by turning the black knob. However, the unloader is factory pre-set to the maximum system pressure.



NEVER alter the unloader valve from the manufacturer's design. Excess pressures could cause serious injury and/or pump damage. Any alteration other than turning the black knob will void your warranty.

V.) Thermal Protector

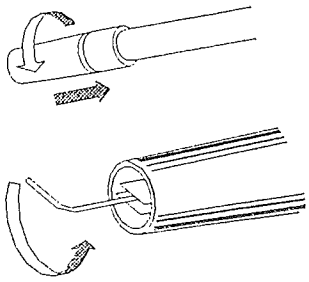
The thermal protector or "pump saver" valve protects your pump from overheated water. When the spray gun trigger is released, the pump **DOES NOT** stop pumping. Water is recirculated through the unloader valve and by-pass hose. The recirculating water heats up quickly. The thermal protector senses the temperature of the water and discharges it at 140°F preventing pump damage.

I.) Cleaning and Changing the Nozzle Orifice

The nozzle orifice has a small hardened stainless steel body. It is located inside the adjustable nozzle between the two thin metal plates. Follow these steps to remove the nozzle orifice.

1.) Pull the adjustable nozzle back and turn counter-clockwise spreading the metal plates.

2.) Remove the nozzle orifice by unscrewing with a 2mm allen wrench.



3.) Clean the nozzle by blowing with air.

4.) Replace the nozzle orifice if it is worn.

II.) Pump Maintenance

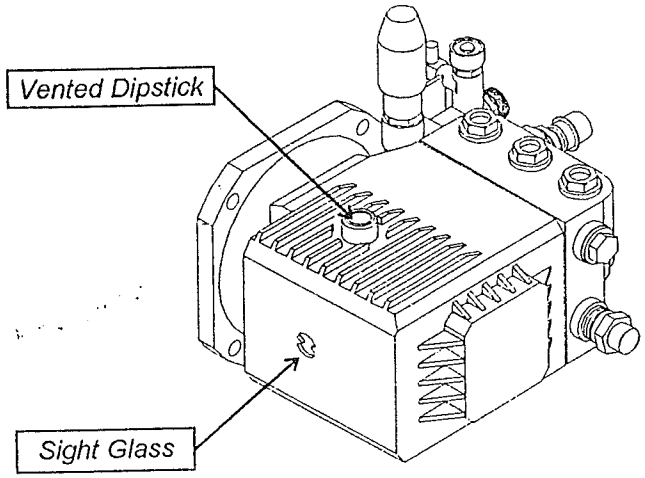
Refer to the pump manual for complete maintenance schedule and pump component identification.

	SERVICE PERIOD		
ITEM	EACH USE	FIRST 40 HRS	EVERY 3 MO. OR 500 HRS
PUMP OIL-CHECK LEVEL	X		
PUMP OIL-CHANGE		X	X
INLET SCREENS-CHECK & CLEAN	X		
FITTINGS-CHECK FOR LEAKS	X		
NOZZLE-CHECK & CLEAN*	X		

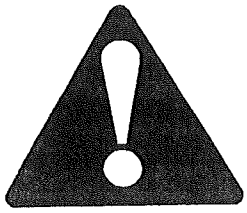
*Use a pin to dislodge any debris in the nozzle orifice.

III.) Changing the Pump Oil

1.) Place an oil pan or container beneath the pressure washer cart.
2.) Drain the old oil by removing the oil plug found under the pump.
3.) Replace the oil plug.
4.) Remove the vented dipstick and fill with oil until half way up the sight glass.
5.) Use a NON-DETERGENT SAE 30W oil (Item# 4043).
6.) Replace the vented dipstick.



Winterizing the Pressure Washer



Follow these instructions to prevent the pump from freezing during storage.
During cold weather, store the pressure washer indoors and move it outdoors before starting the motor.

1.) Disconnect the high pressure hose. Make sure all water is drained from the hose, gun, and lance.

2.) Combine 1 gallon of water with one gallon of antifreeze in a pail. Elevate the pail so it is higher than the pump.

3.) Attach a short garden hose (4-5 ft. long) to the pump inlet. Submerge the other end in the antifreeze solution.

4.) Point the water outlet away from people or animals. Run the pressure washer until antifreeze discharges from the pump outlet. Immediately turn the motor OFF. The pressure washer is ready for storage.

5.) After storage, run clean water through the pressure washer until the antifreeze is removed. Spray the antifreeze where it will not be harmful to the environment, people, or animals.

Troubleshooting

LOW/SURGING PRESSURE

Causes	*Solutions*
Plugged nozzle	Remove nozzle, check for blockage and clean if necessary
Worn nozzle	Replace nozzle (#3.0)
Plugged inlet screen	Pull screen out carefully and clean
Unloader valve malfuncation	Repair unloader
Restrictive water supply	Use larger diameter water supply hose and/or hose fittings
Insufficient flow of water to the pump	Increase water flow. Check for kinked or pinched water supply hose.
Leak in high pressure hose	Check connecions. Replace if cracked or punctured.

NO CHEMICAL INJECTION

Causes	*Solutions*
Operating at high pressure	Push nozzle forward for low pressure
Back presure from extra long hose	Don't use additional hose. Use larger chemical nozzle.
Leak in clear chemical hose	Replace hose. Use hose clamps to seal the hose around hose barbs
Chemical strainer not submerged in chemical solution	Make sure strainer is completely submerged in solution

Tripped Circuit Breaker

Causes	*Solutions*
Voltage too low	Make sure voltage is 115V
Extension cord too long, light	Do not use extension cord

For Customer Service Call 1-800-270-0810

3/8 High Pressure Hose

- 3000 psi rating
- Neoprene
- One-wire braid reinforcement
- Bend restrictors prolong hose life

Item#	Length	Ship Wt.
2203	30'	7 lbs.
156992	50'	10 lbs.
156993	100'	20 lbs.

High psi Screw-Type Quick Couplers

- Quick Coupler #2211 quickly spins onto Brass Plug #2210

Item #	Description	Ship Wt.
2210	Brass Plug	1 lb.
2211	Quick Coupler	1 lb.

Dual Lance Spray Wand

- Turn hand grip to switch from high to low psi
- 1/4" Male Pipe threads into spray gun
- Two 1/4" Female openings for nozzles or quick coupler (ordered separately)

Item# 2228 Ship Wt. 4 lbs.

Telescoping Wands

- Accepts 1/4" Male thread nozzle (order separately)
- Choose from 12ft, 18 ft, and 24 ft. models
- Wand is made from aluminum and fiberglass

Item #	Length	Ship Wt.
22771	4 to 12 ft.	10 lbs.
22703	7 to 18 ft.	14 lbs.
22702	9 to 24 ft.	18 lbs.

Rotating Turbo Nozzle

- Rotating 0°nozzle gives your pressure washer twice the cleaning performance
- Quick couples to spray gun after the grip

Item# 2836 Ship Wt. 6 lbs.

Chemical Nozzle w/ 1/4" Male Thread

- Fits Dual Lance #2228

Item# 2229 Ship Wt. 1 lb.

Pressure Washer Pump Oil

- SAE-30 weight non-detergent oil
- One quart resealable plastic container

Item# 4043 Ship Wt. 3 lbs

Low psi Garden Hose Quick Coupler

- Set includes nipple and mating ball coupler
- Nipple screws into inlet on pump
- Brass coupler screws onto garden hose

Item# 50400 Ship Wt. 1 lb.

High Pressure Sand Blast Kit

- Quick couples to spray gun after the grip
- Includes steel nozzle, 18" sand probe, 20" lance extension, and 13½" sand suction hose

Item# 2260 Ship Wt. 5 lbs.

Chemicals for Pressure Washers

- All North Star chemicals are biodegradable
- All concentrated chemicals sold in one gallon containers

Item#	Description	Mix Ratio	Ship Wt.
22201	Liquid Detergent	256:1	10 lbs.
22207	Degreaser/Cleaner	128:1	10 lbs.
22209	Carnauba Wax/Rinse	100:1	10 lbs.
22213	Vehicle Wash	128:1	10 lbs.

Nozzle Quick Couplers

- Accept all quick couple nozzles
- 3500 psi max. rating
- #2308 fits dual lance #2228

Item#	Thread Style	Ship Wt.
2307	1/4" Female	1 lb.
2308	1/4" Male	1 lb.

Chemical Quick Couple Nozzle

- Lowers Pressure for Chemical Application
- Fits #2307 and #2308 Quick Couplers

Item# 2306
Ship Wt. 1 lb.

1998 ASBESTOS ABATEMENT PROJECTS

JOB:	CONSULTANT:
Tyndall Air Force Base Tyndall AFB, Florida $35,124.00	Southern Earth Sciences Panama City, Florida Mike Varner 1-850-769-4773
Vanguard Bank Pensacola, Florida $17,147.50	2 WR/Architects, Inc. Montgomery, Alabama Ed Pettijohn 1-334-263-6400
Palmetto HIgh School Palmetto, Florida $6,466.25	Apollo Environmental Gibsonton, Florida 1-813-671-3999
Ft. Walton Bch. Housing Authority Ft. Walton Bch. Florida $61,323.00	North Florida Environmental Tallahassee, Florida Scott Megary 1-850-906-9377
Chipley Housing Authority Chipley, Florida $144,000.00	GLE Associates Decatur, Georgia 1-404-373-3844
Palmetto High School/Phase II Palmetto, Florida $4,614.00	Apollo Environmental Gibsonton, Florida 1-813-671-3999
Beall's Store West Bradenton, Florida $27,724.45	Purity Environmental Tampa, Florida 1-813-664-0102 Ronald McDonald
Sunset Place Apartment St. Petersburg, Florida $27,724.45	Purity Environmental Tampa, Florida 1-813-664-0102 Ronald McDonald
Escambia High School Pensacola, Florida $35,000.00	Law Engineering, Inc. 3355 McLemore Drive Pensacola, Florida 32514 1-850-857-0606 Greg Henley
Naval Air Station Jacksonville, Florida $63,750.00	North Florida Environmental Tallahassee, Florida Scott Megary 1-850-906-9377

1998 Continued

Florida State Hospital Chattahoochee, Florida $19,000.0	North Florida Environmental Tallahassee, Florida Scott Megary 1-850-906-9377
Bay County School Board Panama City, Florida $37,546.00	Southern Earth Science Panama City, Florida Mike Varner 1-850-769-4773
Florida Mining Panama City, Florida $8,280.00	Southern Earth Science Panama City, Florida Mike Varner 1-850-769-4773
Hurlburt Field Hurlburt Field AFB, Florida $60,244.00	North Florida Environmental Tallahassee, Florida Scott Megary 1-850-906-9377
Okaloosa School Board Crestview, FL $7,849.50	Consultant N/A
Columbia County School Board Lake City, FL $3,360.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-906-9377

1997 ASBESTOS ABATEMENT PROJECTS

JOB:	CONSULTANT:
Whiting Field Milton, Florida $9,500.00	N/A
Hurlburt Field Hurlburt Field, Florida $50,557.86	Law Engineering, Inc. Pensacola, Florida 1-850-857-0606
Vanguard Bank Valparaiso, Florida $89,647.00	2 WR/Architects, Inc. Montgomery, Alabama
Bay County School Board Millville Elementary School Panama City, Florida $7,550.00	Southern Earth Sciences Panama City, Florida Mike Varner 1-850-769-4773
Escambia County School Board Ransom Middle School Pensacola, Florida $59,500.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Florida Mining Company Panama City, Florida $8,280.00	N/A
Hiland Park Baptist Church Panama City, Florida $8,332.50	N/A
Bay County School Board Waller Elementary School Youngstown, Florida $13,700.00	Southern Earth Sciences Panama City, Florida Mike Varner 1-850-769-4773
Westminister Apartments Atlanta, Georgia $19,200.00	Emerald Environmental Marietta, Georgia Robert Heavey 1-770-971-2618
Americus Housing Authority Americus, Georgia $22,500.00	GSC Environmental Augusta, Georgia N/A 1-706-737-0185

1997 Continued

Armstrong Cork company Pensacola, Florida $52,000.00	N/A
Florida State Hospital Chattahoochee, Florida $18,000.00	North Florida Environmental Tallahassee, Florida Scott Megary 1-850-906-9377
Eglin Air Force Base Eglin AFB, Florida $36,595.67	N/A
Escambia County School Board Oakcrest Elementary School Escambia County High School Pensacola, Florida $19,799.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Wyndham Garden Hotel Atlanta, Georgia $171,002.00	SafeTech Consulting Atlanta, Georgia N/A 1-770-804-9055
Beall's Store Clearwater, Florida $4,743.00	N/A
Bishop Animal Hospital Bradenton, Florida $12,134.00	N/A
Escambia County School Board Tate High School Pensacola, Florida $6,000.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Bardmoor Country Club Bradenton, Florida $13,150.00	N/A
Sherman Arcade Building Panama City, Florida $9,750.00	Southern Earth Sciences Panama City, Florida Dan Callahan 1-850-769-4773
Barnesville Housing Authority Barnesville, Georgia $31,500.00	GSC Environmental Laboratories, Inc. Augusta, Georgia John Forrester 1-706-737-0185

1997 CONTINUED

Jesup Housing Authority Jesup, Georgia $29,500.00	GSC Environmental Laboratories, Inc. Augusta, Georgia 1-706-737-0185
Hurlburt Field Hurlburt Field, Florida $1,550.00	North Florida Environmental, Inc. Tallahassee, Florida Scott Megary 1-850-906-9377
Escambia County School Board Dixon Elementary School Pensacola, Florida $6,300.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Escambia County School Board Molina Elementary School Pensacola, Florida $2,500.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Tyndall Air Force Base Base Supply Warehouse Tyndall Air Force Base, FL $20,800.00	N/A
Okaloosa School Board Crestview, Florida $57,273.00	Sverdrup Environmental, Inc. Maryland Heights, MO Skip Mann 1-314-770-4270
U.S. Justice Building Miami, Florida $66,000.00	Atec. Associates Miami, Florida 1-305-882-8200
Bay County School Board Lucille Moore Elementary School Panama City, Florida $51,500.00	Southern Earth Sciences Panama City, Florida Dan Callahan 1-850-76977
First Baptist Church of Pensacola Pensacola, Florida $15,750.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Gulf Coast Community College Panama City, Florida $4,500.00	Southern Earth Sciences Panama City, Florida Dan Callahan 1-850-769-4773

1997 CONTINUED

Okaloosa School Board Southside Elementary School Crestview, Florida $7,150.00	Sverdrup Environmental, Inc. Maryland Heights, MO Skip Mann 1-314-770-4270
Okaloosa School Board Administration Building Crestview, Florida $30,000.00	DAG Architects Destin, Florida 1-850-837-8152
Escambia County School Board Pensacola High School Pensacola, Florida $22,125.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Escambia County School Board Brentwood Middle School Pensacola, Florida $3,712.00	Law Engineering, Inc. Pensacola, Florida Greg Henley 1-850-857-0606
Armstrong Cork Company Pensacola, Florida $15,360.0	N/A
Florida State Hospital Chattahoochee, Florida $18,000.00	North Florida Environmental, Inc. Tallahassee, Florida Scott Megary 1-850-906-9377
Bay County School Board Shaw Adult Center Panama City, Florida $9,350.00	Southern Earth Sciences Panama City, Florida Dan Callahan 1-850-769-4773
Bradenton Housing Authority Bradenton, Florida $5,100.00	N/A
Santa Rosa Medical Center Milton, Florida $4,873.00	N/A
Former 1st Federal Bank Largo, Florida $5,840.00	N/A
St. Anthony's Hospital St. Perersburg, Florida $3,040.00	N/A

1996 ASBESTOS ABATEMENT PROJECTS

Vista Host, Inc. Holiday Inn/Gulf Breeze, FL Houston, Texas $25,049.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Natonal Roofing Tyndall AFB, FL Melbourne, FL $10,846.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-857-0606
Escambia County School Board Pickens Textbook School Pensacola, FL $8,820.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Best Way Construction Eglin AFB, FL Panama City, FL	N/A
Escambia County School Board Pensacola, FL $18,330.00	Law Engineering, Inc Pensacola, FL Greg Henley 1-850-857-0606
Columbia County School Board Lake City, FL $6,387.50	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Parker Shopping Center Panama City, FL $17,230.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Florida State Hospital Chattahoochee, FL $7,050.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Apalachicola Net Factory Apalachicola, FL $3,000.00	Entek West Palm Beach, FL N/A
Pensacola Junior College Pensacola, FL $20,436.00	PSI Pensacola, FL 1-850-941-0743

1996 CONTINUED

V.A. Hospital Lake City, FL $25,000.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Athena I & II Naval Coastal System Panama City, FL $2,415.00	North Florida Environmental Ft. Lauderdale, FL
Dunedin High School Dunedin, FL $91,800.00	Apollo Environmental Gibsonton, FL 1-813-671-3999
Bonded: Republic Western Insurance Phoenix, Arizona	
Hurlburt Field Hurlburt Field, FL $15,604.80	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Santa Rosa Mall Santa Rosa, FL $6,016.0	N/A
Wakulla High School Wakulla, FL $28,000.00	Atec, Associates Jacksonville, FL 1-850-771-3055
Pensacola High School Pensacola, FL $5,265.00	Law Engineering, Inc Pensacola, FL Greg Henley 1-850-857-0606
Hurlburt Field Hurlburt Field, FL $15,216.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Gulf Breeze School Gulf Breeze, FL $12,930.00	N/A
Callaway Pipeline Panama City, FL $30,632.93	Florida D.O.T. Chipley, FL 1-850-638-0250/ext.511

1996 CONTINUED

K-Mart Jacksonville, FL $9,500.00	N/A
Aero Corp. Lake City, FL $4,500.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
1st Presbyterian Church DeFuniak Springs, FL $13,295.00	N/A
Wedgewood Middle School Pensacola, FL $4,875.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Hurlburt Field Hurlburt Field, FL $6,723.20	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Ft. White High School Lake City, FL $7,900.00	North Florida Environmenta Tallahassee, FL Scott Megary 1-850-386-5309
Florida State Hospital Chattahoochee, FL $5,500.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Florida State Hospital Chattahoochee, FL $4,500.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Spencer Bibb Elementary Brown Barge Middle School Pensacola, FL $46,379.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Anthony Homes Housing Authority Macon, Georgia $222,300.00	Atec, Associates Marietta, Georgia Michael Verdon 1-770-427-9456

1996 CONTINUED

Panama City Jailhouse Panama City, FL $4,000.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Milton High School Milton, FL $4,500.00	N/A
Niceville, High School Niceville, FL $5,940.00	N/A
Haney Vocational Panama City, FL $4,500.00	N/A
Murphree Bridge Tallahassee, FL $4,825.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Shaw Adult Center Panama City, FL $5,423.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Tate High School Pensacola, FL $47,500.00 BONDED: Continental Heritage Ins. Valleyview, Ohio	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Eglin AFB(Site A-3) Eglin AFB, FL $9,987.00	N/A
Pickens Textbook School Pensacola, FL $8,820.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606

1995 ASBESTOS ABATEMENT PROJECTS

Northeast Florida Hospital McClenney, FL $43,900.00	EE & G, Inc. Jacksonville, FL Mike Babair 1-904-727-3504
Econo Lodge Lake City, FL $35,489.75	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Purdom Plant St. Marks, FL $144,300.00	Southern Earth Sciences Tallahassee, FL Mike Simpson 1-850-562-6340
Old Georgia Federal Bank Savannah, GA $14,700.00	Law Engineering, Inc. Savannah, GA David Eggleston 1-912-238-3888
Oakcrest Elementary School Warrington Elementary School Brownsville Elementary School Pensacola, FL $55,300.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Naples High School Naples, FL $50,800.00	Apollo Environmental, Inc. Gibsonton, FL 1-800-348-3181
Florida State University Reynolds Hall Tallahassee, FL $162,500.00	Southern Earth Sciences Tallahassee, FL 1-850-52-6340
Gulf Coast Community College Panama City, FL $21,000.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Tate High School Brown Barge Middle School Sherwood Elementary School Pensacola, FL $44,450.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Venice Hospital Venice, FL $26,640.00	N/A

1995 CONTINUED

Barnett Bank Jesup, GA $2,000.00	Law Engineering, Inc. Jacksonville, FL Jim Blythe 1-904-396-5173
Arizona Chemical Panama City, FL $45,500.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Mosley High School Panama City, FL $5,700.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Raintree Apartments Pensacola, FL $6,350.00	N/A
NAS Whiting Field Milton, FL $10,800.00	N/A
Florida State Hospital Chattahoochee, FL $2,700.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Bainbridge Housing Authority Bainbridge, GA $51,470.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Workman Middle School Pensacola, FL $307,500.00	Law Engineering, Inc. Pensacola, FL Greg Henley 1-850-857-0606
Havana Housing Authority Havana, FL $32,800.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Tyndall Air Force Base Tyndall AFB, FL $4,500.00	N/A
Delchamps Pensacola, FL $3,884.00	N/A

1995 CONTINUED

Municipal Auditorium Ft. Walton Bch, FL $1,544.80	N/A
Hurlburt Field Hurlburt Field, FL $35,142.40	N/A

1994 ASBESTOS ABATEMENT PROJECTS

Raintree Apartments Pensacola, FL $30,000.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Columbia County Schools Lake City, FL $200,000.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Georgia Pacific Corp. Cross City, FL $39,500.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Marina Civic Center Panama City, FL $57,550.00	Southern Earth Sciences Panama City, FL Mike Simpson 1-850-769-4773
Okaloosa County Schools Crestview, FL $110,000.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309
Panama City Port Authority Panama City, FL $167,000.00	BCM Panama City, FL Lester Maples 1-850-769-0292
Panama City Housing Authority Panama City, FL $6,500.00	Southern Earth Sciences Panama City, FL Mike Simpson 1-850-769-4773
San Antonio Drug Building San Antonio, Texas $87,078.00	Raba-Kistner San Antonio, TX 1-210-699-9090

1994 CONTINUED

University of West Florida
Pensacola, FL
$27,500.00

School Board of Madison
Madison, FL
$9,100.00

Saufley Fields/NAS Townhouses
Pensacola, FL
$5,197.53

School Board of Broward County
Ft. Lauderdale, FL
$23,500.00

Florida Atlantic University
Boca Raton, FL
$337,240.00

University of Central Florida
Orlando, FL
$67,400.00

HUD of Plant City
Plant City, FL
$97,500.00

Bay County School Board
Panama City, FL
$17,750.00

Garden Bay Apartments
Panama City, FL
$6,000.00

Tallahassee Motor Lodge
Tallahassee, FL
$69,000.00

Days Inn
Lake City, FL
$4,200.00

Environmental Protections System
Pensacola, FL
Don Jimmerson
1-850-478-5717

Atec Associates
Tampa, FL
Susan Wise
1-813-886-0907

Environmental Protections Systems
Pensacola, FL
Don Jimmerson
1-850-478-5717

Law Engineering, Inc.
Miami, FL
1-305-634-3123

PSI
Miami, FL
Bill Stivers
1-305-634-3123

Briggs Associates
Altamonte Springs, FL
1-407-862-1155

Gaudet Associates, Inc.
West Palm Bch, FL
1-407-659-5604

Southern Earth Sciences
Panama City, FL
Mike Simpson
1-850-769-4773

Southern Earth Sciences
Panama City, FL
Mike Simpson
1-850-769-4773

North Florida Environmental
Tallahassee, FL
Scott Megary
1-850-386-5309

Law Engineering, Inc.
Jacksonville, FL
1-904-396-5173

1994 CONTINUED

Florida State Hospital
Chattahoochee, FL
$11,500.00

North Florida Environmental
Tallahassee, FL
Scott Megary
1-850-386-5309

1993 ASBESTOS ABATEMENT PROJECTS

Chipola Junior College
Marianna, FL
$20,000.00

BCM
Panama City, FL
Lester Maples
1-850-769-0292

City of Gainesville
Gainsville, FL
$27,500.00

J.J. Sosa & Associates
Tampa, FL
Jose J. Sosa
1-813-854-3120

Escambia County Schools
Pensacola, FL
$7,550.00

Law Engineering, Inc.
Pensacola, FL
Birmingham, AL
1-205-733-7600

Gulf Coast Hospital
Panama City, FL
$37,000.00

Southern Earth Sciences
Panama City, FL
Mike Simpson
1-850-769-4773

Okaloosa county School Board
Crestview, FL
$12,450.00

North Florida Environmental
Tallahassee, FL
Scott Megary
1-850-386-5309

Sherwin-Williams
Tallahassee, FL
$27,000.00

N/A

Walton County School Board
Defuniak Springs, FL
$186.336.50

Atec, Associates
Tampa, FL
Susan Wise
1-813-886-0907

Washington County School Board
Chipley, FL
$46,395.00

Atec, Associates
Tampa, FL
Susan Wise
1-813-886-0907

1998 LEAD ABATEMENT PROJECTS

Governors Mansion Baton Rouge, LA $120,000.0	N/A
Seminole County Housing Authority Ovieda, FL $21,000.00	QST 6200 Hazeltine National Dr. Orlando, FL 1-407-240-1288

1997 LEAD ABATEMENT PROJECTS

Chipley Housing Authority Chipley, Florida $144,000.00	GLE Associates Decatur, GA Tom Alyson 1-404-373-3844
Defuniak Springs Housing Authority Defuniak Springs, Florida $30,000.00	PSI Pensacola, FL N/A 1-850-941-0743
Live Oak Housing Authority Live Oak, Florida	Tomberlin Associates Atlanta, GA N/A 1-770-451-7531
Barnesvile Housing Authority Barnesvile, GA $31,500.00	GSC Environmental Laboratories, Inc. Augusta, GA John Forrester 1-706-737-0185
Jesup Housing Authority Jesup , GA $29,500.00	GSC Environmental Laboratories, Inc. Augusta, GA 1-706-737-0185
Union County Housing Lake Butler, FL $40,000.00	PSI Jacksonville, FL Paul Fitch 1-904-737-6611

1996 LEAD ABATEMENT PROJECTS

Lake County Courthouse Tavares, FL $166,555.10	Atec Associates Tampa, FL Steve Lipson 1-813-221-8717

1996 LEAD CONTINUED

Eglin Air Force Base Eglin AFB, FL $5,108.0	N/A
Lakeland Housing Authority Lakeland , FL $40,000.00	PSI Clearwater, FL 1-813-538-2244
Anthony Homes Housing Authority Macon, GA $222,300.00	Atec, Associates Marietta, GA 1-770-427-9456
Union County Housing Authority Lake Butler, FL $40,000.00	PSI Jacksonville, FL Paul Fitch 1-904-737-6611

1995 LEAD ABATEMENT PROJECTS

Coastal Systems Panama City, FL $29,500.00	Southern Earth Sciences Panama City, FL Dan Callahan 1-850-769-4773
Housing Authority of Springfield Panama City, FL $60,000.00	PSI Jacksonville, FL Paul Finch 1-407-678-0340
Bainbridge Housing Authority Bainbridge, GA $51,470.00	North Florida Environmental Tallahassee, FL Scot Megary 1-850-386-5309
Panama City Garden Apt. Panama City, FL $36,500.00	N/A
Havana Housing Authority Havana, FL $32,800.00	North Florida Environmental Tallahassee, FL Scott Megary 1-850-386-5309

1994 LEAD ABATEMENT PROJECTS

University of Central Florida Orlando, FL $29,700.00	Briggs Associates Bishop Leatherberry 1-407-862-1155

1994 LEAD CONTINUED

McArthur High School
Hollywood, FL
$57,500.00 (Bonded)

Enhealth Engineers
Jim Litrides
1-305-564-3118

San Antonio Drug Building
San Antonio, TX
$87,078.00

Raba Kistner
Al Raymond
1-210-699-9090

Plant City Housing Authority
Plant City, FL
$120,000.00

Gaudet Associates
Steve Crotty
1-305-261-4003

1993 LEAD ABATEMENT PROJECTS

Pleasant Grove Elementary School
Pensacola, FL
$11,000.00

Law Engineers
Pensacola, FL
Greg Henley
1-850-857-0606

Grant & Pine Ridge
West Point, GA
$296,130.00

BCM Engineers
Mr. Cheatham
1-404-874-9183

1986 LEAD ABATEMENT PROJECTS

Fairburn Housing Authority
Fairburn, GA
$36,000.00

Survey Group
Nick Corish
1-404-984-1578

Valdosta Housing Authority
Hudson Dockett Homes
Valdosta, GA

Survey Group
Nick Corish
1-404-984-1578

LOCKOUT/TAGOUT PROGRAM

I. INTRODUCTION

The U.S. Bureau of Labor Statistics states that electrocution accounts for more than half of all fatalities in the construction and service industries. The major cause of these fatalities are workers who fail to lockout/tagout energy sources on the equipment they are servicing. Employees service equipment on a day-to-day basis that requires them to lockout/tagout energy sources. The following Lockout/Tagout Program outlines the proper steps employees take to lockout/tagout their equipment.

II. PURPOSE

To establish the steps employees take to properly lockout/tagout energy sources on equipment they are servicing.

III. RESPONSIBILITIES

All employees in the field actively participate in the Lockout/Tagout Program.

Employees are the key to having an effective Lockout/Tagout Program. All employees perform the following:

A. Properly lock out all energy sources to equipment prior to servicing the equipment.

B. Work with the customer representative and supervisor when questioning how to lock out a piece of equipment.

C. Maintain all lockout/tagout equipment at the jobsite.

D. Participate in all lock out training.

IV. REQUIRED EQUIPMENT

The following equipment is supplied to employees by the Lockout/Tagout Coordinator when needed:

A. Ball valve lock outs.

B. Block out breakers.

C. Plug locks.

D. Valve covers.

E. Wall switch lock outs.

F. Any other equipment that is required to lockout/tagout an energy source.

V. STEPS TO LOCK OUT EQUIPMENT

When employees are not familiar with how to lock out a piece of equipment or have questions regarding the identification and lock out of a power source, they contact the customer representative for assistance or call their immediate supervisor. To lock out equipment, employees do the following:

A. The specific piece of equipment that is going to be serviced is identified.

B. The power sources that energize the equipment are identified. For example, when working on a chiller control panel, the electrical system is deenergized. If working on a steam valve, the valve that controls the steam to the valve being serviced is locked out.

The equipment's schematic line diagram is used to help identify the power sources for the particular piece of equipment.

C. The equipment necessary to lock out the piece of equipment is identified and obtained. For example, when servicing a chiller control panel, a lock, hasp, and identification tag are used to lock out the chiller's main power source.

D. All employees that are affected by the piece of equipment being locked out are notified.

E. If the equipment is running, the established procedure to shut the equipment down is followed. For example, when shutting down a chiller, the specific procedure established for that chiller is followed. Employees contact their supervisor or customer representative to determine the proper shut-down procedure.

F. The equipment is rested to ground "ZERO," dissipating stored energy. For example, locking out the air to a hydraulic lift that is still suspended would cause the lift to come down, possibly injuring an employee working below the lift.

G. All energy sources that energize the equipment are locked out and an identification tag is placed on the lock. This includes energy sources such as electrical, steam, air, etc.

H. When locking out electrical equipment, the disconnect is tested using a voltmeter. Testing across a fuse is never performed when testing for voltage because if the fuse is bad it gives a false reading. The switch contacts are always used when measuring for voltage.

I. The equipment is examined and all incoming power sources to the equipment are identified. For example, if the main power source for a multizone air handler is locked out, a relay from a control panel could still be sending line voltage back to the airhandler.

The line diagram for both the equipment and control/power panel is used to help identify incoming power sources.

J. After verifying that no one is endangered by the start up of the equipment, the operation of the system is tested by trying to turn on the piece of equipment. For example, after locking out a cooling tower fan, the fan is switched to the manual ON position.

K. After trying to start the equipment, all valves, levers, and push buttons are returned to the OFF/neutral position.

L. The equipment is now locked out and ready to be serviced.

VI. LOCKING OUT EQUIPMENT WITH MORE THAN ONE PERSON

There are times when two or more employees lockout/tagout the same piece of equipment, or an employee is working on the same piece of equipment with another contractor or customer representative. When this occurs, the following steps are followed:

A. When employees are going to initially lockout/tagout a piece of equipment, they follow the steps listed in Section **V. STEPS TO LOCK OUT EQUIPMENT.**

B. All employees who are going to work on the locked out piece of equipment notify the individual(s) who have their lock placed on the hasp before they place their lock and identification tag on the hasp.

Note: Employees who are going to work on equipment that has initially been locked out by another contractor go through the steps listed in Section **V. STEPS TO LOCK OUT EQUIPMENT** before placing their lock on the hasp. This is done to verify that all energy sources have been identified and locked out.

C. When employees are finished with their work on a piece of equipment, they notify all individuals with their lock on the hasp that they have finished and that their lock is being removed from the hasp.

D. The last employee to remove his or her lock from the hasp follows Section **X. STEPS TO REENERGIZE LOCKED OUT EQUIPMENT.**

VII. SHIFT CHANGES/LEAVING THE EQUIPMENT LOCKED OUT OVERNIGHT

The nature of our work requires employees to leave a piece of equipment locked out overnight, which could affect other employees or contractors.

All employees have an identification tag attached to their lock out equipment. The identification tag gives other employees and contractors the necessary information to contact the individual responsible for the locked out piece of equipment. The identification tag provides the following information:

A. The name of the employee who locked out the equipment.

B. The telephone number where the employee can be reached before, during, and after working hours.

VIII. TAGOUT

Tagging out equipment is done by placing a tag on the equipment, warning other individuals that it is being serviced and should not be reenergized. Tagging by itself is not a recommended procedure because it provides a warning only and is not physically locking out the equipment's energy source. However, some equipment or situations require employees to tag out an energy source.

Note: When tagging out a piece of equipment, employees take all precautions possible to avoid accidental start up, such as the removal of a fuse.

A. Employees place a tag on the equipment's disconnect when the equipment is either:

1. Incapable of being physically locked out by a padlock and hasp.

2. It is impractical to lock it out because the system's shut down could pose potential harm to other individuals.

B. Tagout devices are constructed so that they are able to withstand the environment they are used in. For example, when tagging equipment outdoors, the tagout device withstands rain, snow, sun, etc. and is still legible. The following information is on the tagout device:

1. DANGER DO NOT OPERATE.

2. The name of the employee who tagged out the equipment.

3. The telephone number where the employee can be reached before, during, and after working hours.

IX. SUBCONTRACTING

When electrical work is subcontracted, the subcontractor verifies that they are using a Lockout/Tagout Program by submitting their program prior to starting the job.

X. STEPS TO REENERGIZE LOCKED OUT EQUIPMENT

The steps below are followed by employees when reenergizing locked out equipment. When employees are not familiar with how to start up a piece of equipment, they contact either the customer representative or their supervisor.

A. All safeguards are placed back on the equipment.

B. All tools, parts, etc. are removed from around the area that could cause a potential hazard when the equipment is started.

C. The equipment and area are checked to identify anyone who may be affected by the start up. For example, when starting up an airhandler fan, the area is checked and any other individuals who are working in the immediate area are notified that the fan is going to be started.

D. Lockout/tagout equipment is removed and the equipment is started according to the start-up procedure. Employees contact their supervisor or customer representative when questioning the proper start-up procedure.

XI. ENERGY CONTROL PROCEDURES

A piece of equipment with two or more power sources has a specific energy control procedure. This procedure identifies the energy sources and the proper steps to use to lock out the equipment.

XII. TRAINING

A. Employees are provided training to ensure that the purpose and function of the energy control program are understood, and that the knowledge and skills required for the safe application, usage, and removal of energy controls are acquired by employees. Training includes the following:

1. Each authorized employee receives training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and methods and means necessary for energy isolation and control.

2. Each affected employee is instructed on the purpose and use of the energy control procedure.

3. All employees whose work operations are or may be in an area where energy control procedures may be utilized, are instructed on the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

B. When tagout systems are used, employees are trained in the following limitations of tags:

1. Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

2. When a tag is attached to an energy isolating means, it is not removed without authorization of the person responsible for it, and it is never by-passed, ignored or otherwise defeated.

3. Tags are legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.

4. Tags and their means of attachment are made of materials which withstand environmental conditions encountered in the workplace.

5. Tags may evoke a false sense of security, so their meaning is understood as part of the overall energy control program.

6. Tags are securely attached to energy isolating devices so they are not inadvertently or accidentally detached during use.

C. Retraining

Retraining is provided for all authorized and affected employees whenever there is a change in job assignment, machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

D. All training is documented and kept on file.

MEDICAL SURVEILLANCE PROGRAM

I. INTRODUCTION:

The purpose of this program is to address two areas of major concern - the safety and health of all employees and compliance with regulatory requirements. This program is applicable to all past, present, and future employees of The Company.

OSHA Asbestos standard 29 CFR 1910.1001, 29 CFR 1910. 134, & 29 CFR 1926.58, Respiratory Protection, have been used as the guide for writing this program.

II. MANAGEMENT RESPONSIBILITIES

A. Maintaining a detailed knowledge of this program and complying with its provisions at all times.

B. Co-ordinating and scheduling all medical and associated examination/tests required of all employees necessary to be in constant compliance with this program.

C. Maintaining complete and accurate records of all medical examinations of all employees involved in asbestos-lead-related work.

D. Submitting these records and any additional requirements for a particular area to Corporate Center where they will be maintained for 30 years minimum.

E. Constantly observing employees under their supervision for any change in health or other change that indicates an employee's health status may have changed sufficiently to warrant either a temporary or permanent change of duty and work environment for reason of good health practices.

F. Maintaining a sound medical status through the use of good, day to day, personal health practices. Specifically, do not consume excessive alcoholic beverages or tobacco products, do not use drugs other than those prescribed by a licensed medical doctor, and get the proper amount of rest each day. During hot weather, maintain a good level of fluids to prevent heat problems.

G. Providing a safe work environment for all projects under their supervision.

H. Complying with the access provision of OSHA Asbestos Regulation 29 CFR 1910.1001, 29 CFR 1910.134, & 29 CFR 1926.58.

III. EMPLOYEE SELECTION

Due to the nature of asbestos occupation, potential employees must be carefully screened. Since recognized studies indicate that smoking in conjunction with inhalation of asbestos fibers may increase the risk of health damage, it is preferable to employ non-smokers in positions which exhibit the greatest potential for exposure to airborne asbestos fibers. Good judgment should be exercised regarding this; but "chain" smokers should be screened out of asbestos worker position.

A. Applicant must fill out the employment application leaving no blank spaces. Applicant's physician should be listed. Employee's work history should be verified if possible.

B. Because of future medical implications, applicants must understand that facial hair or abnormalities that would render a respirator-to-face seal ineffective will disqualify applicant for position.

C. Applicant must understand that inherent in the position are tasks such as lifting, crawling, stretching, overhead work and other conditions which result in physical exertion.

D. Applicant must understand that the position requires occasional work at elevated heights.

E. *If the candidate appears to satisfactorily fulfill the requirements of the position* applied for, the project management personnel must provide or make available a company paid physical examination prior to use of respiratory equipment.

IV. MEDICAL EXAMINATIONS

The Company shall provide to each employee, at its expense, medical examinations relative to exposure of asbestos as outlined in this paragraph.

A. Pre-Placement Examinations. The Company shall provide to each of its employees, before wearing respiratory protection equipment and being exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination which shall include, (as a minimum): A chest roentgenogram (posterior-anterior 14 x 17 inches), a history of elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV 1.0). The examining physician shall complete The Companies Physician's Statement (attached) or comparable paperwork indicating whether or not the employee is capable of wearing a respirator and also outlines any limitations associated with respirator use. (Any other limiting factors for respirator use should be noted.)

B. Annual Examination. Each employee will be provided a comprehensive medical examination annually. Such annual examination shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history of elicit symptomatology of respiratory disease, and pulmonary function tests to

include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV 1.0). The examining physician shall complete the Companies Physician's statement, or comparable paperwork, indicating whether or not the employee is capable of wearing a respirator and also outlining any limitations associated with respirator use. Any other limiting factors for respirator use should be noted.

C. Termination of Employment Examinations. The Company shall provide or make available within 30 Calendar days of employment or after termination of employment of any employee engaged in an occupation exposed to airborne concentrations of asbestos fibers a comprehensive medical examination which shall include, as a minimum, a chest roentgenogram (Posterior-Anterior 14 x 17 inches), a history of elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV 1.0).

D. Unscheduled Medical Examinations. Each employee will be required to take unscheduled medical examinations if so directed by The Company management personnel. These examinations will be required if there is reason to believe a change in an employee's medical condition has occurred which would increase the employee's health risk should he continue to perform his assigned duties during abatement operations.

E. Reasons for Specific Tests. All of the tests that are required to be performed during pre-placement, annual, termination, and unscheduled medical examinations are required to properly evaluate the human body systems that are most likely to be affected by exposure to elevated levels of airborne asbestos fibers. Some of the specific reasons for each test are discussed as follows:

1. Chest X-Ray (Posterior-Anterior 14 x 17 inches). These are performed primarily to detect irregularities in the lungs or the heart, including any fibrosis of pleural plaques induced by exposure to asbestos. Chest x-rays may also be used as a baseline to comparing future x-rays.

2. Pulmonary Function. These tests are conducted to determine if a person's lungs are expanding normally, and if there is adequate air movement in and out of the lungs. The FVC and FEV 1.0 are conducted through the use of spirometer. If the FEV 1.0 is reduced, this may signify a possible obstruction or problem in an employee's lungs. If the FVC or the ratio of FEV 1.0 to FVC is reduced, this may signify restrictive changes in the employee's lungs.

3. Pulmonary History. This part of the examination is simply a questionnaire that is completed by the employee. It is used to identify the potential for respiratory diseases. Several questions relate to chronic lung diseases, while others address the employee's personal habits such as smoking.

There is often particular concern for the health of a person who smokes and is also exposed to asbestos. Smoking is known to have a synergistic effect relating to asbestos exposure; that is, it compounds or intensifies the effects. Recent studies indicate that an employee (asbestos worker) who smokes is more likely to develop lung cancer than non-smokers who work with asbestos.

F. The Company requires in addition to the OSHA Standards 1910.1001 and 1910.134 the following:

1. Ear examination to determine the existence of punctured or perforated ear drum(s).

2. General physical condition including height-to-weight ratios to determine suitability to perform strenuous manual labor in high temperature/high humidity environments while wearing respirator/protective equipment. The worker's activities include bending, reaching, stooping, twisting, crawling, standing, climbing, and lifting up to 75 pounds. The worker may also be required to work at heights up to four/five stories.

3. Eyesight and peripheral vision testing; also, determine if applicant/employee wears glassed and or contact lenses.

4. List of current medications or medical treatments applicant/employee is now taking or may need to take during the period of expected employment. Pay special attention to loss of co-ordination.

5. History of back injury or existing back condition that may be aggravated by the physical demands of the positions. Determine the history of serious injury or existing condition of arms and legs, all joints, that could be aggravated by the physical demands of the position.

6. History of existence of emphysema, chronic pulmonary obstructive restrictive disease, bronchial asthma, coronary artery disease, severe or progressive hypertension, epilepsy (Grand or Petit Mal), anemia (perncious), diabetes (insipidus or Melli'tus).

7. History of hernia that may be aggravated by the physical demands of this position.

8. Visual examination of interior of mouth, teeth (missing teeth), and gums that might cause leakage around the face piece.

G. Summary. Information contained in this section is important in developing and understanding of why a good Medical Surveillance Program is essential to ensure the safety and health of The Companies employees. It is important to have a clear understanding of the OSHA requirements regarding Medical Surveillance Programs for employees who are exposed to more than 0.1 f/cc of airborne asbestos determined by an 8 hour time weighted average (TWA) sample. Additionally, it is important to understand the reasons associated with each of the specific tests that comprise an acceptable Medical Evaluation Program.

H. Changes. Changes will be made to this program as laws and regulations dictate and when The Company considers a change to be in the best interest of the health and safety of its employees.

Amendments 12/29/87

1. At minimum, supervisors will hold a current Red Cross Training Certificate.
2. Employee to receive a copy of Physicians Written Opinion within 30 days.
3. Employee will receive pre-employment x-ray as required, then at his/her discretion an annual update. The Company reserves the right to yearly x-ray if the health of an employee is in question.

Access:

The contents of the records of the medical examinations required shall be made available, for inspection and copying, to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physicians and medical consultants of either of them, and, upon the request of an employee, to his physician.

Medical Facilities Utilized:

BAY WALK-IN CLINIC
2306 Highway 77
Panama City, Florida 32405
1-850-763-9744

NORTH DAVIS FAMILY MEDICINE CENTER
6330 North Davis Highway
Pensacola, Florida 32504
1-850-478-3336

STANDARDS OF ADMINISTRATION AND INTERPRETATION OF PULMONARY FUNCTION TESTS

These standards are for the guidance of physicians and medical technicians to ensure that uniform procedures are used in administering and interpreting pulmonary function tests, so that the best available medical information will be obtained.

1. Instruments to be used for the administration of pulmonary function tests shall conform to the following criteria:
   a) The instrument shall have a minimum accuracy to within ± 50 mil. or within ± 3 percent of reading, whichever is greater.
   b) The instrument shall be capable of measuring forced vital capacity (FVC) from at least 0 to 7 liters (BPTS).
   c) The instrument shall have a low inertia and offer low resistance to airflow such that the resistance to airflow at 12 liters per second must be less than 1.5 cm H_2O/liter/sec.
   d) The zero time point for the purpose of timing the FEV 1.0 shall be determined by extrapolating the steepest portion of the volume-time curve back to the maximal inspiration volume (back extrapolation method) or by an equivalent method.
   e) Instruments incorporating measurements of airflow to determine volume shall conform to the volume accuracy requirements with flow rates from at least 0 to 12 liters per sec.
   f) The instrument or user of the instrument must have a means of correcting volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.
   g) The instrument used shall provide a tracing of either flow versus volume or volume versus time during the entire forced expiration. A tracing is necessary to determine whether the patient has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the volume accuracy requirements. If a paper record is made it must have a paper speed of at least 2 cm/sec. and a volume sensitivity of at least 10.0 mm of chart per liter of volume. The recorder tracing must display the entire FVC maneuver at a constant speed for at least 10 seconds after the onset of exhalation.
   h) The instrument shall be capable of accumulating volume for a minimum of 10 seconds after the onset of exhalation.
   i) The forced expiratory volume in one second (FEV 1.0) measurements shall comply with the accuracy requirements for volume. That is, they must have a minimum accuracy to within ± 50 mil. or within ± 3 percent of reading, whichever is greater.
   j) The instrument must be capable of performing a field calibration.

Bloodborne Pathogens Exposure Control Program

for

AZTEC ENVIRONMENTAL, INC.
(name of business)

2060 North Sherman Avenue
(address)

Panama City	Florida	32405
(city)	(state)	(ZIP code)

Debbie K. Livingston	President	850-747-0078
(print name of preparer)	(title)	(phone number)

Prepared by:
Debbie K. Livingston
(signature)

Date:
7/31/98

The following exposure control plan has been developed in accordance with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030.

Engineering and Work Practice Controls

Everyone in this office will observe "universal precautions." All human blood and certain human bodily fluids will be treated as if they are known to be infectious for HIV, HBV, or other bloodborne pathogens.

The following engineering safeguards and work practices will eliminate or minimize employee exposure to bloodborne pathogens:

1. Hand washing facilities should be readily accessible for each employee. If not available, antiseptic hand cleanser and clean cloth or paper towels will be provided.

2. Employees must wash their hands immediately (or as soon as feasible) after removal of gloves or other personal protective equipment.

3. Employees must wash their hands or other skin with soap and water, or flush mucous membranes with water, as soon as possible following an exposure incident. The location of the eyewash for employee use is in the shower.

4. Contaminated needles or other contaminated sharps will not be bent, recapped, or removed except as noted below:

   a. Needles may be recapped only by using a mechanical device or a one-handed technique.

   b. Needles may be removed using a mechanical device or a tool (for example, forceps).

5. Breaking or shearing contaminated needles is prohibited.

6. Immediately or as soon as possible after use, contaminated reusable sharps will be placed in appropriate containers until properly processed.

7. No eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses is allowed in a work area where there is a reasonable likelihood of occupational exposure.

8. No food or drinks shall be kept in refrigerators, freezers, shelves, or cabinets or on counter tops or bench tops where blood or other potentially infectious materials are present.

9. Employees must perform all procedures involving blood or other potentially infectious materials in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

10. Mouth pipetting or suctioning of blood or other potentially infectious material is prohibited.

11. Specimens of blood or other potentially infectious material will be placed in a container that prevents leakage during:

    a. collection
    b. handling
    c. processing
    d. storage
    e. transporting
    f. shipping

12. Equipment that may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before servicing or shipping.

Supervisor on Site
(name of person)

is responsible for examining and maintaining or replacing the engineering controls on a Monthly basis to ensure
(time period - for example monthly)
their effectiveness.

Housekeeping

The following housekeeping procedures must be followed:

- Clean and disinfect contaminated equipment and work surfaces with A DISINFECTANT after each patient.
- Clean and disinfect contaminated instruments and reusable sharps with A DISINFECTANT.
- Clean and inspect bins, pails, cans, and similar receptacles daily.
- Clean bins, pails, cans, and similar receptacles immediately if visibly contaminated.
- Do not pick up broken glass directly with the hands. Use mechanical means such as a broom and dust pan, tongs, or forceps.
- Do not store contaminated reusable sharps in a manner that requires reaching into the storage containers by hand.
- Discard contaminated disposable sharps in appropriate containers immediately or as soon as feasible.
- Handle contaminated laundry as little as possible and with a minimum of agitation.
- Place contaminated laundry that is ready for pick-up in an appropriate container.

Personal Protective Equipment

AZTEC ENVIRONMENTAL, INC.
(name of business)

will provide gloves, masks, eye protection, and gowns at no cost to employees.

AZTEC ENVIRONMENTAL, INC.
(name of business)

will replace, repair, or clean personal protective equipment as necessary and at no cost to employees.

Employees must:

- utilize protective equipment in occupational exposure situations
- remove garments that become penetrated by blood or other potentially infectious material immediately or as soon as feasible
- replace all garments that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens
- remove all personal protective equipment before leaving the work area
- place all garments in the appropriate designated area or container for storage, cleaning, decontamination, or disposal

Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-Up

The hepatitis B virus (HBV) vaccine and vaccination series is available at no cost to all employees who have occupational exposure. The HBV vaccination is available after an employee has received his or her required training and within 10 working days of his or her initial job assignment, unless:

- the employee has previously received the complete hepatitis B vaccination series
- antibody testing has revealed that the employee is immune
- the vaccine is not advised for medical reasons

An employee who administers first aid as a secondary duty may receive an HBV vaccine within 24 hours after exposure. An employee receiving post-exposure HBV vaccination will be provided with all the post-exposure follow-up procedures listed in this plan.

An employee can initially decline the hepatitis B vaccination. The employee can request the vaccination at a later date at no cost to the employee. Employees who decline the vaccination must sign the statement that follows this section.

If the U.S. Public Health Service recommends routine booster doses of hepatitis B vaccine, the booster will be available at no cost of the employee.

Following a report of an exposure incident, the exposed employee (if consenting) will receive a confidential medical evaluation and follow-up. The **medical evaluation after exposure** and medical follow-up will include at least the following:

1. Documentation of the route(s) of exposure
2. A description of the circumstances under which the exposure occurred

3. The identification and documentation of the source individual (The identification is not required if the employer can establish that identification is impossible or prohibited by state or local law.)

4. The collection and testing of the source individual's blood for HBV and HIV serological status

5. Post-exposure treatment for the employee, when medically indicated in accordance with the U.S. Public Health Service

6. Counseling

7. Evaluation of any reported illness

The **health care professional** evaluating an employee will be provided with the following information:

1. A copy of the OSHA Bloodborne Pathogens regulations (29 CFR 1910.1030)

2. A description of the exposed employee's duties as they relate to the exposure incident

3. Documentation of the routes of exposure

4. A description of the circumstances under which the exposure occurred

5. Results of the source individual's blood testing, if available

6. All medical records applicable to treatment of the employee, including vaccination status (The employer must maintain a record of each covered employee's vaccination status.)

The employee will receive a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.

The health care professional's written opinion for hepatitis B vaccination is limited to the following: (1) whether the employee needs hepatitis B vaccination; and (2) whether the employee has received the vaccination. The **health care professional's written opinion** for post-exposure evaluation and follow-up is limited to the following information:

1. That the employee was informed of the results of the evaluation

2. That the employee was informed about any medical conditions resulting from exposure to blood or other infectious materials that require further evaluation or treatment

All other findings or diagnoses will remain confidential and will not be in a written report.

Medical evaluations and **procedures at no cost to the employee** include the following:

- the hepatitis B vaccine
- the hepatitis B vaccination series
- the post-exposure evaluation and follow-up, including treatment

All medical evaluations are made by or under the supervision of a licensed physician or by or under the supervision of another licensed health care professional. All laboratory tests must be conducted by an accredited laboratory at no cost to the employee. All medical records will be kept in accordance with 29 CFR 1910.20.

Hepatitis B Vaccine Declination

I understand that due to my occupational exposure to blood or other infectious materials that I may be at risk of acquiring hepatitis B virus (HBV) infection. I have the opportunity to receive the hepatitis B vaccine at no charge to myself. However, I decline hepatitis B vaccination now. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want the hepatitis B vaccine, I can receive the vaccine at no charge to me.

_____	_____	_____
(print name)	(title)	(date)

_____
(signature)

Training

All employees with occupational exposure will participate in a training program. The program is available to the employee at the time of the first assignment to a task where occupational exposure may take place. Training will occur at least annually. Additional training will be provided when changes (such as modification of tasks or procedures) affect the employee's occupational exposure.

Any employee who is exposed to infectious materials shall receive training, even if the employee was allowed to receive the HBV vaccine after exposure.

The training program will include at least the following elements:

1. An accessible copy of the regulatory text of 29 CFR 1910.1030 and an explanation of its contents.

2. A general explanation of the epidemiology and symptoms of bloodborne diseases.

3. An explanation of the modes of transmission of bloodborne pathogens.

4. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan.

5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious material.

6. An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment.

7. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.

8. An explanation of the basis for selection of personal protective equipment.

9. Information on the hepatitis B vaccine, including information on its efficacy and safety, the method of administration, the benefits of being vaccinated, and the fact that the vaccine is offered free of charge.

10. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material.

11. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that is available.

12. Information on the post-exposure evaluation and follow-up required for the employee following an exposure incident.

13. An explanation of the signs, labels, and color coding.

14. An opportunity for interactive questions and answers with the person conducting the training.

15. A list of the names of the trainers and their qualifications will be provided. The qualifications of the trainers must meet or exceed OSHA standards.

Recordkeeping

We will establish and maintain an accurate medical record for each employee with occupational exposure as required under 29 CFR 1910.20 and 1910.1030.

We will establish and maintain training records as required under 29 CFR 1910.20 and 29 CFR 1910.1030. All medical and training records are available to the subject employee, to anyone having written consent of the subject employee, to the Director of the NIOSH, and to the Assistant Secretary of Labor for OSHA, as provided by 29 CFR 1910.20 and 1910.1030.

Training records will be maintained for three years from the date of training.

Debbie K. Livingston
(name of person)

will review and update this plan at least annually to reflect new or modified tasks and procedures that affect occupational exposure and employee positions.

A copy of this plan will be kept at 2060 N. Sherman Ave. Panama City, FL (location) for employee use.

AZTEC ENVIRONMENTAL, INC.

WRITTEN HAZARD COMMUNICATION PROGRAM

This Written Hazard Communication Program was prepared for use by Aztec Environmental, Inc. to explain how this organization meets the requirements of the Federal Occupational Safety and Health Administrations hazard communication standard (29 CFR 1910, 1200). It spells out how this company will inventory chemicals in use, obtain and use material safety data sheets, maintain labels on chemical substances, and train employees and contract workers about the hazards of chemicals they are likely to encounter on the job.

Preparation of this program indicates our continuing commitment to safety among our employees is all of our locations, each division and subsidiary is expected to follow this program and maintain its work area in accordance with it. Employees, their designated representatives, and government officials must be provided copies of this program upon request. In addition to the program, other information required as part of our hazard communication efforts is an employee's right. No one will be penalized in any way for asking to review it. Using this information is part of our shared commitment to a safe and healthy work place.

1. GENERAL RESPONSIBILITY

The purpose of this Written Hazard Communication Program is to explain how Aztec Environmental, Inc. meets the requirements of Federal, state and local rules in informing employees about the possible hazards of chemicals in the work place. In this organization, Jimmy Livingston in our Corporate Office in Florida is the overall coordinator for the program and is able to answer questions and provide additional information needed. This person is acting in this position at the request of Aztec Environmental, Inc., who is committed to safety in the work place and is authorizing the information and training program outline below.

In cases of multiple work sites, the person with the overall responsibility for hazard communication compliance may delegate on-site responsibility to a designee. In the case of all out of town branches, the designee shall be the Branch Office Manager.

2. LIST OF HAZARDOUS CHEMICALS

In this organization, Jimmy Livingston maintains a master list of all hazardous chemicals used, called the Master Chemical List. This hazardous chemical list is updated whenever new chemicals are received at any of our facilities. The Master Chemical List is maintained in the Corporate Office in Florida, and is available for inspection upon request. A copy of the Master Chemical List is attached to this Written Hazard Communication Program.

This organization also has prepared Branch Chemical Lists that name the hazardous chemicals used in each location. The original list is kept in the Corporate Office in Florida and a copy kept by the supervisor of each location.

No new hazardous chemical substances may be purchased or brought into a location unless Jimmy Livingston or the Branch Manager is informed in advance.

3. MATERIAL SAFETY DATA SHEETS (MSDS)

As part of this organizations compliance with the hazard communication standard, Jimmy Livingston maintains a library of Material Safety Data Sheets for chemicals used in all locations. The MSDS consists of a fully completed OSHA Form 174 or equivalent.

The supervisor in each area where chemicals are used is responsible for maintaining a copy of the MSDS for each hazardous chemical used in that area. The MSDS are readily available to all employees during all work shifts.

A. PROCEDURES USED FOR MSDS

1. New MSDS: The supervisor must forward each new MSDS that is received to Debbie Livingston. The chemical will be added to the Master Chemical List and the appropriate Branch Chemical List. The original MSDS will be stored for future reference and a copy returned to the location where the chemical is used. There it will be filed with other MSDS's for that location. The new MSDS must be received prior to or at the time of receipt of the first shipment of any potentially hazardous chemical from a supplier. It is the policy of Aztec Environmental, Inc. to stop purchasing hazardous chemical products from any supplier that does not provide an appropriate MSDS in a timely fashion.

2. Acquiring MSDS's: Debbie Livingston is responsible for obtaining MSDS's from suppliers and for maintaining the organization's MSDS Master File. She will also contact suppliers for missing MSDS's, check MSDS files for currency, and maintain the master list of MSDS's. All new chemical purchases must be cleared through Debbie Livingston. The least hazardous substance will be purchased whenever possible.

3. Control of MSDS's: The original version of each new MSDS must be forwarded immediately to Debbie Livingston, a copy will be made and sent to the location where the chemical is used, where it will be filed with other MSDS's for that location.

4. LABELS, LABELING, AND WARNINGS

Debbie Livingston will ensure that all hazardous chemicals used at our facilities are properly labeled. Branch Office Managers are responsible for ensuring that all hazardous chemicals used at their location are properly labeled. These people will also verify that the identifying information is in the MSDS for that hazardous chemical.

Damaged labels or labels lacking needed information should be reported to Debbie Livingston or the branch office manager immediately. This person will also approve all labels prepared for in-house use before they are used and check on a regular basis that all containers are labeled and are up-to-date.

Labels on incoming containers of hazardous chemicals may not be removed or defaced unless a new label or markings with the required warnings is immediately attached to the container. However, containers into which an employee transfers a hazardous chemical for his or her own immediate use do not require labeling.

Labels, tags or markings on containers will list at least:

1. The identity of the hazardous chemical(s) as listed on the MSDS.

2. Appropriate hazard warnings to help employees protect themselves from the hazards of the substance.

3. Labels provided by chemical manufactures, distributors, and importers must also list the name and address of the manufacturer, importer, or other person responsible for the chemical and from where more information about the chemical can be obtained.

5. TRAINING

Every employee who works with or may be exposed to hazardous chemical will be trained on safe use of those substances and about the hazard communication standard. Additional training will be provided whenever a new hazard is introduced in to the work area. Branch supervisors will conduct supplementary training on a daily basis, as a way of reinforcing the importance of handling chemicals properly.

Formal training will be conducted under the direction of Jimmy Livingston. In most cases, the immediate supervisor will take part in the training using materials provided by Debbie Livingston. This person also will monitor and maintain records of employee training and will advise Debbie Livingston of additional training needs.

A. Training Materials

Materials used for training include the following:

1. An employee handout, entitled, " CHEMICALS AND YOUR JOB"

2. A formal training session geared to actual work areas.

3. A copy of the Written Hazard Communication Program.

4. A copy of the Master Chemical List.

B. Training Elements:

Hazard communication training for the employees include:

1. Information about the requirements of the hazard communication standard, the content and location of this written program, and where the hazardous chemicals are located in the work areas.

2. Training on how to detect the presence or release of hazardous chemicals, including appearance, color and use of monitoring devices.

3. Training on the physical and health hazards of chemicals in their work areas.

4. Information on how to protect themselves from chemical hazards, including use of protective equipment, proper work practices, and emergency procedures.

5. An explanation of the operation of the hazard communication program, including the meaning and use of labels and material safety data sheets.

6. Information about their rights under the hazard communication program and on how to obtain and use appropriate and/or additional hazard information.

6. OUTSIDE CONTRACTORS, EMPLOYERS

Jimmy Livingston, the office manager shall be informed by the appropriate supervisor whenever outside contract employees will be in an area where hazardous chemicals are present. The contractor shall then be advised of those hazards and given information so that the contractor may train its employee.

7. NON-ROUTINE TASKS

Supervisors, maintenance personnel, or others planning a non-routine task such as spill clean-up, repairs, or construction must consult Jimmy Livingston or the Branch Office Manager. Those undertaking such activities, along with Jimmy Livingston or the Branch Office Manager, will make sure that employees are informed of chemical hazards associated with the non-routine tasks and told how to protect themselves. To facilitate this, the supervisor, Jimmy Livingston, or the Branch Office Managers, and the involved employees will meet to discuss possible Hazards before non-routine work begins.

8. **ADDITIONAL INFORMATION**

For information on the Hazard Communication Program, Chemical Hazards, or Material Safety Data Sheets contact:

Debbie Livingston
Aztec Environmental, Inc.
2060 N. Sherman Avenue
Panama City, Florida 32405

(850) 747-0078

The person designated as the contact for hazard communication information at each branch is the Branch Office Manager.

AZTEC
RONMENTAL, INC.

2060 N. Sherman Ave.

Panama City, FL 32405

Tel.: 850/747-0078

Fax: 850/784-0430

E-Mail: Aztec@Bellsouth.net

MASTER CHEMICAL LIST

ACC-22P
("Lock Down" &Penetrating Encapsulant)

CHEM-SAFE 100

ADHESIVE
(Non-Chlorinated)

ADHESIVE
(Spray Poly Wall)

EXODOR
(Disodorizer & Odor Neutralizer)

FOSTOR
(40-80 HVAC & Wall Disinfectant)

KIL-ODER
(Fresh Apple)

PINE QUAT
(Cleaner Disinfectant)

SUPER WATER WETTER
(Nonionic Surfactant)

Outside Contractors

It will be the responsibility of:

Supervisor on Site
(name or title)

to provide other personnel or outside contractors with the following information:

1. Hazardous chemicals to which they may be exposed while in the workplace.

2. Measures to lessen the possibility of exposure.

3. Location of MSDSs for all hazardous chemicals.

4. Procedures to follow if they are exposed.

Mell Cason, Operation Manager
(name or title)

will also be responsible for contacting each contractor before work is started and finding out what chemicals the contractor is bringing into the workplace. If employees are to be exposed to these chemicals

Supervisor on Site
(name or title)

will inform those employees who may be affected.

Debbie K. Leingston — President — 3/9/98
(signature of employer) (title) (date)

AMERICAN COATINGS CORPORATION

Serving the Environmental Control Industry Since 1979

2530 N. Powerline Road • #404
Pompano Beach, Florida 33069

(305) 960-0500
(800) 533-0151

ACC-22-P

"Lock Down" & Penetrating Encapsulant

22P is a specialized emulsion which meets all standards for asbestos encapsulants. **22P** is used for "locking down" all surfaces in the work area following asbestos removal and as a penetrating encapsulant for existing insulations.

As a "lock down", **22P**'s one step application seals potentially stagnant fibers while forming a tough, clear film over the substrate. **22P** provides much greater coverage than competitive sealants and is compatible with standard replacement products.

22P encapsulates existing insulations by penetrating deeply into the surface, coating and binding treated fibers in place, and forming a hard, durable matrix. Upon curing, the surface has an elastic-like resilience which is impact resistant.

PRODUCT DATA & TEST RESULTS

Product Classification	Penetrating Encapsulant
Viscosity, cps	40
Percent Solids, by weight	Greater than 18
Percent Solids, by volume	16-24
Penetration, in inches (Friable Matrix)	1.50
Impact Resistance, inch pounds (Friable Matrix)	140
pH	4.0
Specific Gravity	1.08
Weight per Gallon, pounds	9.0
Reactivity Data	Stable
Incompatibility	Strong Oxidizers
Freezing Point	32°F
Storage	40°F-100°F
Odor:	
Wet	Mild latex
Dry	None
Color:	
Wet	Milky White
Dry	Translucent

FLAMMABILITY INFORMATION:

OSHA	IIIB
DOT	Not Regulated
Flash Point (TCC)	212°F
Flame Spread Index (ASTM E84-86)	0
Smoke Developed (ASTM E84-86)	10
Fire Rating (ASTM E84-86)	A
(Application rate for testing 100 ft²/gal)	
Flame Spread Index (ASTM E162)	17
Flame Spread Classification (ASTM E162)	A
(Conducted on a friable matrix @ 20 ft²/gal)	

SMOKE GENERATION DATA:

Opt. Density Flame Mode	3
Maximum Smoke Density:	
Percent, by Flame Mode	21
Percent, by Glow Wire Mode	8
Toxic Gas Release:	
CO, percent by volume	.03
HCl, ppm	Less than 1
HCN, ppm	Less than 2
NO + NO2	Less than 5

EQUIPMENT SPECIFICATIONS:

Airless Spray Pump Equal To	GRACO EH 333; EH 433; Bulldog
Hose Size	¼" to ½" Inner Diameter
Tip Size	.019 to .026
Spray Gun	Standard Paint Gun

Apply at low pressure to avoid unnecessary rebound and overspray.

"LOCK DOWN" PROCEDURE

Approximate Coverage Range: Up to 1500 Ft²/Gallon

Application Suggestions

Product may be used full strength or diluted two parts water. Manufacturer recommends trial application to determine most effective finish for each project. Wear safety non-skid footwear. Avoid hot surfaces.

1. Make sure all visible asbestos materials have been removed per specification requirements.
2. Set airless spray equipment to lowest possible pressure which is still capable of spraying material.
3. Select desired concentration. Use a rapid spray motion applying 22P to all surfaces in the work area, including protective barriers and debris. Avoid hot surfaces.
4. One misting should be sufficient. Allow adequate time for drying prior to installing replacement product.

ENCAPSULATION PROCEDURE

Approximate Coverages*

Thickness	Ft² per Gallon	Thickness	Ft² per Gallon
1/8 Inch	82	3/4 Inch	13
1/4 Inch	41	1 Inch	10
1/2 Inch	20	1.5 Inch	7

* Application figures include two coat coverage. For example to encapsulate 200 square feet of ½" thick material, you would need approximately 10 gallons.

Manufacturer suggests trial application to determine most effective finish for each project.

Application Suggestions

1. Carefully hand pick all loose or hanging insulation from the substrate and properly dispose of same.
2. 22P is sprayed full strength with airless spray pump.
3. Apply 22P to substrate in continuous passes until saturation (slight dripping) occurs. Some substrates may require a light misting of 22P prior to first coat to break surface tension. Avoid hot surfaces.
4. Allow first coat to set a minimum of 4 hours.
5. Apply second coat of 22P in continuous passes until saturation (slight dripping) occurs. Allow to cure. If required, topcoat with latex paints only after drying.

DISTRIBUTED BY

* ENCAPSULANT MATERIALS CLASSIFIED BY UNDERWRITERS LABORATORIES INC ® AS TO FIRE RESISTANCE FOR USE WITH CLASSIFIED FIRE RESISTANCE TYPES RG & RG1 CLASSIFIED FOR ZONOLITE CONSTRUCTION PRODUCTS DIV., W. R. GRACE & CO. AND AT AN APPLICATION RATE OF NOT LESS THAN 1000 SQ. FT./GAL. ON BEAMS, COLUMNS, JOISTS, AND FLUTED STEEL FLOOR AND FORM UNITS. ABILITY OF THIS MATERIAL TO ACT AS A SEALANT HAS NOT BEEN INVESTIGATED. SEE UL FIRE RESISTANCE DIRECTORY.

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS
REPLACES NPCA 1-82

MANUFACTURED FOR

American Coatings Corporation

3037 Northwest 60th Street
Ft. Lauderdale, Florida 33309

EMERGENCY TELEPHONE

(954)970-7820

DATE OF PREPARATION
September 3, 1996

SECTION I - PRODUCT INFORMATION

PRODUCT NAME: ACC 22-P

PRODUCT DESC: Lock Down Encapsulant
Penetrating Encapsulant

PRODUCT CLASS: Copolymer Latex Coating - Water Dispersion

TRANSPORTATION INFORMATION: Shipping Class 55, Paint (No special labels are required.)

SECTION II - HAZARDOUS INGREDIENTS

Ingredient	Percent	Occupational Exposure Limit TLV	PEL	Vapor Pressure
Polymerized Latex Emulsion [CAS #9011-09-0]		N/E	N/E	

The components of this mixture are not designated carcinogenic by the National Toxicology Program (NTP) or the International Agency for Research or Cancer (IARC).

SECTION III - PHYSICAL DATA

BOILING RANGE: 212°F

VAPOR DENSITY: Lighter than air

EVAPORATION RATE: Slower than ether

VOLATILE VOLUME: 76% - 86%

WT/GAL: 9.0 lbs.

SPECIFIC GRAVITY: 1.08

SOLUBILITY IN WATER: Appreciable

VISCOSITY: Approx. 40 centipoises

DECOMPOSITION TEMP: Approx 240°F(115°C)

FREEZING POINT: 32°F(0°C)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: OSHA - IIIB DOT - Not Regulated
FLASH POINT - No flash to boiling 212°F (TCC).

LEL - Not available

EXTINGUISHING MEDIA:
X Foam X Alcohol Foam X CO2 X Dry Chemical X Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

SPECIAL FIREFIGHTING PROCEDURE: Product will not burn until water has evaporated. For dried film or residual solids, full protective equipment is recommended, including self-contained breathing apparatus.

SECTION V - HEALTH HAZARDS

EFFECTS OF OVEREXPOSURE: A TLV for this mixture has not been established.

Eye contact may cause moderate irritation. Prolonged skin contact may cause slight irritation. Exposure to concentrated vapors may cause some individuals to experience headaches or dizziness. Ingestion of the liquid may irritate the mucous membranes and gastrointestinal tract and may cause vomiting.

If headaches or dizziness are experienced by an individual, the product handling procedures and workplace ventilation should be examined.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: No available information.

PRIMARY ROUTES OF ENTRY: Dermal, Inhalation

EMERGENCY AND FIRST AID PROCEDURE: Skin: Wash with soap and water. Eyes: Flush with clean water at least 15 minutes. If irritation persists, consult physician. Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If irritation persists, consult physician. Ingestion: Give two glasses of water, induce vomiting, consult physician or poison control center. Never give anything by mouth to an unconscious person.

SECTION VI - REACTIVITY DATA

STABILITY: Stable HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will yield CO, CO2, AND HCl. CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (Materials to Avoid): Materials incompatible with water and strong oxidizers.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Major spills should be collected for disposal. Minor spills may be flushed to sewer if regulations permit. Before drying, product may be washed away with water; after drying, remove with a paint scraper or strong solvent.

WASTE DISPOSAL METHOD: In accordance with all applicable regulations. Review hazard section of this sheet before attempting clean-up. Empty containers are non-hazardous under RCRA as industrial waste.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: In restricted ventilation areas, or applications where mists or spray may be generated, avoid inhalation of airborne particulates by using an approved respirator with organic vapor cartridge with prefilter for mist or dust.

VENTILATION: General (mechanical) room ventilation is expected to be satisfactory. Local exhausts should be considered for coating operations.

PROTECTIVE GLOVES: Impervious gloves.

EYE PROTECTION: Goggles, faceshields, or other eyewear to protect from splash. As a general rule, contact lens should not be worn when working with chemicals.

OTHER PROTECTIVE EQUIPMENT: None.

HYGIENIC PRACTICES: Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid breathing vapors. Avoid application to hot surfaces, as vapors may be irritating. Keep container closed. Use with adequate ventilation. Store indoors at temperatures of 45°F - 90°F. Do not store in contact with iron, aluminum, zinc, copper, or other alloys.

OTHER PRECAUTIONS: For industrial/professional use only. Not intended for retail sale or use by individual consumers. Do not reuse container for potables or edibles.

MATERIAL SAFETY DATA SHEET CHEM-SAFE 100

COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS, (29 CFR 1910.1200)

I CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

DATE: 3/1/97
TRADE NAME; CHEM-SAFE 100
GENERAL OR GENERIC ID: HYDROCARBON MIXTURE
MANUFACTURED FOR: ARAMSCO
1655 IMPERIAL WAY
THOROFARE, NJ 08086
(800) 767-6933

24 HOURS TRANSPORTATION EMERGENCY NUMBER: CHEM-TREC (800) 424-9300

HMIS RATING; HEALTH (1) FIRE (2) REACTIVITY (0)
*4 = EXTREME, 3 = HIGH, 2 = MODERATE, 1 = SLIGHT, 0 = INSIGNIFICANT * = CHRONIC HAZARD*

II COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS#	ACGIH TLV	OSHA PEL	% OPTIONAL
HYDROCARBON MIXTURE	64742 - 88 - 7	NE	NE	
	(HOWEVER ARAMSCO RECOMMENDED PEL IS 525MG/M3 FOR 8-HOUR TWA) (EXPOSURE LIMITS FOR PETROLEUM DISTILLATE - STODDARD SOLVENT)			
ETHYLENE GLYCOL MONOBUTYL ETHER	111 - 76 - 2	25PPM	25PPM	

NE = NON ESTABLISHED AT THIS TIME

III PHYSICAL / CHEMICAL CHARACTERISTICS

BOILING RANGE: > 300F
VAPOR PRESSURE (mm hg): < 1
VAPOR DENSITY, (AIR = 1): > 1
SOLUBILITY IN WATER: EMULSIFIES
APPEARANCE AND ODOR: CLEAR LIQUID, WITH MILD ODOR
SPECIFIC GRAVITY (WATER = 1): .8077
MELTING POINT: N/A
EVAPORATION RATE (BUTYLACETATE = 1): < 1
PERCENT VOLATILE: 90 - 99

IV FIRE AND EXPLOSION DATA

FLASH POINT, (METHOD USED): 142F - 150F FLAMMABLE LIMITS: ND
EXTINGUISHING MEDIA: CO_2; WATER FOG; DRY CHEMICAL; CHEMICAL FOAM
FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE AND TOTAL PROTECTIVE CLOTHING.
UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, FLAMES AND OTHER IGNITION SOURCES.

V REACTIVITY DATA

STABILITY DATA: STABLE
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ACIDS / STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: THERMAL DECOMPOSITION MAY YIELD CO; CO_2; AND VARIOUS HYDROCARBONS.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

MATERIAL SAFETY DATA SHEET CHEM-SAFE 100

VI HEALTH HAZARD DATA

SIGNS AND SYMPTOMS OF EXPOSURE:

INHALATION: PROLONGED EXPOSURE MAY RESULT IN IRRITATION OF RESPIRATORY TRACT.

SKIN: PROLONGED EXPOSURE MAY CAUSE MILD SKIN IRRITATION. SYMPTOMS MAY INCLUDE REDNESS, DRYING AND CRACKING.

EYES: EXPOSURE MAY CAUSE IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING, AND REDNESS.

INGESTION: MAY CAUSE DIARRHEA, GASTRIC PAIN, AND VOMITING. MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND/OR DAMAGE.

HEALTH HAZARDS (ACUTE AND CHRONIC): HEADACHE, DIZZINESS, AND NAUSEA.

CARCINOGENICITY: NTP NO IARC MONOGRAPHS: NO OSHA REGULATED: NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN

EMERGENCY FIRST AID PROCEDURES

INHALATION: MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. PROVIDE OXYGEN OR ARTIFICIAL RESPIRATION IF NEEDED. SEEK MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION HAZARD. IF SPONTANEOUS VOMITING OCCURS, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNG. SEEK MEDICAL ATTENTION.

EYE CONTACT: FLUSH EYES WITH WATER HOLDING EYELIDS APART FOR 15 MINUTES. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. FLUSH AREA WITH WATER FOR 15 MINUTES. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

VII PRECAUTIONS FOR DISPOSAL, SAFE HANDLING, AND USE

SPILLS: SMALL SPILLS: ABSORB w/VERMICULITE OR OTHER ABSORBENT.

LARGE SPILLS: ELIMINATE ALL IGNITION SOURCES. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS, SEWERS, AND STREAMS. PUMP INTO APPROVED CONTAINERS, ABSORB UNRECOVERABLE PRODUCT AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. PROTECT CONTAINERS FROM ABUSE AND EXTREME TEMPERATURES.

OTHER PRECAUTIONS: EMPTIED CONTAINERS CONTAIN PRODUCT RESIDUES AND ALL PRECAUTIONS WITHIN THIS MSDS STILL APPLY AND SHOULD BE FOLLOWED.

VIII CONTROL MEASURES

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMITS OF PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS.

VENTILATION: MECHANICAL VENTILATION TO MAINTAIN EXPOSURE BELOW TLV'S

PROTECTIVE GLOVES: NEOPRENE OR RUBBER

EYE PROTECTION: CHEMICAL GOGGLES WITH SIDE SHIELDS

WORK/HYGIENIC PRACTICES: EXHIBIT NORMAL SAFE WORKPLACE HABITS.

MATERIAL SAFETY DATA SHEET CHEM-SAFE 100

IX TRANSPORTATION

DOT SHIPPING NAME: COMBUSTIBLE LIQUID, (CONTAINS HYDROCARBON MIXTURE)
PLACARDING: PLACARDING EXEMPTION 173 . 150 (F)
HAZARD CLASS: 3
IDENTIFICATION NO: NA1993
RACKING GROUP: III
RQ (REPORTABLE QUANTITY): N/A

X REGULATORY INFORMATION

SARA TITLE III: REPORTING ONLY REQUIRED FOR SECTION 311 / 312 (RIGHT-TO-KNOW INVENTORY)
CERCLA RQ: NOT REQUIRED

SPECIAL PRECAUTIONS / OTHER COMMENTS

The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need, that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibllity for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

GRAYLING INDUSTRIES, INC.

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

IDENTITY: **TAC SPRAY ADHESIVE**
NFPA RATING: 2-4-0-0
HMIS RATING: 2-4-0-B
DOT CLASS: ORM-D

MANUFACTURER:
GRAYLING INDUSTRIES, INC.
1008 BRANCH DRIVE
ALPHARETTA, GEORGIA 30004
DATE PREPARED: March 13, 1996

EMERGENCY PHONE NUMBER
(800) 535-5053 (INFOTRAC)

INFORMATION: (800) 635-1551

SECTION II - HAZARDOUS INGREDIENTS

	CAS :	OSHA PEL:	ACGIH TLV:
Hexane*	110-54-3	50 ppm	50 ppm
Acetone	67-64-1	1000 ppm	750 ppm
Isobutane/Propane Blend	75-28-5	1000 ppm	1000 ppm
	74-98-6		

**SARA III List*
Hazardous Components 1% or greater: Carcinogens 0.1% or greater.

SECTION III - PHYSICAL /CHEMICAL INGREDIENTS

Boiling Point: N/A
Vapor Pressure: PSIG @ 70°F (Aerosols) Max. 80
Vapor Pressure: (Non-Aerosols) (mm Hg and Temperature) : N/A
Vapor Density (AIR=1) : N/E
Solubility in Water: Partial
Specific Gravity (H20=1): Concentrate Only=0.853
Evaporation Rate (Butyl Acetate=1): N/A
Evaporation Rate (-1): N/E
Water Reactive: No
Appearance and Odor: Straw colored liquid with ketone solvent odor.

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLAMMABILITY AS PER USA FLAME PROJECTION TEST: Extremely Flammable
Auto Ignition Temperature: N/E
Flammability Limits in Air by % in Volume: % LEL: 1.8, % UEL: 25
Flash Point and Method Used (non-aerosols): -156°F (propellant)
Extinguisher Media : Foam, dry chemical, carbon dioxide, water

Special Fire Fighting Proccdurcs: Self-contained breathing apparatus. Use water fog to cool containers to prevent rupturing and exploding containers. Provide shielding for personnel.

Unusual Fire & Explosion Hazards: Do not expose aerosols to temperatures above 130°F or the container may rupture.

TAC SPRAY ADHESIVE

SECTION V - REACTIVITY DATA

Stability: Stable.
Conditions to Avoid: Open flame, welding arcs, heat sparks.
Hazardous Polymerization: Will not occur
Incompatibility (Materials to Avoid): Strong oxidizing agents
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide

SECTION VI - HEALTH HAZARD DATA

Primary routes of entry: Inhalation, Skin Absorption

Skin Contact: Irritation due to defatting of skin. Wash with soap and water. If irritated, seek medical attention.
Eye Contact: Irritation. Flush with water for 15 minutes. If irritated, seek medical attention.
Ingestion: Possible chemical pneumonitis if aspirated into lungs. DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.
Inhalation: Excessive inhalation vapors may cause nasal & respiratory irritation, dizziness, weakness, nausea, headache, possible unconsciousness of asphyxiation. Remove to fresh air. Resuscitate if necessary. Get medical attention.

CHRONIC EFFECTS: (Effects due to excessive exposure to the raw materials of this mixture) Excessive inhalation of hexene may cause nerve damage.

Medical Conditions Generally Aggravated by Exposure: May aggravate existing eye, skin, or upper respiratory conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING/USE

STEP TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulations. DO NOT FLUSH TO SEWER.
WASTE DISPOSAL METHOD: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Do not puncture or incinerate containers. Do not store at temperatures above 130°F.
OTHER PRECAUTIONS AND /OR SPECIAL HAZARDS: ***KEEP OUT OT REACH OF CHILDREN.***
Avoid food contamination. Avoid breathing vapors. Remove ignition source.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: If vapor concentration exceeds TLV, use respirator approved by NIOSH in positive pressure mode.
VENTILATION: Adequate ventilation to keep vapor concentration below TLV.
PROTECTIVE GLOVES: Use impermeable neoprene gloves.
EYE PROTECTION: Safety glasses recommended.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None
WORK/HYGIENIC PRACTICES: Wash with soap and water before handling food. Remove contaminated clothing.

MATERIAL SAFETY DATA SHEET
MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATIONS STANDARD, (29 CFR. 1910.1200)

U.S. DEPARTMENT OF LABOR

SECTION I:

UNITED SAFETY AND ABATEMENT PRODUCTS
5552 COMMERCE PARK BOULEVARD
TAMPA, FLORIDA 33610

PRODUCT IDENTIFICATION:
NON-CHLORINATED AEROSOL ADHESIVE

P/N AS101USA

REVISION DATE: 3/92

SECTION II: HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S)		OSHA PEL	ACGIH TLV	% OPTIONAL
ACETONE	CAS 67-64-1	1000 PPM	750 PPM	10-20
PROPANE/ISOBUTANE	CAS 68476-86-8		850	20-40
HEXANE	CAS 110-54-3		50	20-40

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: (CONCENTRATE ONLY) >133°F SPECIFIC GRAVITY (H_2O - 1), 1.05
VAPOR PRESSURE (PSIG) @ 20°C: 44 MELTING POINT: N/A
VAPOR DENSITY (AIR = 1) : >1
EVAPORATION RATE: (N-BUTYL ACETATE = 1) >1
SOLUBILITY IN WATER: INSOLUBLE
APPEARANCE AND ODOR: CLEAR, VISCOUS LIQUID WITH ETHER-LIKE ODOR

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) : (PROPELLENT ONLY) -156°F (TCC)
EXTINGUISHING MEDIA: CO_2, FOAM, DRY CHEMICAL
SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS
KEEP CONTAINERS COOL WITH WATER FOG TO PREVENT BURSTING
UNUSUAL FIRE AND EXPLOSION HAZARDS: RUPTURED CONTAINERS MAY "ROCKET" OUT OF LOCALIZED AREA, CAUSING POSSIBLE INJURY AND SPREAD OF FIRE

SECTION V: REACTIVITY DATA

PRODUCT IS STABLE.
CONDITIONS TO AVOID: SOURCES OF EXTREME HEAT
INCOMPATIBILITY (MATERIALS TO AVOID) : STRONG OXIDIZERS, ALUMINUM METAL
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: CO, CO_2, HcL AND TRACES OF PHOSGENE
HAZARDOUS POLYMARIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE

Continued---

MATERIAL SAFETY DATA SHEET — U.S DEPARTMENT OF LABOR
COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS, (29 CFR 1910.1200)

SECTION I: MANUFACTURED FOR

ABATEMENT TECHNOLOGIES, INC.
3305 BRECKINRIDGE BLVD.
SUITE 118
DULUTH, GEORGIA 30136
EMERGENCIES: (404) 925-2761

PRODUCT IDENTIFICATION

AS-101 ADHESIVE

SECTION II: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (CAS #)	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
1-1-1 TRICHLOROETHANE (71-55-6)	350	350		20-70
PROPANE/ISOBUTANE (68476-86-8)		850		10-40
ACETONE (67-64-1)	750	750		20-70

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: (CONCENTRATE ONLY) 160°F SPECIFIC GRAVITY (H_2O = 1): 1.25
VAPOR PRESSURE (PSIG) @ 20°C: 44 MELTING POINT: N/A
VAPOR DENSITY (AIR = 1): 1 EVAPORATION RATE: (N-BUTYL ACETATE = 1
SOLUBILITY IN WATER: INSOLUBLE
APPEARANCE AND ODOR: CLEAR, VISCOUS LIQUID WITH ETHER-LIKE ODOR.

SECTION IV: - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): (PROPELLANT ONLY) -156°F (TCC)
FLAMMABLE LIMITS: UNKNOWN
EXTINGUISHING MEDIA: CO_2, FOAM, DRY CHEMICAL
SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS. KEEP CONTAINERS COOL WITH WATER FOG TO PREVENT BURSTING.
UNUSUAL FIRE AND EXPLOSION HAZARDS: RUPTURED CONTAINERS MAY "ROCKET" OUT OF LOCALIZED AREA CAUSING POSSIBLE INJURY AND SPREAD OF FIRE.

SECTION V: REACTIVITY DATA

PRODUCT IS STABLE.
CONDITIONS TO AVOID: SOURCES OF EXTREME HEAT
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS, ALUMINUM METAL
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: CO, CO_2, HCl AND TRACES OF PHOSGENE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE

SECTION VI - HEALTH HAZARD DATA
ROUTE(S) OF ENTRY:
INHALATION: YES SKIN: YES INGESTION: YES
HEALTH HAZARDS: (ACUTE AND CHRONIC): ACUTE: SEVERE EYE IRRITATION.
CHRONIC: HAS BEEN SUGGESTED TO CAUSE CARDIAC ABNORMALITIES, LIVER, KIDNEY AND LUNG DAMAGE.
CARCINOGENICITY: NPT: NO IARC MONOGRAPHS: NO OSHA REGISTERED: NO
SIGNS AND SYMPTOMS OF EXPOSURE: INHALATION: DIZZINESS, WEAKNESS AND EVEN DEATH IF EXPOSURE IS SEVERE. EYES & SKIN: SEVERE IRRITATION
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: CARDIAC ABNORMALITIES

**********EMERGENCY AND FIRST AID PROCEDURES**********

SKIN CONTACT: WASH WITH SOAP AND WATER
EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES. CALL PHYSICIAN IF IRRITATION PERSISTS.
INHALATION: REMOVE TO FRESH AIR, GIVE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

****

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ELIMINATE SOURCES OF IGNITION, VENTILATE AREA, SOAK UP WITH ABSORBENT MATERIAL.
WASTE DISPOSAL METHOD: IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
STORAGE AND HANDLING: DO NOT PUNCTURE, INCINERATE, STORE ABOVE 120°F. KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME.
OTHER PRECAUTIONS: DELIBERATE CONCENTRATION AND INHALATION OF VAPORS CAN BE HARMFUL OR FATAL. KEEP OUT OF REACH OF CHILDREN.

****

SECTION VIII - CONTROL MEASURES
RESPIRATORY PROTECTION (SPECIFY TYPE): ORGANIC VAPOR CARTRIDGE RESPIRATO
VENTILATION: LOCAL EXHAUST: SUFFICIENT TO MAINTAIN TLV
SPECIAL: NONE
MECHANICAL (GENERAL): IN LOW AREAS
OTHER: NONE
PROTECTIVE GLOVES: RECOMMENDED
EYE PROTECTION: SAFETY GLASSES AND CHEMICAL SPLASH GOGGLES
OTHER PROTECTIVE CLOTHING/EQUIPMENT: SUITABLE TO PROTECT BARE SKIN, SHOES AND CLOTHING.
WORK/HYGIENIC PRACTICES: GENERAL GOOD HOUSEKEEPING. MINIMIZE BREATHING VAPOR OR MIST.

WALEX® PRODUCTS COMPANY, INC.

Performance Products. . .For Performance Needs

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

PRODUCT NAME:	REVISION NO.	DATE PREPARED	CODE NO.
EXODOR® DISODORIZER & ODOR NEUTRALIZER CONCENTRATE	3	11/27/95	

SYNOMNS:
NONE

HEALTH: 2 FIRE: 1 REACTIVITY: 0
HAZARD RATING: 0-LEAST, 1-SLIGHT, 2-MODERATE, 3-HIGH, 4-EXTREME

II. PRECAUTIONARY STATEMENTS (from products label)

CAUTION: CAUSES EYE IRRITATION

DO NOT GET IN EYES, AVOID EXCESSIVE SKIN CONTACT, AVOID CONTAMINATION OF FOOD. IF SPLASHED IN EYES IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN. PROLONGED CONTACT WITH SKIN MAY BE IRRITATING. **KEEP OUT OF REACH OF CHILDREN.**

III. HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	%	HAZARD
N-ALKYL DIMETHYL ETHYL BENZYL AMMONIUM CHLORIDE	68956-79-6	2.5	

OTHER COMPONENTS CONSISTING OF 4.5% BY WEIGHT ARE CONSIDERED A TRADE SECRET AND ARE EXCLUDED FROM DISCLOSURE UNDER TERMS OF OSHA 29CFR 1926.59 AND 29CFR 1928.21. IDENTITY OF THE EXCLUDED CHEMICALS WILL BE MADE AVAILABLE TO HEALTH PROFESSIONALS AS NECESSARY FOR EMERGENCY OR OTHER PURPOSES.

IV. HEALTH EFFECTS

SKIN:	PROLONGED OR REPEATED CONTACT WITH SKIN MAY CAUSE IRRITATION SYSTEMICALLY TOXIC CONCENTRATIONS WILL PROBABLY NOT BE ABSORBED THROUGH HUMAN SKIN.
EYES:	CONTACT WITH EYES IS PAINFUL AND SEVERELY IRRITATING.
SWALLOWING:	THIS MATERIAL MAY BE TOXIC IF INGESTED. IRRITATION OF THE MOUTH, LARYNX AND ESOPHAGUS MAY OCCUR.
BREATHING:	SOLVENT VAPORS OR AEROSOL MISTS CAN CAUSE IRRITATION OF MUCOUS MEMBRANES.

V. FIRST AID

ON SKIN:	WASH MATERIAL OFF OF THE SKIN WITH SOAP AND WATER. IF REDNESS OR ITCHING SENSATION DEVELOPS, GET MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING AND DECONTAMINATE FOOTWEAR BEFORE REUSING.
IN EYES:	IMMEDIATELY FLUSH WITH PLENTY OF WATER. AFTER INITIAL FLUSHING REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING FOR AT LEAST 15 MINUTES. HAVE EYES EXAMINED AND TREATED BY MEDICAL PERSONNEL.
SWALLOWED:	IF SWALLOWED, DO NOT INDUCE VOMITING. DRINK 3-4 GLASSES OF MILK, IF UNAVAILABLE, GIVE WATER. AVOID ALCOHOL. SEEK MEDICAL ATTENTION.
BREATHED:	REMOVE PERSON TO FRESH AIR. IF A COUGH OR OTHER RESPIRATORY SYMPTOMS DEVELOP, CONSULT MEDICAL PERSONNEL.

VI. EMPLOYEE PROTECTION

RESPIRATORY:	NOT REQUIRED UNDER NORMAL USE CONDITIONS.
HANDS:	CHEMICAL RESISTANT GLOVES.
EYES:	SAFETY GLASSES WITH SIDE SHIELDS.
OTHER:	EYE WASH STATION.

VII. PHYSICAL DATA

INITIAL BOILING POINT:	IF LIQUID AT 68°F APPROX. 214°F
SPECIFIC GRAVITY:	APPROX. 0.95
VAPOR PRESSURE:	IF LIQUID AT 68°F FOR WHICH SUBLIME - NO DATA
PERCENT VOLATILES:	INGREDIENT WITH INITIAL BOILING POINT BELOW 425°F - NO DATA
VAPOR DENSITY:	SIMILIAR TO WATER
pH:	100%, 6.5 - 8.0
PHYSCIAL FORM:	COLORLESS LIQUID
SOLIBILITY IN H20:	STABLE

VIII. REACTIVITY

HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR
STABILITY:	STABLE
INCOMPATIBILITY:	STRONG OXIDIZERS AND REDUCING AGENTS

IX. FIRE AND EXPLOSION DATA

FLASH POINT:	DOES NOT FLASH
EXPLOSION LIMIT:	NO DATA
AUTOIGNITION TEMPERATURE:	NO DATA
SPECIAL FIRE FIGHTING PROCEDURES:	NONE, USE MEDIA SUITABLE FOR SURROUNDING FIRE
UNUSUAL FIRE AND EXPLOSION HAZARDS:	NONE KNOWN
EXTINGUISHING MEDIA:	NOT APPLICABLE.

X. SPILL OR LEAK PROCEDURES

CONTAIN SPILL. KEEP OUT OF SEWER OR DRAINS. SOAK UP MATERIAL WITH ABSORBENT AND SHOVEL INTO A CHEMICAL WASTE CONTAINER. WASH DOWN AREA TO A MUNICIPAL SEWER. WEAR SKIN AND EYE PROTECTION DURING CLEAN UP.

XI. WASTE DISPOSAL METHODS

OPEN DUMPING IS PROHIBITED. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DISCARD PRODUCT IS NOT A HAZARDOUS WASTE UNDER RCRA, 40 CFR 261. HOWEVER, THIS MATERIAL IS A TOXIC TO FISH. DO NOT CONTAMINATE WATERWAYS BY CLEANING OF EQUIPMENT OR BY DISPOSAL OF WASTES.

EMPTY CONTAINER RETAINS PRODUCT RESIDUE. OBSERVE ALL HAZARD PRECAUTIONS UNTIL CONTAINER IS CLEANED, RECONDITIONED OR DESTROYED.

XII. OTHER INFORMATION

NOTE TO PHYSICIAN:

NO ACGIH TLV OR OSHA PEL ASSIGNED.
EXPOSURE TO AEROSOL SHOULD BE MINIMIZED.
ALL INGREDIENTS ARE ON THE TSCA SECTION 8 (B) INVENTORY.
THIS PRODUCT OR IT'S COMPONENTS ARE NOT LISTED IN IARC MONOGRAPHS, THE NTP FOURTH ANNUAL REPORT OR THE CURRENT ACGIH TLV'S AS A CARCINOGEN OR POTENTIAL CARCINOGEN. IT IS NOT REGULATED BY OSHA AS A CARCINOGEN.

WALEX® PRODUCTS COMPANY, INC.
P.O. BOX 3785, WILMINGTON, N.C. 28406
1-800-338-3155 • (910) 371-2242 • FAX (910) 371-2094

Foster®
An H.B. Fuller Company

PRODUCT DATA
40-80

PROPERTIES

COLOR
Light Green

TYPE
Quaternary Ammonium Chloride

VOLATILE
Water

WEIGHT PER U.S. GALLON (ASTM D 1475)
8.2 lbs. (.98 kg/l)

APPLICATION CONSISTENCY
Wipe, or Spray

ODOR
Mild, pleasant odor when wet, none when dry.

AVERAGE COVERAGE RANGE
Dependent upon the method of application and the surface. Apply in sufficient quantity to insure that the surface remains wet continuously for at least ten (10) minutes.

ALKALINITY (ASTM E-70)
9.6 pH

SAFETY
Wet flammability (ASTM D-3278)
No flash to boiling, 212°F, (100°C)

FOSTER® 40-80 HVAC & WALL DISINFECTANT

FOSTER® 40-80 HVAC & Wall Disinfectant is a disinfectant-cleaner-fungicide-mildewstat-virucide-deodorizer designed for hospital, institutional, commercial, and industrial use.

FOSTER® 40-80 HVAC & Wall Disinfectant is an EPA Registered formulation, a full strength disinfectant, and comes in a convenient ready-to-use dilution. 40-80 has been evaluated in the presence of 5% serum by the AOCA Use-Dilution test and found to be effective against a broad spectrum of gram-negative and gram-positive organisms.

FOSTER® 40-80 HVAC & Wall Disinfectant offers user safety in that end-users need not work with a corrosive and sometimes dangerous concentrate. 40-80 carries "CAUTION" as a signal safety word.

FOSTER® 40-80 HVAC & Wall Disinfectant comes full strength for effective and economical use. Concerns about underdilution or over production and disposal are eliminated.

LIMITATIONS
Do not store or apply to surfaces below 32°F (0°C) or above 100°F (38°C).

For use on hard (inanimate) non-porous surfaces. Not recommended for use on duct liner insulations. Consult the material safety data sheet for additional information.

EPA REGISTRATION NO. 6836-152-63836
EPA ESTABLISHMENT NO. 63836-TX-001

FOR INDUSTRIAL USE ONLY.
KEEP OUT OF REACH OF CHILDREN.

over

Foster
Products Corporation

3210 LaBore Road

APPLICATION GUIDE FOR FOSTER® 40-80 HVAC & WALL DISINFECTANT

MATERIAL PREPARATION
DO NOT DILUTE! FOSTER 40-80 HVAC & Wall Disinfectant comes full strength. Any attempt to dilute the material will drastically reduce the efficacy of the material.

SURFACE PREPARATION
Remove all accumulations of dirt, grease or contamination prior to the application of 40-80.

SITE PREPARATION
Follow all procedures mandated by Federal, State, and local authorities regulating the use of EPA Registered disinfectants, if any.

APPLICATION
Apply FOSTER 40-80 HVAC & Wall Disinfectant to the interior of HVAC ductwork and related air handling equipment and, other hard, (inanimate) non-porous surfaces by spray or wipe. Insure that 40-80 comes in direct contact with the surface to be treated and that the treated surface remains wet for at least 10 minutes.
NOTE: Where mist or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices. In the absence of proper environmental controls, a NIOSH/MSHA jointly approved respirator is advised.

SPRAY OR FOGGING EQUIPMENT
Because of the low viscosity of 40-80, it can be applied with virtually any type of spray equipment on the market today. For additional information, contact your Foster Area Manager or your Foster Indoor Air Quality Materials distributor.

CLEAN-UP
Thoroughly rinse all equipment with tap water until all evidence of 40-80 is eliminated. Dispose of saturated wipes in accordance with local regulations. Triple rinse (or equivalent) containers. If spilled, dike and contain with inert materials (sand, earth, etc.) and transfer the liquid and solids separately to containers for recovery or disposal. See Materials Safety Data Sheet for more information on disposal.

PRECAUTIONS
Wear safety glasses to reduce the potential for eye contact; chemical safety goggles are appropriate if splashing is likely. Have eye washes available where eye contact can occur. Prevent prolonged or repeated contact with skin by using rubber gloves and appropriate protective clothing. Respiratory protection is not normally required. Use NIOSH/MSHA jointly approved respirator if conditions warrant. Harmful if swallowed. Consult Material Safety Data Sheet and Container label for further information.

KEEP OUT OF REACH OF CHILDREN.

Cross-contamination is of major housekeeping concern not only in hospitals, but in schools, institutions and industry. Foster 40-80 HVAC & Wall Disinfectant has been formulated to aid in the reduction of cross-contamination in these areas.

Foster 40-80 HVAC & Wall Disinfectant is a one-step disinfectant-cleaner that is effective against a broad spectrum of bacteria, is virucidal, and controls the growth of mold and mildew and their odors when used as directed.

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION:

Keep Out Of Reach of Children. May cause eye irritation and skin irritation. Do not get in eyes, on skin, or on clothing. Wear rubber gloves when handling. Harmful if swallowed. Avoid contamination of food. Wash thoroughly with soap and water after handling.

STORAGE AND DISPOSAL:

- Do not contaminate water, food, or feed by storage or disposal.
- Do not store on side.
- Avoid creasing or impacting of side walls.

PESTICIDE DISPOSAL:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray or mixture of rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Metal Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Foster® 40-80

HVAC & WALL DISINFECTANT

Disinfectant - Cleaner -
Mildewstat - Virucide - Deodorizer
for Hospitals, Institutional and Industrial Use

Effective in the presence of 5% serum contamination

Active Ingredients:	
Octyl decyl dimethyl ammonium chloride	0.025%
Dioctyl dimethyl ammonium chloride	0.010%
Didecyl dimethyl ammonium chloride	0.015%
Alkyl (C_{14}, 50%; C_{12}, 40%; C_{16}, 10%) dimethyl benzyl ammonium chloride	0.034%
Inert Ingredients:	99.916%
	100.000%

KEEP OUT OF REACH OF CHILDREN

CAUTION!

STATEMENT OF PRACTICAL TREATMENT:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before reuse.
If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution; or if these are not available, drink large quantities of water.
FOR EMERGENCY MEDICAL INFORMATION PLEASE CALL:
1-800-228-5535 x018.
SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Marketed By:
Foster Products Corporation
An H.B. Fuller Company
6107 Industrial Way
Houston, Texas 77011

EPA Registration No. 6836-152-63836
EPA Est. No. 63836-TX-001
Net Contents: 5 gallons

Foster 40-80 5gal. 5/10/94

DIRECTIONS FOR USE
It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Foster 40-80 HVAC & Wall Disinfectant is a "onestep" disinfectant-cleaner-mildewstat-virucide which is effective in the presence of 5% serum contamination.

Apply 40-80 HVAC & Wall Disinfectant undiluted to walls, floors and other hard (inanimate) non-porous surfaces with a mechanical spray device so as to thoroughly wet surfaces. For heavily soiled areas, a preliminary cleaning is required.

For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface, rub with brush, sponge or cloth. Do not breathe spray mist.

DISINFECTION - To disinfect hard, non-porous surfaces, treated surfaces must remain wet for 10 minutes.
For Schools, Industry and Medical Institution Use: The activity of Foster 40-80 HVAC & Wall Disinfectant has been evaluated in the presence of 5% serum by the AOAC Use-Dilution test and found to be effective against a broad spectrum of gram negative and gram positive organisms tested:

Pseudomonas aeruginosa	Enterobacter aerogenes
Staphylococcus aureus	Streptococcus faecalis
Salmonella choleraesuis	Shigella dysenteriae
Escherichia coli	Brevibacterium ammoniagenes
Streptococcus pyogenes	Salmonella typhi
Klebsiella pneumoniae	Serratia marcescens

MOLD AND MILDEW CONTROL. Foster 40-80 HVAC & Wall Disinfectant will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard, non-porous surfaces (as indicated in general instructions above). Allow to dry on surface and repeat when mildew growth returns.

VIRUCIDAL PERFORMANCE: Foster 40-80 HVAC & Wall Disinfectant was evaluated and found to be effective in the presence of 5% serum against the following viruses:

Influenza A/Brasil
Herpes Simplex Type 1 and Type 2
Vaccinia

on inanimate hard non-porous environmental surfaces.

5/94

FD-4080
Date Printed: 12/04/96

MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION

Foster Products Corporation
H.B. Fuller Company Subsidiary
2900 Granada Lane
Oakdale MN, 55128
Phone: 612-481-3785
Fax: 612-481-3781

MSDS INFORMATION

Preparation Date: 06/29/95
Supersedes: 06/22/95
Prepared By: Industrial Hygiene
Phone Number: 612-415-5842

Medical Emergency Phone Number: 1-800-228-5635 ext 018
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT INFORMATION

Product Name/Number: FOSTER 40-80 DISINFECTANT
Trade Name: HVAC AND WALL DISINFECTANT
Product Description (product use): DISINFECTANT

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Unlisted ingredients are not 'hazardous' per the OSHA standard and/or are not found on the WHMIS ingredient disclosure list.

See Section 16 for additional information.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

No specific warnings for normal use conditions.

POTENTIAL HEALTH EFFECTS

Eyes: Eye contact with liquid product may cause irritation.

Skin: Prolonged or repeated contact with liquid product may cause irritation.

Inhalation: Inhalation is not an anticipated route of exposure.

Ingestion: Not an anticipated route of exposure. Small amounts are not anticipated to be harmful.

Chronic: No anticipated chronic effects.

REGULATED CARCINOGEN STATUS:

This product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

Existing Health Conditions Affected by Exposure: No known effects on other illnesses.

SECTION 4: FIRST AID MEASURES

If in eye: Flush immediately with water for 15 minutes. Consult a physician if irritation persists.

If on skin: Wash affected area with soap and water. Launder contaminated clothing before reuse.

If vapors inhaled: Remove subject to fresh air.

If ingested: If person can swallow, give one glass of water or milk. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point/Method: >200 degrees F SETA

Upper Explosive Limit/Lower Explosive Limit: Not applicable

Autoignition Temperature: Not applicable

Appropriate Extinguishers: Non-flammable in liquid state; use water spray, foam, dry chemical or carbon dioxide on dried product.

Special Fire Fighting Procedures: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

Unusual Fire and Explosion Hazards: There is the possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.

Hazardous Combustion Product: Incomplete combustion can yield low molecular weight hydrocarbons, carbon monoxide

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds or water systems.

SECTION 7: HANDLING AND STORAGE

HANDLING INFORMATION

Wear appropriate protective equipment when working with this product.

STORAGE INFORMATION

Avoid temperature extremes in storage.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses to reduce the potential for eye contact; chemical safety goggles are appropriate if splashing is likely. Have eye washes available where eye contact can occur.

Skin Protection: Prevent prolonged or repeated contact by using rubber gloves and appropriate protective clothing. Launder contaminated clothing before reuse.

Respiratory Protection: Not normally required. Use NIOSH/MSHA approved respirator if conditions warrant.

Ventilation: General dilution ventilation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	LIQUID
Color:	LIGHT GREEN
Odor:	SWEET; PERFUME
Odor Threshold:	Not established
Weight per Gallon:	8.32 lbs.
Specific Gravity:	0.98
% Solids by Weight:	0.2
pH:	9.65
Boiling Range:	Greater than 200 F (93 C)
Freezing/Melting Point:	Not established
Vapor Pressure:	Not established
Vapor Density:	Not established
Evaporation Rate:	Not established

Water/Oil Partition Coefficient: Not established

VOC:	0.2 g VOC/liter of material (VOC theoretically determined using EPA Publication 450/3-84-019)
VOC, less water:	39.7 g VOC/liter of material, less water and exempt solvents (VOC theoretically determined using EPA Publication 450/3-84-019.)

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable

Incompatibility: Not established

Hazardous Decomposition: Not established

Hazardous Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

No data available

SECTION 12: ECOLOGICAL INFORMATION

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14: TRANSPORTATION INFORMATION

UNITED STATES DEPARTMENT OF TRANSPORTATION (DOT)

DOT Proper Shipping Name:	COMPOUND, CLEANING, LIQUID, N.O.I.
DOT Hazard Class/I.D. Code:	NOT REGULATED
DOT Label:	NONE
Marine Pollutants:	N

It is our opinion that the information provided here may be used to transport this product in compliance with Canadian Transporation of Dangerous Goods.

INTERNATIONAL TRANSPORTATION

IATA Proper Shipping Name:	COMPOUND, CLEANING, LIQUID, N.O.I.
IATA Hazard Class:	NOT REGULATED
IATA Label:	NONE

SECTION 15: REGULATORY INFORMATION

FEDERAL

Toxic Substances Control Act (TSCA)

Section 8(b) - Inventory Status

All components of this product are registered under the regulations of the Toxic Substances Control Act.

SARA TITLE III

Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

STATE REGULATIONS

California Proposition 65: Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

This product contains chemical(s) known to the state of California to cause cancer (c) or reproductive (r) damage.
<0.0006% Nitrilotriacetic acid (c) 139-13-9
listed January 1, 1988

WHMIS IDENTIFICATION/OTHER INTERNATIONAL REGULATIONS

D2B

SECTION 16: ADDITIONAL INFORMATION

HMIS RATING

Health-1 Flammability-0 Reactivity-0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, express or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility from use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.

MATERIAL SAFETY DATA SHEET

6073

anufacturer's Name	:	THE RAMSEY COMPANY	**HMIS Rating**
Address	:	120 Bartlett Street Marlborough, MA 01752-3065	**Health** 1 **Flammability** 0 **Reactivity** 0
Telephone Number	:	(508) 485-3814	
Emergency Telephone	:	(800) 228-5635 Ext. 118	
Contact Person	:	Peter Batchelder	
Date Prepared	:	October 15, 1995	
Date Revised	:	Not Applicable	

IDENTITY

Common Name KIL-ODER FRESH APPLE

Proper Shipping Name; Hazard Class; Hazard ID No.: Non Hazardous

INGREDIENT INFORMATION

Principal Hazardous Component(s)	CAS No.	%	Threshold Limit
able bacterial cultures (largely water)	NA	3-7	NE
Alkoxylated fatty alcohol	69227-21-0	1-5	NE
Linear primary alcohol ethoxylate	34398-01-1	0.5-1.5	NE
Fragrance mixture	NA	1-5	NE

SARA Title III Section 313 and 40 CFR Part 372 Notification:
Ingredients in this product are not currently subject to notification

PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point 212°F Specific Gravity 1.0 Vapor Pressure ND

Percent Volatile by Volume 96 Vapor Density ND Evaporation Rate ND

Solubility in Water Complete pH 8.8

Appearance and Odor Clear green liquid; apple fragrance

Flash Point >200°F (T.C.C.) Extinguisher Media NA

Special Fire Fighting Procedures This product is not flammable

Unusual Fire and Explosion Hazards None known to The Ramsey Company

ND Not Determined, NE Not Established, NA Not Applicable

REACTIVITY DATA

ibility Stable **Conditions to Avoid** None known to The Ramsey Company
Incompatibility Strong oxidizers; strong acids or alkali may inactivate cultures.
Hazardous Decomposition Products Normal products of combustion
Hazardous Polymerization Will Not Occur
Conditions to Avoid None known to The Ramsey Company

HAZARD DATA

Signs and Symptoms of Exposure Direct contact of product with eyes and skin may cause irritation. Ingestion may cause mouth, throat and stomach irritation. Inhalation of mist may cause mild nose, throat and respiratory tract irritation. Prolonged or repeated contact can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Allergic skin reaction may also occur. Organisms used in this product are non-pathogenic but can cause infection when in contact with open wounds. Pre-existing eye, skin, and respiratory disorders may be aggravated.

Chemicals Listed as Carcinogens or Potential Carcinogens None

Emergency and First Aid Procedures
1. **Inhalation** Remove to fresh air. Call a physician if symptoms persist.
2. **Eyes** Flush with water for at least 15 minutes. Call a physician.
3. **Skin** Wash with soap and water. Call a physician if irritation develops or if open wounds are present.

Ingestion Drink large quantities of water. Do not induce vomiting. Call a physician.

SPECIAL PROTECTION INFORMATION

Respiratory Protection None required if good ventilation is maintained. Avoid creating aerosols in poorly ventilated areas.
Protective Gloves If prolonged or repeated contact is possible, wear rubber or other impervious gloves.
Eye Protection Where eye contact may occur, wear chemical splash goggles.

SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Handling and Storage Use good personal hygiene practice. Wash contaminated clothing and equipment before reuse.
Release or Spill Before attempting clean-up, refer to Hazard Data above. Use mop, absorbent or wet vacuum to collect material for proper disposal. Rinse area with water.
Waste Disposal Dispose of this material in accordance with federal, state, and local regulations.

Buckeye International, Inc.
2700 Wagner Place
Maryland Heights, MO 63043
314/291 1900

Material Safety Data

N.F.P.A.
4= Extreme
3= High
2= Moderate
1= Slight
0= Insignificant

HEALTH	1
FIRE	0
REACTIVITY	0

24 Hour Emergency Telephone Number: 1-800-228-5635 Extension: 076

SECTION I - IDENTIFICATION

PRODUCT NAME: BUCKEYE SANICARE PINE QUAT	DATE PREPARED: June 1, 1995
CHEMICAL FAMILY: Cleaner Disinfectant, Water Based	CODE: 5078
PROPER D.O.T. SHIPPING NAME: Disinfectant, Liquid, NOIBN	
D.O.T. HAZARD CLASSIFICATION: None	

SECTION II - INGREDIENTS AND IDENTITY INFORMATION

% BY WEIGHT	MATERIAL	PEL	T.L.V.	C.A.S. NO.
3.85	Blend of Didecyl Dimethyl and n-Alkyl Dimethyl	NE	NE	7173-51-5
	Benzyl Ammonium Chlorides			68424-85-1
>91.15	Soft Water	NE	NE	7732-18-5
<4.0	Octyl Dimethyl Amine Oxide	NE	NE	2605-78-9
<1.0	Perfume Coloring and Additives less than 1%	NA	NA	NA

ITEMS MARKED * ARE SARA TITLE III SEC 313 REPORTABLES

SECTION III - PHYSICAL DATA

BOILING POINT °F	212°F	pH (CONC.)	7.6±0.2
SOLUBILITY IN WATER	Infinite	pH (USE DILUTION) 1:64	7.0±0.2
% VOLATILE BY WEIGHT	94.0	EVAPORATION RATE (Water=1)	1.0
SPECIFIC GRAVITY	1.00	LIQUID [X] POWDER [ ] PASTE [ ] AEROSOL [ ]	
APPEARANCE AND ODOR	Pine, Clear Green Solution		

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD)	Tag Closed Cup: None!	FLAMMABLE LIMITS	
		UPPER	LOWER
EXTINGUISHING MEDIA: [ ] NA [ ] CO_2 [ ] FOAM [ ] DRY CHEMICAL [ ] WATER [ ] OTHER		N/A	N/A
SPECIAL FIRE FIGHTING PROCEDURES	None		
UNUSUAL FIRE AND EXPLOSION HAZARDS	Products of combustion. Oxides of carbon and nitrogen.		

SECTION V - REACTIVITY DATA

STABILITY	STABLE	X	CONDITIONS TO AVOID	None Known
	UNSTABLE			
INCOMPATIBILITY	Do not mix with Chlorine Bleach or Anionic detergents.			
HAZARDOUS DECOMPOSITION PRODUCTS	None Known			
HAZARDOUS POLYMERIZATION	WILL OCCUR		WILL NOT OCCUR	X

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: INHALATION? No SKIN? Yes INGESTION? No

HEALTH HAZARDS (*Acute and Chronic*)

Causes eye and skin irritation.

CARCINOGENICITY: NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No

SIGNS AND SYMPTOMS OF OVEREXPOSURE

For Skin: Redness of skin or a warming sensation.
For Eyes: Redness or burning sensation.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

None known.

EMERGENCY AND FIRST AID PROCEDURES In case of contact, immediately flush eyes or skin with plenty of water. If irritation persists, seek medical attention.
For Ingestion: Give two large glasses of water. DO NOT induce vomiting. Call physician.
Never give anything by mouth to an unconscious person.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL RESPONSE

Pick up with mop, wet/dry vac or absorbent material. Rinse area with clear water and allow floor to dry before allowing traffic.

WASTE DISPOSAL METHOD

Dilute with water and flush to sanitary sewer, or send to sanitary landfill, following local, state and federal laws.

SECTION VIII - SPECIAL PROTECTION INFORMATION

EYE PROTECTION When eye contact may occur, wear safety glasses or chemical splash goggles.

VENTILATION Normal room ventilation.

SKIN PROTECTION Rubber gloves or other impervious gloves. *

RESPIRATORY PROTECTION None Required.

OTHER PROTECTION None Required. Follow good personal hygiene practices.

*Needed for clean up of spill or for possible prolonged skin contact.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS IN HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!
Rinse container before discarding.
Keep container closed when not in use.
Store at room temperature.

OTHER PRECAUTIONS

This product is not regulated under CERCLA or RCRA.
Not reportable under SARA Title III Section 311/312.

NE=Not Established NA=Not Applicable

PREPARED BY: Mark Gindling, Director of Research

HEALTH
FIRE
REACTIVITY

MATERIAL SAFETY DATA SHEET
COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS, (29 CFR 1910.1200).

U.S. DEPARTMENT OF LABOR

****

SECTION I :

PRODUCT IDENTIFICATION

ABATEMENT TECHNOLOGIES
SUITE # 160
1705 BELLE MEADE COURT
LAWRENCEVILLE, GA 30243
EMERGENCIES : (404)-339-2600

SUPER WATER WETTER
NONIONIC SURFACTANT
P/N AS205

MOR: 10/29/85-108
REVISION DATE: 3/92

****

SECTION II :

HAZARDOUS INGREDIENTS	%	TLV, (IN PPM)

SEE NOTE

NOTE: THIS PRODUCT CONTAINS NO HAZARDOUS COMPONENTS AS DEFINED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (29 CFR SECTION 1910.1200).

THIS PRODUCT IS NOT A CARCINOGEN OR POTENTIAL CARCINOGEN AS DEFINED BY OSHA, THE NTP, OR THE IARC MONOGRAPHS.

****

SECTION III : PHYSICAL DATA

BOILING POINT : 210 DEGREES FAHRENHEIT
VAPOR PRESSURE : UNKNOWN
VAPOR DENSITY, (AIR=1) : UNKNOWN
SOLUBILITY IN WATER : COMPLETE
SPECIFIC GRAVITY, (H2O=1) : 1.008
PERCENT VOLATILE BY VOLUME : GREATER THAN 90%
EVAPORATION RATE, (WATER=1) : < 1
P H : 7.0
APPEARANCE AND ODOR : CLEAR, VISCOUS LIGHT-BLUE LIQUID.

****

SECTION IV : FIRE AND EXPLOSION DATA

FLASH POINT, (METHOD USED) : NO FLASH @ BOIL. (C.C.)
FLAMMABLE LIMITS : NOT APPLICABLE
EXTINGUISHING MEDIA : 1) DRY CHEMICAL; 2) FOAM; 3) CO2
SPECIAL FIREFIGHTING PROCEDURES : NONE
UNUSUAL FIRE AND EXPLOSION HAZARDS : NONE

****

SECTION V : HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE : HAS NOT BEEN DETERMINED
EFFECTS OF OVEREXPOSURE: DIRECT EYE CONTACT WILL RESULT IN IRRITATION. POSSIBLE SKIN IRRITANT WITH PROLONGED USE.
EMERGENCY FIRST AID PROCEDURES :
SKIN: FLUSH WITH WATER.
EYES: FLUSH WITH WATER, IF IRRITATION PERSISTS, CALL PHYSICIAN.
INGESTION: DRINK LARGE VOLUMES OF MILK OR OTHER LIQUID, CALL PHYSICIAN IMMEDIATELY.

****

SECTION VI : REACTIVITY DATA

STABILITY DATA : STABLE
INCOMPATIBILITY : NONE
HAZARDOUS DECOMPOSITION PRODUCTS : NONE
HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

****

SECTION VII : SPILL OR LEAK PROCEDURES

SMALL SPILLS : WIPE UP PRODUCT, RINSE SOILED AREA WITH WATER DOWN THE DRAIN.
LARGE SPILLS : STOP LEAK AT THE SOURCE AND COLLECT INTO A SUITABLE CONTAINER, THEN TREAT AS A SMALL SPILL.

FOLLOW STATE AND LOCAL REGULATIONS FOR DISPOSAL OF LARGE NON-RECLAIMABLE SPILLS.

****

SECTION VIII : SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION : NONE REQUIRED
VENTILATION : MECHANICAL, (GENERAL)
PROTECTIVE GLOVES : FOR PROLONGED USE
EYE PROTECTION : SAFETY GLASSES
OTHER PROTECTIVE EQUIPMENT : NONE REQUIRED

****

SECTION IX : SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE :
ALWAYS STORE UNUSED PORTION IN ORIGINAL CONTAINER WITH CAP SECURE.
AVOID TEMPERATURE EXTREMES.

OTHER PRECAUTIONS :
AS WITH ALL CHEMICALS, USE WITH DUE CARE ACCORDING TO LABEL INSTRUCTIONS AND PRECAUTIONS

holox

G 1

Holox, Lt.
1500 Indian Trail Road
Norcross, Georgia 30093
(770) 925-4640

MATERIAL SAFETY DATA SHEET

OXYGEN

Rev. Date 10/02/95

Telephone Number: (770) 925-4640
Emergency Contact: CHEMTREC
Emergency Phone Number: (800) 424-9300

SECTION #1 - IDENTIFICATION

Product: OXYGEN

CAS Number: 7782-44-7
Product Code: MSDS CODE G-1
Chemical Family: Oxidizer
Chemical Formula: O2

Synonyms: G-1

NFPA Hazard Rating: - Health: 3 High
- Fire: 0 Negligible
- Reactivity: 0 Negligible
- Special: Oxy

SECTION #2 - CHEMICAL COMPONENTS

Component: OXYGEN
CAS Number: 7782-44-7
Percent of Mixture: 99.6000 to 100.0000

SECTION #3 - PHYSICAL DATA

Boiling Point: - 297.3°F - 182.9°C
Melting Point: - 361.8°F - 218.8°C
Vapor Pressure: Above critical temp.
Specific Gravity: 1.11 (gas, air = 1.0)
Solubility (H2O): Slightly soluble

APPEARANCE

Colorless gas.

ODOR

Odorless.

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA

Flash Point: N/A
Lower Explosive Limit (%): N/A
Upper Explosive Limit (%): N/A

FIRE AND EXPLOSION HAZARDS

Electrical Classification: Nonhazardous.
Vigorously accelerates combustion.

EXTINGUISHING MEDIA

Copious quantities of water (or suitable extinguishing agent for the combustible material) for fires with oxygen as the oxidizer.

SPECIAL FIRE FIGHTING INSTRUCTIONS

If possible, stop the flow of oxygen which is supporting the fire.

SECTION #5 - EXPOSURE AND EFFECTS - INHALATION

ROUTES OF EXPOSURE - INHALATION

High concentrations (greater than 75%) causes symptoms of hyperoxia which included cramps, nausea, dizziness, hypothermia, amblyopia, respiration difficulties, bradycardia, fainting spells and convulsions capable of leading to death. The property is that of hyperoxia which leads to pneumonia. Concentrations between 25 and 75 percent present a risk of inflammation of organic matter in body.

FIRST AID - INHALATION

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO OXYGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Victims should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moded to an uncontaminated area, and if breathing has stopped, administer artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive. The physician should be informed that the victim could be experiencing hyperoxia.

SECTION #5 - EXPOSURE AND EFFECTS - SKIN

ROUTES OF EXPOSURE - SKIN

Contact with liquid product may cause tissue freezing.

FIRST AID - SKIN

For dermal contact or frostbite: Remove contaminated clothing and flush affected areas with lukewarm water, DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

SECTION #5 - EXPOSURE AND EFFECTS - EYES

ROUTES OF EXPOSURE - EYES

Contact with liquid product may cause tissue freezing.

FIRST AID - EYES

Never introduce ointment or oil into the eyes without medical advice! In case of freezing or cryogenic "burns" caused by rapidly evaporating liquid, DO NOT WASH THE EYES WITH HOT OR EVEN TEPID WATER! Remove victim from the source of contamination. Open eyelids wide to allow liquid to evaporate. If pain is present, refer the victim to an ophthalmologist for treatment and follow up. If the victim cannot tolerate light, protect the eyes with a light bandage.

SECTION #5 - MISCELLANEOUS TOXICOLOGICAL INFORMATION

Carcinogenicity — NTP: No IARC: No OSHA: No

SECTION #6 - REACTIVITY & POLYMERIZATION

Stability: Unstable

CONDITIONS TO AVOID (STABILITY)

Contact with all flammable materials.

INCOMPATIBLE MATERIALS

All flammable materials.

Hazardous Polymerization: Will Not Occur.

holox, Ltd.

AUTHORIZED AIRCO DISTRIBUTC

Material Safety Data Sheet

ACETYLENE

Page: 1
Rev. Date 05/09/89

Airco, Division of The BOC Group, Inc.
575 Mountain Avenue
Murray Hill, NJ 07974

Telephone: (201)464-8100

Emergency Contact: CHEMTREC
Emergency Phone Number: (800)424-9300

SECTION #1 - IDENTIFICATION

Product: ACETYLENE

CAS Number: 74-86-2
Product Code: MSDS CODE G-2
Chemical Family: Alkyne
Chemical Formula: C2H2

Synonyms: ETHENE
G-2

NFPA Hazard Rating - Health: 1 Slight
- Fire: 4 Extreme
- Reactivity: 3 High

SECTION #2 - CHEMICAL COMPONENTS

Component: ACETYLENE
CAS Number: 74-86-2 Percent of Mixture: 100.0000
ACGIH TLV-TWA: D, simple asphyxiant

SECTION #3 - PHYSICAL DATA

Boiling Point: -118.8°F -83.8°C
Melting Point: - 113°F -80.6°C
Vapor Pressure: 645 psia
Specific Gravity: 0.906
Solubility (H2O): Soluble

Appearance

A colorless gas.

Odor

Pure acetylene has an etheral odor. Commercial (carbide) acetylene has a distinctive garlic-like odor.

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA

Flash Point: Gas
Autoignition: 565°F 296°C

Lower Explosive Limit (%): 2.2
Upper Explosive Limit (%): 80 - 85*

Fire and Explosion Hazards

*Pure acetylene can ignite by decomposition above 15 psi; therefore, the UEL is 100% if the ignition source is of sufficient intensity.

Electrical Classification: Class 1, Group A.

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA Continued...

GASEOUS ACETYLENE IS SPONTANEOUSLY COMBUSTIBLE IN AIR AT PRESSURES ABOVE 15 PSI (207 kPa.). It requires a very low ignition energy so that fires which have been extinguished without stopping the flow of gas can easily reignite with possible explosive force. Acetylene has a density very similar to that of air so when leaking it does not readily dissipate.

Extinguishing Media

Carbon dioxide, dry chemical.

Special Fire Fighting Instructions

If possible, stop the flow of gas supply and allow fuel to consume itself. Use water spray to cool adjacent areas. Keep personnel away since heated or burning cylinders can rupture violently.

SECTION #5 - EXPOSURE and EFFECTS - INHALATION

Routes of Exposure - Inhalation

Acetylene is a simple asphyxiant. Oxygen levels should be maintained at greater than 18 molar percent at normal atmospheric pressure which is equivalent to a partial pressure of 135 mm Hg. High concentrations of acetylene so as to exclude an adequate supply of oxygen to the lungs causes dizziness, deeper breathing due to air hunger, possible nausea and eventual unconsciousness.

Acetylene is relatively inactive biologically and essentially nontoxic; therefore, the major hazard is the exclusion of an adequate supply of oxygen to the lungs. Low concentrations (10-20% in air) cause symptoms similar to that of being intoxicated. As a narcotic gas or intoxicant, it causes hypercapnia (an excessive amount of carbon dioxide in the blood). Repeated exposures to tolerable levels has not shown deleterious effects.

Exposure to the acetone component is unlikely unless cylinder is leaking on its side. Acetone is primarily a central nervous system toxin causing headache, nausea, dizziness, vomiting and fatigue.

First Aid - Inhalation

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Victims should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. If breathing has stopped administer artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive. Keep victim warm and quiet.

SECTION #5 - EXPOSURE and EFFECTS - SKIN

Routes of Exposure - Skin

Skin effects are not likely. Contact with liquid acetone may cause irritation and dermatitis upon repeated exposures.

First Aid - Skin

Wash affected areas with soap and warm water. If irritation persists, seek medical attention.

SECTION #5 - MISCELLANEOUS TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No IARC: No OSHA: No

SECTION #6 - REACTIVITY & POLYMERIZATION

Stability: Unstable

Conditions to Avoid (Stability)

Do not allow free gas (outside of cylinder) to exceed 15 psi. Do not expose cylinders to sudden shock or heat.

Incompatible Materials

Oxygen and other oxidizers including all halogens and halogen compounds. Forms explosive acetylide compounds with copper, mercury, silver, brasses containing >66% copper and brazing materials containing silver or copper.

Hazardous Decomposition Products

Carbon monoxide and hydrogen.

Hazardous Polymerization: Will not occur.

SECTION #7 - SPILL, LEAK, & DISPOSAL PROCEDURES

Steps to be Taken in The Event of Spills, Leaks, or Release

Evacuate all personnel from affected areas. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, contact CHEMTREC for emergency assistance or call your closest Airco location.

Waste Disposal Methods

Do not attempt to dispose of waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Airco for proper disposal.

SARA Hazard Classes: Acute Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard

SECTION #8 - SPECIAL PROTECTIVE MEASURES

Ventilation

Hood with forced ventilation. Local exhaust to prevent accumulation above the exposure limit. Mechanical in accordance with electrical codes.

Eye Protection

Safety goggles or glasses.

Skin Protection

PVC or rubber in laboratory; as required for cutting and welding.

espiratory Protection

Positive pressure air line with mask or self-contained breathing apparatus should be available for emergency use.

Other Protection

Safety shower

SECTION #9 - SPECIAL PRECAUTIONS - STORAGE & HANDLING

Storage & Handling Conditions

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve protection outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when removing gas from the cylinder. DO NOT ALLOW THE FREE GAS TO EXCEED 15 PSI (207 kPa) @ 70°F (21.1°C). Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 130°F. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "NO SMOKING OR OPEN FLAMES" signs in the storage area or use area. There should be no sources of ignition in the storage or use area.

SECTION #10 - SHIPPING INFORMATION

Proper Shipping Name: Acetylene

Hazard Class: Flammable Gas
DOT Identification Number: UN1001
DOT Shipping Label: Flammable Gas

SECTION #11 - MISC COMMENTS & REFERENCE DOCUMENTATION

Earth-ground and bond all lines and equipment associated with the acetylene system. Electrical equipment should be non sparking or explosion-proof.

Compressed gas cylinders should not be refilled except by qualified producers of compressed gases. Shipments of a compressed gas cylinder, which has not been filled by the owner or with his (written) consent, is a violation of Federal Law (49CFR).

For additional recommendations, consult Compressed Gas Association Pamphlets P-1, G-1. NFPA #51-1984. OSHA 1910-subpart H & Q.

Since acetylene will explode or combust if its pressure exceeds 15 psi (207 kPa), it is shipped dissolved in acetone or dimethylformamide, which is dispersed in a porous mass within the cylinder. Follow AIRCO's instructions for the maximum withdrawal rate for each size cylinder so that the solvent is not withdrawn with the acetylene.

Most metals except silver, copper, mercury, or brasses with more than 66% copper are compatible (noncorrosive) with acetylene.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

RESPIRATORY PROTECTION PROGRAM

RESPIRATOR PROGRAM

Policy and Procedures:

Respirators are to be provided for either employee comfort or for protection against potentially excessive concentrations of airborne contaminants (e.g., asbestos, silica dust, solvent vapors).

An initial medical examination is given to each employee who is required to use a respirator for 30 or more days in a calendar year. Employees who choose to use respirators for personal comfort are not eligible for respirator related medical examinations. Each Regional or Shop Manager will request the Medical Department to establish approved medical examiners for respirator examinations. Respirator examination forms will be provided to the Managers by the Medical Director.

Employees with beards or other facial hair, which comes between the respirator facepiece sealing area and the users face, are not to be issued respirators. Employees are required to be clean shaven in order to perform jobs which require the use of respirators or to participate in respirator training. Those who refuse to shave should be told that their job requires that they wear a respirator and that they will be insubordinate if they should refuse to do so.

The process of fitting a clean shaven employee is as follows: A half mask respirator will be tried first. An employee that cannot achieve a satisfactory fit will be allowed to try another make, model and size of half mask. The next step will be to attempt a fit by trying a full face respirator. If a satisfactory fit cannot be attained by any of the previous trials, then the employee will be medically disqualified from working in areas that require respirator use.

When a determination has been made as to the type of respiratory protection to be worn based on the SOP and the employee is physically able to wear the equipment, fit-testing is conducted to ensure a proper fit.

To perform the fit-test, the employee wears the respirator specified by the SOP, in the size that fits the employee's face comfortably. The employee is briefly exposed to a test atmosphere containing one of the following to test the fit of the respirator:

1. Irritant Smoke (asbestos or lead only).

The respirator user should be instructed to adjust the respirator facepiece and straps to achieve a comfortable fit. Then he or she should perform a negative or positive pressure test as outlined in the instructions which accompany the respirator. If the user does not achieve a satisfactory seal, then the respirator should be removed and refit. If a satisfactory seal cannot be achieved then a different size facepiece or respirator should be tried.

To conduct the irritant smoke test, the irritant smoke tube (to be obtained from the System Medical Department) should be opened and the smoke ejection bulb attached. Squeezing the bulb will release the irritant smoke.

Once the respirator has been adjusted to achieve a proper fit then the user is instructed to close his or her eyes and breathe normally. A slight amount of smoke should be generated around the filter and periphery of the facepiece. Caution - do not get the end of the tube closer than two inches from the facepiece, canister, or eyes at any time. If the respirator user detects respiratory irritation, then an acceptable fit has not been achieved. If no leakage (irritation) is discovered with normal breathing, then a denser smoke should be generated while the user breathes slowly and deeply. This part of the test should be done quickly to prevent the user from hyperventilating. If no leakage is detected, smoke should be generated while the user turns his or her head from side to side and up and down. Detection of irritation is an indicator of leakage and unacceptable fit. Completion of the aforementioned procedure without respiratory irritation implies a satisfactory respirator fit.

Table 1. --- Respiratory Protection for Asbestos Fibers

AIRBORNE CONCENTRATION OF ASBESTOS OR CONDITIONS OF USE RESPIRATOR	REQUIRED
Not in excess of 1 f/cc (10 X PEL), or otherwise as required independent of exposure pursuant to (h) (2) (iv) of this section.	Half-mask air purifying respirator other than disposable respirator, equipped with high efficiency filters.
Not in excess of 5 f/cc (50 X PEL).	Full facepiece air purifying equipped with high efficiency filters.
Not in excess of 10 f/cc (100 X PEL).	Any powered air purifying equipped with high efficiency filters or any supplied air respirator operated in continuous flow mode.
Not in excess of 10 f/cc (1000 X PEL).	Full facepiece supplied air respirator operated in pressure demand mode.
Greater than 100 f/cc (1,000 X PEL). unknown concentration.	Full facepiece supplied air respirator operated in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus.

NOTE:

a. Respirators assigned for high environmental concentrations may be used at lower concentrations, or when required respirator use is independent of concentration.

b. A high efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers in diameter or larger.

The size and type of respiratory protection an employee has been fit-tested on is noted on the Qualitative Fit-Test form. Each employee's fit-test record is kept in his or her personnel file.

The fit-test is repeated each time the user received a different type of respirator, facepiece, or if the wearer undergoes significant changes in facial features, dental configuration or body weight. It is automatically done every 6 months.

RESPIRATOR SELECTION

The SOP for Respirator Use is evaluated by the work activity performed, jobsite, description of operation requiring respirator use, materials being used in the operation, classification of exposure as continuous, and job classifications required to wear the respirator during the operation.

Employees performing the work activities participate in the following activities before respiratory protection is issued to them:

1. Medical Evaluation,
2. Fit-Testing, and
3. Respirator Training.

After these activities have been completed, the respirator and corresponding air-purifying elements (cartridges, filters) are issued to the employee in accordance with the SOP.

HALF MASK RESPIRATORS

For application in atmosphere with dusts, mists, fumes, gases, and vapors (dependent on cartridge selection). Acceptable for contaminant concentrations in air up to 10 times the TLV.

FULL FACEPIECE RESPIRATORS

For application in atmospheres with dusts, mists, fumes, gases, or vapors (dependent on cartridge selection). Acceptable for contaminant concentrations in air up to 50 times the TLV.

Employees who must wear corrective eyeglasses and whose work requires them to wear a full facepiece respirator should be provided special frames and lenses. Spectacle kits and frame assemblies are to be purchased through Purchasing and Materials. Corrective lenses are to be purchased through normal channels for procuring prescription safety glasses. The most recent eyeglass prescription, from which the employee has received safety glasses, is to be referred to requesting lenses.

29 CFR 1926. (H)(4) Respirator Fit Testing

Respirators issued to employees must exhibit minimum facepiece leakage and fit the employee properly. Employers must perform either quantitative or qualitative (for half-mask respirators only) face fit tests at the time of initial fitting and at least every 6 months for each employee wearing a negative-pressure respirator. If the employee shows signs of breathing difficulty during the fit test or during use, the employer must make available an examination in accordance with the medical surveillance requirements of the standard.

Debbie and Jimmy Livingston are the employers of Aztec Environmental, Inc.

Respirator Program

for

AZTEC ENVIRONMENTAL, INC.

(name of business)

2060 North Sherman Avenue

(address)

Panama City	Florida	32405
(city)	(state)	(ZIP code)

Debbie K. Livingston	President	850-747-0078
(print name of preparer)	(title)	(phone number)

Prepared by: Debbie K. Livingston

(signature)

Date: 7/29/98

Purpose

The purpose of this operating procedure is to ensure the protection of all employees from respiratory hazards, through proper use of respirators. Respirators are to be used only where engineering control of respirator hazards is not feasible, or while engineering controls are being installed, or in emergencies.

Responsibility

Debbie K. Livingston, President

(name or title)

is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of this program. This authority includes hiring personnel and purchasing the equipment necessary to implement and operate the program.

Debbie K. Livingston, President

(name or title)

will develop written detailed instructions covering each of the basic elements in this program, and will amend these instructions when necessary.

Aztec Environmental, Inc.

(name of company)

has expressly authorized

Supervisor on the Job Site

(name or title)

to halt any operation of the company where there is danger of serious personal injury. This authority includes halting operations because of respiratory hazards.

Program Elements

1. Developing a Written Program

Debbie K. Livingston, President
(name or title)

will develop detailed written standard operating procedures governing the selection and use of respirators using the NIOSH Respirator Decision Logic as a guideline. Outside consultation, manufacturers' assistance, and other recognized authorities will be consulted if there is any doubt regarding proper selection and use. These detailed procedures will be included as appendices to this respirator program. Only

Debbie K. Livingston, President
(name or title)

may amend these procedures.

2. Selection of Respirator

Respirators will be selected on the basis of hazards to which the worker is exposed. All selections will be made by:

Supervisor on the Job Site
(name or title)

Only MSHA/NIOSH-certified respirators will be selected and used.

3. Training

Users will be instructed and trained in the proper use of respirators and their limitations. Both supervisors and workers will be instructed by:

Jimmy Livingston, Vice-President
(name or title)

Training should provide the employee with the opportunity to:

- handle the respirator
- have it fitted properly
- test its face-piece for face-seal
- wear it in normal air for a long familiarity period
- wear it in a test atmosphere.

Every respirator wearer will receive fitting instructions. These instructions will include a demonstration of the respirator's use, practice in how the respirator should be worn, practice in adjusting the respirator, and instruction in how to determine if it fits properly.

Respirators should not be worn when conditions prevent a good face-seal. Such conditions may include a growth of beard, sideburns, a skull cap that projects under the face-piece, or temple pieces on glasses. Also, the absence of one or both dentures can seriously affect the fit of a face-piece. Employees of:

Aztec Environmental, Inc.

(name of company)

who are required to wear respirators may not wear beards.

The workers' diligence in observing these requirements will be evaluated by periodic checks. To ensure proper protection, the face-piece will be checked by the wearer each time the wearer puts on the respirator. This will be done by following the manufacturer's face-piece fitting instructions.

4. Assigning Respirators

Where practicable, respirators will be assigned to individual workers for their exclusive use.

5. Cleaning and Disinfecting Respirators

Respirators will be regularly cleaned and disinfected. Those issued for the exclusive use of one worker will be cleaned after each day's use or more often if necessary. Those used by more than one worker will be thoroughly cleaned and disinfected after each use.

Supervisor on the Job Site

_____

(name or title)

will establish a cleaning and maintenance facility and develop detailed written cleaning instructions.

6. Storage of Respirators

There is a central respirator cleaning and maintenance facility. Respirators will be stored in a clean and sanitary location.

7. Inspection of Respirators

Respirators used routinely will be inspected during cleaning. Worn or deteriorated parts will be replaced. Respirators available for emergency use, such as self-contained devices, will be thoroughly inspected at least once a month and after each use. Inspection for SCBA (Self-Contained Breathing Apparatus) breathing gas pressure will be performed weekly.

8. Surveillance

Appropriate surveillance of work area conditions, including the degree of employee exposure or stress, will be maintained.

9. Evaluation

There will be regular inspections and evaluations to determine the continued effectiveness of the program.

Supervisor on the Job Site

_____

(name or title)

will make frequent inspections of all areas where respirators are used to ensure compliance with the respiratory protection program.

10. Physical Ability of Employee

An employee will not be assigned to a task requiring the use of a respirator unless it has been determined that the employee is physically able to perform the work while using the equipment. The

Aztec Environmental, Inc.

(name of company)

physician will determine what health and physical conditions are pertinent. Each respirator user's medical status will be reviewed annually.

11. Certified Respirators

Only certified respirators will be used.

Respirator Program Evaluation Checklist

In general, the respirator program should be evaluated for each job at least annually. Program adjustments (as appropriate) should be made to reflect the evaluation results.

The evaluation of program functions are separated into the administration and operation aspects of the program.

A. Program Administration

_____ Is there a written policy that acknowledges employer responsibility for providing a safe and healthful workplace?

_____ Is there a written program that assigns program responsibility, accountability, and authority?

_____ Is program responsibility vested in one individual?

_____ Is the program administrator knowledgeable about respirators and the program?

_____ Can the administrator coordinate all aspects of the program at the job site?

_____ Can realistic engineering controls or work practices eliminate the need for respirators?

_____ Are there written procedures/statements covering the various aspects of the respirator program, including:

- ❑ Designation of an administrator
- ❑ Respirator selection (including purchase of MSHA/NIOSH certified equipment)
- ❑ The medical aspects of respirator use
- ❑ The issuance of equipment, fitting, training

- ❑ The maintenance, storage, and repair of respirators
- ❑ Inspection and use under special conditions
- ❑ Work area surveillance

B. Program Operation

Respiratory Protective Equipment Selection

_____ Are work area conditions and worker exposures properly surveyed?

_____ Are respirators selected on the basis of the actual hazards to which the worker is exposed?

_____ Are only certified respirators purchased and used?

_____ Do the respirators provide adequate protection for the specific hazard?

_____ Are the respirators effective for the concentration levels of the contaminant?

_____ Have the prospective users been medically evaluated?

_____ Did the medical evaluation of each user include the user's physical and psychological ability to wear the selected respiratory protective equipment?

_____ Have respirators been issued to the users for their exclusive use?

_____ Are there records covering issuance of respirators?

Respiratory Protective Equipment Fitting

_____ Is each user given the opportunity to try on several respirators to determine whether the respirator he or she will be wearing is the best fitting one?

_____ Is the fit of the respirator tested at appropriate intervals?

_____ Are those users who require corrective lenses properly fitted?

_____ Is the face-piece-to-face seal tested in a test atmosphere?

_____ Are workers prohibited from wearing respirators in contaminated work areas if they have facial hair or other characteristics that may cause face-seal leakage?

Respirator Use in the Work Area

_____ Are respirators being worn correctly?

_____ Are workers keeping respirators on all the time while in the work area?

Cleaning and Disinfecting

_____ Are respirators cleaned and disinfected after each use when several people use the same device?

_____ Are respirators issued to individual users cleaned as frequently as necessary?

_____ Are proper cleaning and disinfecting methods utilized?

Storage

_____ Are respirators stored in a manner that protects them from:

- ❑ dust
- ❑ sunlight
- ❑ heat
- ❑ excessive cold
- ❑ moisture
- ❑ damaging chemicals

_____ Are respirators stored in a storage facility in a way to prevent them from becoming deformed?

_____ Is storage in lockers or tool boxes permitted only if the respirator is in its own carrying case or carton?

Inspection

_____ Are respirator inspected before and after each use?

_____ Are respirators inspected during cleaning?

_____ Are qualified individuals instructed in inspection techniques?

_____ Is respiratory protective equipment designated for emergency use inspected at least once a month?

_____ Are SCBA breathing gas containers inspected weekly for breathing gas pressure?

_____ Is a record kept of the inspection of emergency use respiratory protective equipment?

Repair

_____ Are the replacement parts used to repair respirators made by the manufacturer of the respirator?

_____ Are repairs made by that manufacturer or by manufacturer-trained technicians?

Special Use Conditions

_____ Is there a procedure for using respiratory protective equipment in atmospheres that are immediately dangerous to life or health?

_____ Is a procedure available for using equipment to enter into confined spaces?

Training

_____ Are users trained in proper respirator use, cleaning, and inspection?

_____ Are users trained in the basis for selecting respirators?

_____ Is a competency-based evaluation of users made before and after training?

Respirator Inspection Record

1. Type

_____

2. No.

_____

3. Defects Found:

_____ Face-piece

_____ Inhalation Valve

_____ Exhalation Valve Assembly

_____ Headbands

_____ Cartridge Holder

_____ Cartridge Canister

_____ Filter

_____ Harness Assembly

_____ Hose Assembly

_____ Speaking Diaphragm

_____ Gaskets

_____ Connections

_____ Other Defects

LADDER SAFETY PROGRAM

I. INTRODUCTION

Accidents that involve the misuse of ladders result in a great number of severe injuries. Employees using ladders are exposed to a significant risk of harm; therefore, we have developed and implemented a Ladder Safety Program.

II. FALL PROTECTION REQUIREMENTS WHEN USING LADDERS

Fall protection is not required when using ladders. The only exception is when an employee is using an extension ladder and is not able to maintain a three point contact (both feet and one hand, or both hands and one foot constantly in contact with the ladder). In this situation employees use a personal fall arrest system.

III. RESPONSIBILITIES

A. Supervisors

1. Conduct ladder safety toolbox training at the jobsite on an annual basis.
2. Train new employees on the Ladder Safety Program.
3. Provide employees with the correct ladders for their jobs.

B. Employees

1. Utilize the correct ladder provided for the job.
2. Inspect ladders to make sure there are no structural defects.
3. Tag all ladders that have structural defects with a "DO NOT USE" tag and notify the supervisor.
4. Immediately notify the supervisor if the correct ladder is not available for the job (the ladder is not altered in any way).

IV. GENERAL REQUIREMENTS

A. Access

1. Where there is a break in elevation of 19" or more, without a ramp, runway, or slope embankment, employees are provided with a ladder or stairway.

2. When the jobsite has only one point of access between levels, the point of access is kept clear.

B. Loads

1. Only ladders that meet or exceed OSHA requirements and that are capable of supporting the following loads without failure are used:

   a. Self-supporting portable ladders support at least four times their maximum intended load, except the extra-heavy-duty type 1A metal or plastic ladders which support at least 3.3 times their maximum intended load.

   b. Portable ladders that are not self-supporting support at least four times their maximum intended load, except the extra-heavy-duty type 1A metal or plastic ladders which support at least 3.3 times their maximum intended load.

2. Ladders are not loaded beyond their maximum intended load, nor beyond the manufacturer's rated capacity.

C. Ladder Structure

1. A metal spreader or locking device is provided on each step ladder to hold the front and back sections in an open position when the ladder is being used.

2. Wood ladders are not coated with any opaque covering, except for the identification and warning labels.

3. Ladders have nonconductive side rails if they are used where the employee or the ladder could come in contact with exposed energized electrical equipment.

4. Portable ladders with structural defects are tagged "DO NOT USE" and immediately removed from service.

5. Single-rail ladders are not used.

6. Ladder rungs, cleats, and steps are parallel, level, and uniformly spaced when the ladder is in position for use.

D. Ladder Use

1. Employees always use a three point contact when using an extension ladder. This means that both feet and one hand or both hands and one foot are always in contact with the ladder.

2. Employees make every effort to use extension ladders for access only. Other types of devices (man-lifts, platforms, scaffolds, etc.) are used to perform work.

3. Ladders are used only for the purpose they were designed for.

4. Cross-bracing on the rear section of step ladders is not used for climbing.

5. The top of the step ladder is not used to stand on.

6. When ascending or descending a ladder, employees face the ladder.

7. Employees do not carry any object or load that would cause them to lose balance and fall.

8. Ladders are not tied or fastened together to provide longer sections unless they are specifically designed for such use.

E. Ladder Placement

1. Ladders are only placed on stable and level surfaces unless secured.

2. Ladders are not placed on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement. Slip-resistant feet are not used as a substitute for care in placing lashing, or holding a ladder that is placed upon slippery surfaces.

3. The bottom of a ladder is placed so that the distance from the wall is equal to 1/4 the vertical height of the ladder.

4. Ladders placed in any location where they may be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways, are secured to prevent accidental displacement, or a barricade is used to keep the activities or traffic away from the ladder.

5. All extension ladders are tied-off and secured.

F. Ladder Maintenance

1. Ladders are kept free from oil, grease, and other slipping hazards.

2. Employees inspect ladders for visible defects on a periodic basis and after any occurrence that could affect their safe use.

3. The areas around the top and bottom of ladders are kept clear at all times.

4. Ladders are surfaced to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

V. TRAINING REQUIREMENTS

A. The training program enables employees to recognize hazards related to ladders. Toolbox training is conducted annually by the field supervisor at the jobsite and includes the following:

1. The nature of fall hazards in the work area.

2. The proper construction, use, placement, and care in handling ladders.

3. Activities <u>not</u> permitted with ladders.

4. The maximum intended load-carrying capacities of ladders.

5. How to identify maximum intended load capacities.

B. Training is documented and kept on file.

CONFINED SPACE PROGRAM

I. PURPOSE

To provide our employees means for identifying, eliminating, and recognizing the adverse health effects of the hazardous conditions that may exist in a confined space.

II. DEFINITIONS

A. Confined Space

For a space to be considered confined, it meets all three following criteria:

1. It is large enough and so configured that an employee can bodily enter and perform assigned work.

2. It has limited or restricted means for entry or exit.

3. It is not designed for continuous employee occupancy.

This includes airhandlers, chillers, condensate tanks, boilers, pipe chases, cooling towers, etc.

B. Non-Permit Required Confined Space

A non-permit required confined space is a space that does not have:

1. A hazardous atmosphere.

2. The potential to contain a hazardous atmosphere.

3. The potential to contain any hazard capable of causing death or serious physical harm.

This includes chillers that have their energy sources physically locked out prior to entry, and airhandlers that do not manage air from a potential hazardous atmosphere, and have their energy sources locked out.

C. Permit Required Confined Space

Permit required confined spaces are broken down into two types:

1. A permit required Type I confined space contains or has the potential to contain a hazardous atmosphere.

This includes airhandlers that manage air from a hospital (patient rooms), chemical or school laboratories, boilers, and underground pipe chases.

2. A permit required Type II confined space is a space that in addition to containing or having the potential to contain a hazardous atmosphere, also has any of the following:

   a. The potential for a material or substance to engulf the entrant.

   b. An internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls.

   c. A floor which slopes downward or tapers to a smaller cross-section.

   d. A hazardous atmosphere made up of hazardous materials that the customer cannot identify.

   e. Hazardous conditions that require the employee to enter the space to eliminate the hazards or potential hazards.

   f. Any other recognized serious safety or health hazards.

III. TYPES OF CONFINED SPACES

A. Non-Permit Required Confined Space

Non-permit confined spaces do not and cannot contain a hazardous atmosphere.

1. Responsibilities.

   a. Customer.

      1. The customer classifies the space as a non-permit confined space and communicates this information during the bidding process.

      2. All building owners post danger signs by or on their confined spaces.

b. Confined space Program Coordinator.

The Program Coordinator works with the Project Managers and supervisors to ensure that all employees are instructed on the proper techniques, and have the proper equipment needed to work in a non-permit confined space.

c. Supervisors.

Supervisors ensure that employees are properly trained and have the appropriate equipment needed to work in a non-permit confined space.

d. Employees.

1. Immediately notify their supervisor when the customer does not have a confined space program, or has not identified their confined spaces within their building.

2. Contact their supervisor with any questions prior to working in a confined space.

3. Notify the customer when they experience a situation with a confined space that may change the classification of that space.

4. Lock out all mechanical equipment that could pose harm when accidentally energized. For example, a motor for a fan in an airhandler.

2. Equipment needed.

a. Personal protective equipment includes safety glasses, a hard hat, goggles, a faceshield, safety shoes, hearing protection, etc.

b. Lock out equipment includes locks, hasps, ball valve lock outs, blockout breakers, plug locks, valve covers, etc.

3. Steps prior to entry.

a. All personal protective equipment that is required by either the general contractor or customer is identified and obtained. This includes safety glasses, a faceshield, goggles, a hard hat, safety shoes, hearing protection, etc.

b. Any potential hazards that may be encountered when working in a confined space are identified, and the steps necessary to eliminate or reduce the hazards are taken. For example, it may be necessary to lock out a motor for a fan that is in the airhandler that if started, could pose a health risk by either creating an atmosphere that is too turbulent to work in, or by the fan pulling in toxins.

c. When working on a new construction jobsite it is difficult to determine what equipment has been energized, or what other contractors are going to do that may pose a potential risk for our employees. For example, an employee could be working in an airhandler that is free from any toxic materials, however, contractors could be refinishing the floor in the room next to the airhandler and the fumes could make their way into the airhandler causing a hazardous atmosphere. When employees are not sure of these factors they:

1. Contact the general contractor when questioning what equipment has been energized and needs to be locked out.

2. Identify any jobs that are being conducted near the confined space that could pose a hazard while working in the space.

4. Steps when entering a non-permit required confined space.

a. Personal protective equipment is put on if needed, and the entrance is opened.

b. The entrance opening is barricaded when the potential for others to fall in exists.

c. The confined space is immediately left if any warning signs or symptoms of exposure to a hazardous situation are noticed (refer below to Section V.B.6, Detecting a hazardous atmosphere while working inside the confined space, for specific instructions).

d. The customer is immediately notified of any changes that occur while working in the confined space that might change the classification of the space.

B. Permit Required Type I Confined Space

A permit required Type I confined space has an actual or the potential for having a hazardous atmosphere.

1. Responsibilities.

a. Customer.

1. Explain to the Sales Engineer why the space is considered a permit required Type I confined space, and what specific components make up the present or potential hazardous atmosphere.

2. Request that employees either use the customer's confined space program and be issued the permit by the customer, or that they use our program and permit.

3. Instruct employees on the:

a. Explanation of why the space has a Type I classification, and the hazards associated with the confined space.

b. Precautions or procedures that have to be implemented to protect our employees from potential hazards.

c. Personal protective equipment that is required when working in the space.

d. Coordination of the duties of the entrants when our employees are going to work with the customer's employees inside the Type I confined space.

b. Confined space Program Coordinator.

The Program Coordinator works with the Project Managers to ensure that all employees are instructed on the proper techniques, and have the proper equipment and permits needed to work in a permit required Type I confined space.

c. Employees.

1. Contact their supervisor immediately if problems are encountered with the customer.

2. Are knowledgeable as to why the space is considered a permit required Type I confined space.

3. Identify with the customer the actual hazardous atmosphere or the potential hazardous atmosphere that could exist in the Type I confined space, and the proper air monitoring equipment needed to monitor the atmosphere.

4. Are knowledgeable of the effects the hazardous atmosphere could have on them. For example, employees could become dizzy or feel light headed if the oxygen content was being depleted.

5. Continuously monitor the space for oxygen content, lower explosion limit (LEL), and any other hazardous materials. Some hazardous materials cannot be monitored on a continuous basis, therefore, periodic monitoring is performed.

6. Immediately notify the customer of any changes within the Type I confined space.

7. Notify the customer when the job is completed.

2. Equipment needed.

a. Personal protective equipment includes safety glasses, a hard hat, goggles, a faceshield, safety shoes, hearing protection, etc.

b. Lock out equipment includes locks, hasps, ball valve lock outs, blockout breakers, plug locks, valve covers, etc.

c. Oxygen and LEL monitors and other equipment to detect specific hazardous material(s) as specified by the customer in the job specifications. These instruments are capable of continuously monitoring the atmosphere for oxygen content, LEL, and any other hazardous materials. Some hazardous materials cannot be monitored on a continuous basis, therefore, periodic monitoring is performed.

3. Steps prior to entry.

a. The building owner is contacted for permission to enter their Type I confined space.

b. Instructions are received from the customer on the following:

1. Why the space is considered a Type I confined space.

2. Hazards that are associated with the Type I confined space including the components that make up the actual or potential hazardous atmosphere, and equipment needed to monitor the atmosphere.

3. Precautions or procedures customers have implemented to protect entrants from potential hazards.

4. Experiences from other entrants who have entered and worked in the particular Type I confined space.

5. The duties of our employees when working with the customer inside the confined space.

c. At the customer's direction, a permit is obtained from the customer or the Type I Confined Space Entry Permit shown in Appendix 1.0 is completed.

d. All personal protective equipment that is required by either the customer or general contractor is identified and obtained. This includes safety glasses, a faceshield, goggles, a hard hat, safety shoes, hearing protection, etc.

e. Any potential hazards that may be encountered when working in the Type I confined space are identified, and the steps necessary to eliminate or reduce the hazards are taken. For example, it may be necessary to lock out a motor for a fan that is in the airhandler, that if started, could pose a health risk.

f. Conditions outside the space that could alter or change the atmosphere inside the Type I confined space are identified.

g. When working on a new construction/retrofit jobsite:

1. The general contractor is contacted when questioning what equipment has been energized and needs to be locked out.

2. Any jobs that are being conducted near the space that could alter the atmosphere inside the space are identified.

4. Detecting a hazardous atmosphere prior to entry.

When an employee detects a hazardous atmosphere prior to entry they:

a. Contact the customer and determine why the space contains a hazardous atmosphere.

b. Have the customer identify the hazardous components that make up the hazardous atmosphere.

c. Eliminate the source causing the hazard.

d. Vent the space using continuous forced air ventilation. Employees do not enter the space until the forced air:

1. Eliminates the hazardous atmosphere.

2. Is continuously forcing fresh air directly at the work area where the employee is working during the entire project.

e. Retest for oxygen, LEL, and any other hazardous materials that potentially could be present, to confirm that all hazards are eliminated from the area and the space is safe for human occupancy.

f. Continuously monitor the space for oxygen content, LEL, and any other hazardous materials. Some hazardous materials cannot be monitored on a continuous basis, therefore, periodic monitoring is performed.

5. When entering a confined space employees do the following:

a. Remove all hazards prior to opening the entrance. For example, when working in an airhandler that is managing air for a chemical laboratory, the air that is being drawn up by the fan could pose a serious health hazard. Therefore, prior to entering the airhandler, employees lock out the motor for the fan.

b. Put on personal protective equipment if needed, and open the entrance.

c. Barricade the entrance door when the potential for others to fall in exists.

d. Test the atmosphere's oxygen content, LEL, and any potential hazardous materials that may be present using the following limits:

1. Oxygen must be greater than 19.5%.

2. LEL must be less than 10%.

3. Toxic levels depend on the specific hazardous material(s).

Note: When monitoring a space with separate monitors (for example, separate oxygen, LEL, and carbon monoxide monitors) the following sequence is followed:

a. First the space is monitored for oxygen.

b. Second the space is monitored for LEL.

c. Third the space is monitored for toxic gas(s).

e. Continuously monitor the atmosphere for the oxygen content, LEL, and if necessary, hazardous materials that may be present.

6. Detecting a hazardous atmosphere while working inside the confined space.

When an employee detects a hazardous condition (oxygen deprivation monitor alarms, a locked out piece of equipment starts to energize, etc.) they:

a. Immediately leave the space and contact the customer.

b. Have the customer identify the components that make up the hazardous atmosphere.

c. Determine why the space became hazardous.

d. Identify with the customer ways to eliminate the hazard and prevent the hazard from happening again.

e. Eliminate the hazard and ventilate the space before entering, by continuously forcing fresh air directly at the work area where they are working for the entire length of the project.

f. Retest for oxygen, LEL, and any other hazardous materials that may be present to confirm that all hazards are eliminated from the area, and the space is safe for human occupancy prior to entering.

g. Continuously monitor the atmosphere for the oxygen content, LEL, and hazardous materials.

C. Permit Required Type II Confined Space

Type II confined spaces are those that in addition to having a hazardous atmosphere, have the potential to trap the entrant inside the space.

Type II spaces also include those spaces that require the employee to go inside the space to eliminate an actual or potential hazard.

1. Responsibilities.

   a. Customer.

      Customers identify and notify our Sales Engineer of any Type II confined spaces that employees are required to work in. This notification is made prior to bidding the job and includes:

      1. The actual and potential hazards that exist in the Type II confined space.

      2. The means to eliminate the actual and potential hazards.

      3. The air monitoring equipment required to analyze the air quality.

      4. The personal protective equipment that needs to be worn by employees.

   b. Sales Engineer.

      1. Identify all confined spaces with the customer prior to bidding the job.

      2. Consult with the Project Manager to handle specific requirements such as special equipment, and air monitors that need to be purchased for the job.

   c. Project Managers.

      Project Managers work with the Sales Engineer, customer, and employees who work in the confined space.

   d. Employees.

      1. Authorized attendant.

         When an employee enters a permit required Type II confined space they are considered an authorized entrant. An authorized entrant does the following:

a. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

c. Communicates with the attendant (person outside the space) as needed to verify the status of the conditions inside the space.

d. Alerts the attendant whenever the entrant recognizes any warning signs or symptoms of exposure to a dangerous situation.

e. Exits from the permitted space as quickly as possible whenever:

1. An order to evacuate is given by the attendant or the entry supervisor.

2. The entrant recognizes any warning signs or symptoms of exposure to a dangerous situation.

3. The air monitoring equipment goes into alarm.

2. Attendants.

When an employee enters a permit required Type II confined space there is a person outside the space monitoring the activities of the authorized employee inside the space. The attendant does the following:

a. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

b. Knows the possible behavioral effects on the entrants when exposed to the hazards that may be present.

c. Continuously maintains an accurate count of authorized entrants in the space.

d. Remains outside the space during entry operations until relieved by another attendant.

e. Communicates with the entrants on an as needed basis to verify their status.

f. Monitors activities inside and outside the space to determine if it is safe for the entrants to remain in the space.

g. Immediately orders the entrants to evacuate the space when:

1. Detecting a prohibited condition.

2. Detecting the behavioral effects that may be caused by being exposed to a hazardous atmosphere.

3. Detecting a situation outside the space that could endanger the authorized entrants.

h. Summons rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from the space.

i. Keeps all unauthorized employees from entering the confined space.

j. Performs non-entry rescues as specified by the employers rescue procedure.

3. Entry supervisors.

Permit required Type II confined spaces require that a person take certain responsibilities and oversee the entire confined space entry. This supervisor does the following:

a. Knows the hazards that maybe faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

b. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted, and all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

c. Terminates the entry permit when the entry operations covered by the permit have been completed or when conditions that are not allowed by the permit arise in or near the space.

d. Verifies that rescue services are available and that the means for summoning them are operable.

e. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

4. OSHA requires a special procedure when working in a permit required Type II confined space. This procedure includes the following:

a. Develop a comprehensive confined space pre-entry check list.

b. Develop and issue an extensive entry permit.

c. Have an entry supervisor sign off on the permit and be responsible for the entry.

d. Have an attendant remain outside the space and visually supervise the employee(s) working inside the space.

e. Develop, train, and maintain a rescue and emergency team to respond to an emergency situation that may occur when an employee is trapped, or is having problems when working in a confined space.

IV. TRAINING

It is critical that our employees are aware of the hazards and potential hazards they may encounter when working in a confined space. All employees who work in confined spaces receive training to give them the understanding, knowledge, and skills necessary for the safe performance of their duties assigned when working in a confined space. Employees receive training when:

A. They are first assigned duties that involve working in a confined space.

B. There is a change with their duties when working in a confined space.

C. There is a change in permit space operations that presents a hazard which an employee has not previously been trained on.

D. The employer has reason to believe there are deviations from the permit space entry procedures, or there are inadequacies in an employee's knowledge or use of the procedures.

E. New or revised procedures are introduced, and as necessary for compliance with the Confined Space Program.

All training is documented and kept on file.

SPACE ENTRY PERMIT

Description of Confined Space (CHECK ONE)

___Airhandler ___Condensate Tank
___Condensate Pit ___Cooling Tower
___Pipe Chase ___Boiler
Other _____

Date: _____

Time of Entry: _____

Estimated Completion Time: _____

Jobsite: _____

Address of Jobsite: _____

_____

Customer Contact: _____

ATMOSPHERIC CHECKS PRIOR TO ENTRY

Time of Check: _____
Oxygen: _____ STANDARD = GREATER THAN 19.5%
Explosive: _____ STANDARD = LESS THAN 10.0% LEL
Toxic ppm: _____
If these standards are not met, the space is not entered.

MECHANICAL/ELECTRICAL LOCK OUT

All mechanical and electrical equipment that may pose a hazard when accidentally energized has been locked out.

☐ YES
☐ NO, Explain why _____

MECHANICAL VENTILATION

☐ Natural Ventilation
☐ Mechanical; if mechanical is used, the atmosphere is retested for:

Time: _____
Oxygen: _____ STANDARD = GREATER THAN 19.5%
Explosive: _____ STANDARD = LESS THAN 10.0% LEL
Toxic ppm: _____

SIGNATURE OF ENTRANT

_____ DATE _____ TIME _____

FALL PROTECTION PROGRAM

I. FALL PROTECTION APPLICATION

A. Construction

In construction, fall protection applies to employees who are on a walking or working surface, horizontal or vertical, with an unprotected side or edge which is **6 feet** or more above a lower level.

B. General Industry

In general industry, fall protection applies to employees who are on a walking or working surface, horizontal or vertical, with an unprotected side or edge which is **4 feet** or more above a lower level.

II. EXCEPTIONS TO THE FALL PROTECTION PROGRAM

A. Ladders

1. Step ladders.

Fall protection is not required when working on a step ladder.

2. Extension ladders.

Fall protection is only required when working on an extension ladder and the employee cannot maintain a three point contact (both feet and one hand, or both hands and one foot in contact with the ladder at all times).

B. Scaffolding

Fall protection is not required when working on scaffolding that has guardrails and toeboards installed on all open sides and ends of the platforms.

C. Scissors Lifts

Fall protection is not required when working on a scissors lift that has guardrails on all open sides. Employees who hang over or straddle the guardrail use a personal fall arrest system.

D. Inspections, Investigations, or Assessment of Workplace Conditions

Fall protection does not apply when employees are making an inspection investigation, or assessment of workplace conditions prior to the actual start of construction work or after all construction work has been completed.

III. RESPONSIBILITIES

A. Supervisors

Supervisors have the primary responsibility for seeing that the Fall Protection Program is being utilized in the field. Supervisors perform the following:

1. Ensure that employees have the proper fall protection equipment.

2. Ensure that employees receive periodic training to verify they are using the proper techniques and safety precautions when using fall protection equipment.

B. Employees

Employees are the key to having a good Fall Protection Program. For the program to be successful, employees do the following:

1. Attend and participate in all safety training.

2. Wear the appropriate personal protective equipment when required.

3. Use the appropriate fall protection equipment when required.

4. Inspect and maintain all fall protection equipment.

5. Contact their supervisor when they have question regarding the Fall Protection Program or any other safety issue.

IV. HAZARD IDENTIFICATION

Employees evaluate the area where they perform work that requires them to use a fall arrest system.

Hazards and potential hazards are recognized before an employee uses any type of fall protection. Hazards include poor housekeeping, chemicals, electrical hazards, sharp objects, abrasive surfaces, moving equipment, moving materials, unguarded openings, improper use of tools, wet or slippery surfaces, poor lighting, changes in the weather, force of gravity, etc.

Employees evaluate the area they are going to work in, identify the hazards, and take the proper steps to eliminate or control the hazards. When an employee cannot eliminate or control a hazard they immediately notify their supervisor for assistance.

V. ENGINEERING CONTROLS

Engineering controls eliminate fall hazards and are the first line of defense for fall protection. The three primary controls are guardrails, scaffolds and aerial lifts. Whenever possible scaffolds and aerial platforms are used to eliminate fall hazards.

VI. PERSONAL FALL ARREST SYSTEM

A personal fall arrest system stops the employee in a fall from making contact with a floor or other structural object. This system includes a full body harness, lanyard (with softstop) and an anchorage device.

The following general equipment is used.

A. Full-body harness.

B. Lanyard with softstop shock absorber.

C. Cross-arm strap (specially designed strap wraps around beams to form a secure anchoring point for lanyards).

VII. PLANNING THE USE OF FALL PROTECTION SYSTEMS

A. Anchorage and anchorage connectors selection.

1. The location of the anchorage is determined to assure that the employee is continuously connected when exposed to the hazard of falling. The location of the anchorage is carefully selected to:

    a. Reduce possible free fall distance.

    b. Prevent the risk of swinging into a structural object while falling.

    c. Provide a clear space for fall so an employee does not hit an object when falling.

2. An anchorage point below the working site is never selected because that increases the fall distance.

B. Free Fall Distance

Free fall is the act of falling before the personal fall arrest system begins to apply force to stop the fall. Personal fall arrest systems are rigged so that the potential free fall distance does not exceed 6 feet.

C. Deceleration distance.

After a free fall the breaking device (softstop) on the lanyard activates and applies force to stop the fall. The deceleration distance does not exceed 3.5 feet.

D. Employee Movements

All necessary movements of the employee, and the materials and equipment needed to perform the planned work are identified.

Crossing or tangling connecting systems of two or more workers in the area is avoided.

E. Swing Falls

Swing falls occur when the system is not anchored directly above the user. The force of striking an object in a pendulum motion can cause serious injury. Swing falls are minimized by working as directly below the anchorage point as possible.

F. Clear Space in Fall Path

The fall path is clear and free from all structural objects to assure that employees have a clear falling path free from striking an object when falling.

The total fall distance of the personal arrest system (sum of the free fall distance and deceleration distance) is taken into consideration.

G. Hazards Identified in the Workplace Assessment

Hazards identified in the workplace assessment are addressed and controls implemented to make the work area safe. This includes the fall arrest system or employee coming in contact with sparks, flames, chemicals, electrical hazards, sharp objects, etc.

H. Rescue and Evacuation

All measures are taken so that employees sustain minimal injury if a fall occurs (full body harness, softstop, etc.).

If a fall occurs and our employee is working alone, we rely on other contractors or the building owners' employees working in the area to assist the individual.

VIII. DONNING THE PULLOVER HARNESS

A. The harness, lanyard, and anchorage system are inspected.

1. All webbing (straps) and stitching is inspected for cuts, fraying, pulled or broken threads, abrasion, excessive wear, altered or missing straps, burns, and heat or chemical exposures.

2. All metallic parts (D-rings, oval rings, buckles and adjusters) are inspected for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, deep nicks, and missing or loose parts.

3. When an inspection reveals any signs of excessive wear or any type of damage that reduces the effectiveness of the equipment, the equipment is removed and destroyed.

B. The back D-ring is located, the harness is raised, and twisted straps are adjusted before continuing.

C. The right hand and arm are placed through the right shoulder strap. The left hand and arm are placed through the left shoulder strap.

D. The harness is adjusted so the D-ring is centered between the shoulder blades.

E. The right thigh strap is placed between the legs and the strap is connected to the friction buckle. The left thigh strap is placed between the legs and the strap is connected to the friction buckle.

Note: The seat strap is positioned at the crease of the buttocks and thighs.

F. The waist strap is connected to the friction buckle.

G. The shoulder straps, thigh straps, and waist strap are adjusted so that all of the slack is out of the harness and the harness fits snug. The back D-ring is centered between the shoulder blades.

IX. MAKING PROPER CONNECTIONS

When using a snaphook to connect to an anchorage or when connecting components of the system together, it is certain that accidental disengagement (rollout) cannot occur.

Rollout is possible when the interference between a snaphook and the mating connector causes the snaphook's keeper to open and release.

Rollout can also occur when a snaphook is snapped into an undersized ring such as an eye bolt or other non-compatibly shaped connector.

Only self-closing, self-locking snaphooks are used to reduce the possibility of rollout when making connections.

DON'TS

A. Employees do not use snaphooks or connectors that do not completely close over the attachment object.

B. Employees do not make knots in a lanyard.

C. Employees do not hook the lanyard back onto itself.

D. Employees do not connect snaphooks to each other.

E. Employees do not attach two snaphooks into one D-ring.

X. CLEANING AND STORAGE

A. Cleaning

Excessive accumulation of dirt may prevent proper function of the harness and in severe cases weaken the webbing. The following steps are used to clean the fall arrest system.

1. The harness, lanyard, and cross-arm strap are cleaned with a solution of water and mild laundry detergent.

2. The hardware is dried with a clean cloth and the harness is hung to air dry. Heat is not used to speed dry.

B. Storage

The harness is stored in a cool, dry and clean place out of direct sunlight. Areas of heat, moisture, light, oil, and chemicals are avoided.

XI. TRAINING

Employees who perform work that requires the use of fall protection receive training on the proper steps and procedures for performing the work in a safe manner. Training includes the following:

A. Identification of potential fall hazards.

B. Types of personal fall protection systems.

C. Selection of a personal fall protection system.

D. What happens when you fall.

E. The proper use of a personal fall arrest system.

F. Inspection and proper maintenance for fall protection equipment.

All training is documented and kept on file.

Fire Safety Program

for

AZTEC ENVIRONMENTAL, INC.
(name of business)

2060 North Sherman Avenue
(address)

Panama City,	Florida	32405
(city)	(state)	(ZIP code)

Debbie K. Livingston	President	8507-0078
(print name of preparer)	(title)	(phone number)

Prepared by: Debbie K. Livingston
(signature)

Date:
8/4/98

The following fire safety written program has been developed in accordance with OSHA Fire Safety Standard, 29 CFR 1910.38.

Responsibility

Debbie K. Livingston

(name or title of administrator)

is solely responsible for all facets of this program and has the full authority to make necessary decisions to ensure the success of this program.

President

(name or title of developer)

will develop detailed written instructions where required by this program, and will amend these instructions when necessary.

SUPERVISOR

(name or title of trainer)

is responsible for training employee in the use of fire extinguishers, the use of the evacuation plan, and any other training required by this program.

Fire Exits

Each workplace building must have at least two means of escape remote from each other to be used in a fire emergency.

Fire doors must not be blocked or locked to prevent emergency use when employees are within the buildings. Delayed opening of fire doors is permitted when an approved alarm system is integrated into the fire door design.

Exit routes from buildings must be clear and free of obstructions and properly marked with signs designating exits from the building.

SUPERVISOR

(name or title)

is responsible for inspecting fire exits. Inspections will be performed Weekly .

(weekly/monthly)

Portable Fire Extinguishers

Each workplace building must have a full complement of the proper type of fire extinguisher for the fire hazards present.

Employees expected or anticipated to use fire extinguishers must be instructed on the hazards of fighting fire, how to properly operate the fire extinguishers available, and what procedures to follow in alerting others to the fire emergency. Training will be provided by the person responsible for training, who is named on the first page of this program.

Only approved fire extinguishers are permitted to be used in workplaces, and they must be kept in good operating condition.

SUPERVISOR

_____

(name or title)

will maintain and inspect fire extinguishers at least monthly. All fire extinguishers will be inspected annually by an outside fire extinguisher company.

In those situations where the employer wishes to evacuate employees instead of having them fight small fires, there must be written emergency plans and employee training for proper evacuation.

Emergency Evacuation Planning

Each workplace must have a written emergency action plan for evacuation of employees that includes:

- evacuation routes and procedures for all employees
- procedures for accounting for all evacuated employees
- special procedures for evacuating physically impaired employees
- procedures for those employees who must remain behind temporarily to shut down critical plant equipment
- the means of alerting employees to a fire emergency
- the means for employees to report emergencies

The written plan must be available for employee review.

An employee alarm system must be available throughout the workplace complex and must be used for emergency alerting for evacuation. The alarm system may be voice communication or sound signals such as bells, whistles, or horns.

Employees must be trained in the following:

- recognizing the evacuation signal
- their role in the emergency evacuation plan

All new or transferred employees must be trained in the emergency evacuation program when beginning their job duties. All employees must be trained in any changes in the plan.

The Developer, who is responsible for developing detailed written instructions, as well as the Trainer, who is responsible for training employees about the plan, are named on the first page of this program.

Fire Prevention Plan

Stopping unwanted fires from occurring is the most efficient way to handle them.

SUPERVISOR

_____

(name or title)

will draft a written fire prevention plan to complement the fire evacuation plan to minimize the frequency of evacuation. The plan must include:

- housekeeping procedures for storage of flammable materials
- cleanup procedures for flammable waste
- handling and packaging procedures for flammable waste, including recycling
- safety rules regarding smoking, welding, and other burning within the workplace

This written plan is available for employee review.

Heat producing equipment such as burners, heat exchangers, boilers, ovens, stoves, fryers, etc., must be properly maintained and kept clean of accumulations of flammable residues. Heat producing sources will be inspected Weekly.
(weekly/monthly)

Flammables are not to be stored close to these pieces of equipment.

All employees must be trained in the potential fire hazards of their jobs and in the procedures listed in the fire prevention plan. All new or transferred employees must be trained in the fire prevention plan when beginning their job duties. All employees must be trained in any changes in the plan.

The Developer, who is responsible for developing detailed written instructions, as well as the Trainer, who is responsible for training employees about the plan, are named on the first page of this program.

Fire Suppression System

Properly designed and installed fixed fire suppression systems enhance fire safety in the workplace. An automatic sprinkler systems throughout the workplace is among the most reliable fire fighting means. That type of system should detect the fire, sound an alarm, and put water where the fire and heat are located.

If an automatic fire suppression system is being used, the following regulations will become part of this program.

1. SUPERVISOR will maintenance the automatic fire
   (name or title)

   suppression system in serviceable condition.

2. The administrator of this program will name a fire watch of trained employees to respond quickly to any fire emergency for those times when it is necessary to disable the fire suppression system while the business continues to operate. The fire watch must comply with the fire prevention plan and emergency action plan.

If the fire suppression system uses agents that are a serious health hazard (such as carbon dioxide, Halon 1211, etc.), the following regulations will become part of this program:

1. Signs will be posted in areas protected by the fire suppressant system.

2. The system will be equipped with an alarm system to warn employees of the impending discharge and allow them time to evacuate the area.

3. SUPERVISOR will develop an emergency action
   (name or title)

   plan to provide for the safe evacuation of employees who could be exposed to hazardous fire suppressants. Employees will be trained in the fire suppression system evacuation program as part of the overall evacuation plan for the workplace facility.

AZTEC ENVIRONMENTAL, INC.

HAZARD ASSESSMENT PLAN

- employee training and certification

Employers Covered

Every employer is required to conduct a hazard assessment.

This sample Hazard Assessment Plan is designed to follow the OSHA requirement for a written hazard assessment found in 29 CFR 1910.132. As part of their hazard assessment responsibilities. every employer must also require employees to wear respirators when necessary to protect their health. Any employer whose employees must wear respirators as protective devices is also required to develop and implement a respirator plan.

Hazard Assessment Plan

AZTEC ENVIRONMENTAL, INC.

2060 N. SHERMAN AVENUE

PANAMA CITY, FLORIDA 32405

Hazard assessment certified by:

DEBBIE K. LIVINGSTON 904-747-0078

PRESIDENT

signature Debbie K. Livingston date **JUNE 19, 1998**

General Requirements

OSHA requires employers to assess their workplaces to determine if any hazards require the use of

personal protective equipment (PPE). Protective equipment must be used whenever hazards or processes of the environment, chemical hazards, radiological hazards, or mechanical irritants could cause injury or impairment through absorption, inhalation, or physical contact.

The employer must identify hazards that are either actually present or likely to be present. If such hazards exist, the employer must:

- select the types of PPE that will protect against the identified hazards
- verify the hazard assessment in writing
- inform employees of the PPE that is selected by the employer
- require employees to use the selected PPE
- ensure that any PPE provided to employees is of the correct type and properly fits each employee
- provide training to each employee who is required to use PPE
- not use damaged or defective PPE

Reassessment of Hazards

The safety officer is required to reassess the workplace hazard situation as necessary by:

- identifying and evaluating new equipment and processes;
- reviewing accident records; and
- reevaluating the suitability of previously selected PPE.

Controlling Hazards – In General

PPE devices alone should not be relied on to provide protection against hazards. They should be used in conjunction with guards, engineering controls, and sound manufacturing practices. In fact, employers should first attempt to eliminate or reduce hazards through engineering and administrative controls. PPE should be used if the engineering and administrative controls cannot provide complete protection.

Assessment and Selection – In General

General guidelines should be followed for assessing the foot, head, eye and face, and hand hazards that exist in an operation or process and for matching the protective devices to the particular hazard. The safety officer has the responsibility to exercise common sense and appropriate knowledge to make the assessment and selection. To assess the need for PPE, the following guidelines should be followed:

Conduct Survey

A walk-through survey of the areas in question should be conducted. The survey helps identify sources of hazards to workers. Consideration should be given to the following basic hazard categories:

- impact
- penetration
- compression (roll-over)
- chemical
- heat
- harmful dust
- light (optical) radiation

Observe Sources Of Hazards

During the walk-through survey, the safety officer should observe:

- sources of motion (e.g., machinery or processes where any movement of tools, elements or particles could exist or movement of personnel could result in collision with stationary objects)
- sources of high temperatures that could result in burns, eye injury, ignition of protective equipment, etc.
- types of chemical exposures
- sources of harmful dust
- sources of light radiation, i.e., welding, brazing, cutting, furnaces, heat treating, high intensity lights. etc.
- sources of falling objects or potential for dropping objects
- sources of sharp objects that might pierce the feet or cut the hands
- sources of rolling or pinching objects that could crush the feet
- layout of workplace and location of workers
- any electrical hazards

Review Injury/Accident Data

In addition to the walk-thorough survey, injury/accident data should be reviewed to help identify problem areas.

Organize Data

Following the walk-through survey and review of injury/accident data, the information must be organized for the hazard assessment. Organization of the information aids in the analysis of the hazards in the environment. This in turn helps ensure proper selection of protective equipment.

Analyze Data

After workplace data has been gathered and organized, an estimate of the potential for injuries should be made. Each of the basic hazards should be reviewed and a determination made for each of the hazards found in the area as to:

- the type;
- level of risk; and
- seriousness of potential injury.

The possibility of exposure to several hazards simultaneously must be considered.

Guidelines for Selection and Use of PPE – In General

- Become familiar with the potential hazards and the type and effectiveness of protective equipment available (e.g., splash protection, impact protection, etc.)
- Be sure to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. For example, operations involving heat may also involve light radiation. Protection from both hazards must be provided.
- Select the protective equipment that ensures a level of protection greater than the minimum required to protect employees from the hazards. Adequate protection against the highest level of each of the hazards should be provided. **Protective devices do not provide unlimited protection, however.**
- Compare the hazards associated with the environment (e.g., impact velocities, masses, projectile shape, radiation intensities) with the capabilities of the available PPE.
- Fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users are made aware of all warning labels for and limitations of their PPE.

Fitting the Device

Careful consideration must be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. In addition, continued wearing of the devices by employees is more likely if they fit the wearers comfortably.

Protective devices are generally available in a variety of sizes. Care must be taken to make sure that the right size is selected.

Devices with Adjustable Features

Individual adjustments should be made to provide a comfortable fit and maintain the protective device in the proper position. Particular care must be taken in fitting devices for eye protection against dust and chemical splash to ensure that they are sealed to the face. In addition, proper fitting

of helmets helps ensure that they will not fall off during work operations. In some cases, a chin strap may be necessary to keep the helmet on an employee's head. (Chin straps should break at a reasonably low force, however, so as to prevent a strangulation hazard.) If manufacturer's instructions are available, they must be followed carefully.

Eye and Face Protection – General Guidelines

(1) Employees must use appropriate eye or face protection when exposed to hazards from:

- flying particles
- molten metal
- liquid chemicals
- acids or caustic liquids
- chemical gases or vapors
- potentially injurious light radiation

(2) Protective eye and face devices purchased on or after July 5, 1994, must comply with ANSI Z87.1-1989 or be equally effective. Devices purchased before that date must comply with ANSI Z87.1-1968 or be equally effective.

(3) Face-shields should be worn only over primary eye protection (spectacles or goggles).

(4) Persons whose vision requires the use of prescription lenses must wear either protective devices fitted with prescription lenses or protective devices designed to be worn over regular prescription eyewear.

(5) Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. Dusty and chemical environments may represent an additional hazard to contact lens wearers.

(6) Some occupations (not a complete list) for which eye and face protection should be routinely considered are:

- carpenters
- electricians
- machinists
- mechanics
- repairers
- millwrights
- plumbers
- pipe fitters
- sheet metal workers
- sanders
- grinding machine operators
- lathe operators
- milling machine operators
- sawyers
- welders
- laborers
- chemical process operators
- chemical handlers

- tinsmiths
- assemblers
- timber cutters
- logging workers

(7) The following chart provides general guidance for the selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations:

Eye and Face Protection Selection Chart

Source	Assessment of Hazard	Protection
Impact – chipping, grinding, machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding	flying fragments, objects, large chips, particles, sand, dirt, etc.	spectacles with side protection, goggles, face-shields; for severe exposure, use face-shield
Heat – furnace operations, pouring, casting, hot dipping, and welding	hot sparks	face-shields, goggles, spectacles with side protection; for severe exposure, use face-shield
	splash from molten metals	face-shields worn over goggles
	high temperature exposure	screen face-shields, reflective face-shields
Chemicals – acid and chemicals handling, degreasing, plating	splash	goggles, eyecup and cover types; for severe exposure, use face-shield
	irritating mists	special-purpose goggles
Dust – woodworking, buffing, general dusty conditions	nuisance dust	goggles, eyecup and cover types
Light and/or Radiation		
welding: electric arc	optical radiation	welding helmets or welding shields; typical shades: gas welding 4-8, cutting 3-6, brazing 3-4
welding: gas	optical radiation	welding goggles or welding face-shield; typical shades: gas welding 4-8, cutting 3-6, brazing 3-4
cutting, torch; brazing, torch; soldering	optical radiation	spectacles or welding face-shield; typical shades: 1.5-3
glare	poor vision	spectacles with shaded or special-purpose lenses, as suitable

(8) The chart below provides general guidance for the selection of eye protection to protect against radiant energy:

Filter Lenses for Protection Against Radiant Energy

Operations	Electrode Size 1/32 in.	Arc Current	Protective Shade
Minimum			
Shielded metal arc welding		less than 3	less than 60 7
		3-5	60-160 8
		5-8	160-250 10
		more than 8	250-550 11
Gas metal arc welding and flux cored arc welding			less than 60
		60-160	7
			10
		160-250	10
		250-500	10
Gas tungsten arc welding		less than 50	8
		50-150	8
		150-500	10

Air carbon	(light)	less than 500	10
Arc cutting	(heavy)	500-1000	11
Plasma arc welding		less than 20	6
	20-100	8	
	100-400	10	
	400-800	11	
Plasma arc cutting	(light)	less than 300	8
	(medium)	300-400	9
	(heavy)	400-800	10
Torch brazing		3	
Torch soldering		2	
Carbon arc welding		14	

Operations	Plate thickness (inches)	Plate thickness (mm)	Protective Shade
Gas Welding:			
Light	under 1/8 in.	under 3.2 mm	4
Medium	1/8 to 1/2 in.	3.2 to 12.7 mm	5
Heavy	over 1/2 in.	over 12.7 mm	6
Oxygen cutting:			
Light	under 1 in.	under 25 mm	3
Medium	1 to 6 in.	25 to 150 mm	4
Heavy	over 6 in.	over 150 mm	5

Eye and Face Protection – Selection

Requirements for side protection, prescription lenses, filter lenses, and identification of the manufacturer of safety equipment must be specified below.

An assessment of this facility has been completed in accordance with the above Eye and Face Protection – General Guidelines, including the appli-cable ANSI standards. Employees required to wear eye
and face protection. are/are not

Required PPE will be used in the specific situations and locations listed below:

1.

2.

3.

4.

5.

6.

7.

8.

Head Protection – General Guidelines

(1) Protective helmets purchased on or after July 5, 1994, must comply with ANSI Z89.1-1986 or be equally effective. Helmets purchased before that date must comply with ANSI Z89.1-1969 or be equally effective.

(2) Employees must wear protective helmets when working in areas where there is a potential for a head injury from falling objects. All helmets must be designed to provide this protection.

Some examples include:

- working below other workers who are using tools and materials that could fall
- working around or under conveyor belts that are carrying parts or materials
- working below machinery or processes that might cause material or objects to fall
- working on exposed energized conductors

(3) Examples (not a complete list) of occupations for which some form of head protection should be routinely considered are:

- carpenters
- electricians
- linemen
- mechanics
- repairers
- plumbers
- pipe fitters
- assemblers
- packers
- wrappers
- sawyers
- welders
- laborers
- freight handlers
- timber cutters
- logging workers
- stock handlers
- warehouse laborers

(4) When selecting head protection, electric shock and burn hazards must be guarded against as well as dangers from falling objects. Protective helmets designed to reduce electrical shock hazards must be worn by each affected employee when electrical conductors or other electrical hazards could contact the head.

In selecting head protection, knowledge of potential electrical hazards is essential.

- Class A helmets – in addition to impact and penetration resistance, provide electrical protection from low-voltage conductors (they are proof tested to 2,200 volts)
- Class B helmets – in addition to impact and penetration resistance, provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts)
- Class C helmets – provide impact and penetration resistance, but they are usually made of aluminum, which conducts electricity. They should **not** be used around electrical hazards

Head Protection – Selection

An assessment of this facility has been completed in accordance with the above Head Protection – General Guidelines, including the applicable ANSI standards. Employees are/are not required to wear head protection.

PPE of the type specified will be used in the specific situations and locations listed below:

1.

2.

3.

4.

5.

6.

7.

8.

Foot Protection – General Guidelines

(1) Employees must wear protective footwear (safety shoes and boots) when working in areas where there is a danger of foot injuries from:

- falling or rolling objects
- objects piercing the sole
- exposure of employees' feet to electrical hazards

Protective footwear purchased on or after July 5, 1994, must comply with ANSI Z41-1991 or be equally effective. Protective footwear purchased before that date must comply with ANSI Z41.1-1967 or be equally effective.

29 CFR 1910.136(b)

(2) Protective footwear must provide both impact and compression protection. Safety shoes or boots with impact protection would be required, for example, for workers carrying or handling materials such as packages, objects, parts, or heavy tools that could be dropped, and for other workers performing activities during which objects might fall onto the feet. Safety shoes or boots with compression protection would be required, for example, for work activities involving skid trucks (manual material handling carts), around bulk rolls (such as paper rolls), and heavy pipes, all of which could potentially roll over an employee's feet.

(3) Where necessary, safety shoes must also provide puncture protection. An example would be the situation where sharp objects (such as nails, wire, tacks, screws, large staples, scrap meta etc.) could be stepped on by employees and cause a foot injury.

(4) In some special situations, metatarsal protection is required. In others, electrical conductive

insulating safety shoes would be necessary.

5) Some occupations (not a complete list) for which foot protection should be routinely considered are:

- shipping clerks
- receiving clerks
- stock clerks
- carpenters
- electricians
- machinists
- mechanics
- repairers
- plumbers
- pipe fitters
- structural metal workers
- assemblers
- drywall installers
- lathe operators
- packers
- wrappers
- craters
- punch operators
- stamping press operators
- sawyers
- welders
- laborers
- freight handlers
- gardeners
- groundskeepers
- timber cutters
- logging workers
- stock handlers
- warehouse laborers

Foot Protection – Selection

An assessment of this facility has been completed in accordance with the above Foot Protection – General Guidelines, including the applicable ANSI standards. Employees required to wear foot protection. are/are not

PE of the type specified will be used in the specific situations and locations listed below:

1.

2.
3.

4.

5.

6.

7.

8.

Hand Protection – General Guidelines

(1) Employers must require employee use of appropriate hand protection whenever employees' hands are exposed to hazards from:

- skin absorption of harmful substances

- severe cuts or lacerations
- severe abrasions
- punctures
- chemical burns
- thermal burns
- harmful temperature extremes

(2) Employers will select appropriate hand protection based on an evaluation of:

- the performance of the hand protection relative to the tasks to be performed;
- the conditions present;
- the duration of use; and
- the actual and potential hazards identified.

(3) Gloves are often relied on to prevent cuts, abrasions, burns, and skin contact with chemicals that can cause local or systemic effects following skin exposure. We are unaware of any gloves that provide complete protection against all potential hand hazards. Commonly available glove materials provide only limited protection against many chemicals. It is important:

- to select the most appropriate glove for a particular application;
- to determine how long it can be worn; and
- to determine whether it can be reused.

An assessment of this facility has been completed in accordance with the above Hand Protection – General Guidelines, including the applicable ANSI standards. Employees required to wear hand protection. are/are not

PPE of the type specified will be used in the specific situations and locations listed below:

1.

2.

3.

4.

5.

6.

Required Training – In General

The employer must provide training to each employee required to use PPE. Training will include:

when PPE is necessary

- what PPE is necessary
- how to wear PPE
- the limitations of PPE
- proper care, maintenance, useful life, and disposal of PPE

The employer must certify in writing that the employee has received and understands the training. The certification record will identify:

- each employee trained
- the dates of training
- the document that establishes Certification of Training in the use of PPE

When an employee who is already trained no longer has the understanding or skill to be protected from hazards, the employer must retrain the employee. Circumstances requiring retraining include:

changes in the workplace that render previous training obsolete,

- changes in the types of PPE that render previous training obsolete, or
- the employee's failure to continue to correctly use the assigned PPE.

Training Certification Record

SEAGULL
903 N.W. 6TH AVENUE
FT. LAUDERDALE, FL 33311

MIKE KOSTOFF

RETRA TRAINING SERVICES
1730 S. ALT US 19 SUITE D
TARPON SPRINGS, FL 32689

JOHN SAVALINE

This certifies that the following employees received training on the proper use of necessary PPE on the dates listed below:

DATE	EMPLOYEE NAME	S.S#	ASBESTOS EXPERIENCE	LEAD EXP.
SUPERVISORS:				
11/22/97	Charles Thomas	267-57-1099	1996	N/A
11/22/97	Joe Parrish	591-32-6238	1997	1997
11/22/97	John Wayne Nelson	263-85-5662	1993	N/A
11/22/97	Ruben Medina	591-72-2014	1990	N/A
11/22/97	Debbie K. Livingston	263-23-2354	1996	1995
08/09/97	Zechariah Knight	262-89-9283	1983	1992
01/16/98	Clay Fennell	266-55-3259	1993	1995
07/27/97	Jimmy Livingston	263-23-0209	1985	1991
09/09/97	Mell Cason	262-13-3491	1990	1992
WORKERS:				
11/03/97	Dennis Grady	263-59-3555	1993	1995
11/03/97	Dwight Leath	261-41-4583	1993	1995
09/15/97	Robert Murray	261-78-0462	1990	1992
11/23/97	Henry Spinks	264-96-8358	1990	1992
04/25/97	Jose' Roberts	595-49-0542	1996	1997
04/25/97	Harold Johnson	267-82-1143	1996	1997
05/17/97	Miguel Medina	591-72-5670	1990	N/A
05/17/97	Aura Vielman	436-73-1007	1990	N/A
04/25/97	Samuel Johnson	262-57-8166	1996	1997
05/17/97	Marco Medina	592-65-5252	1990	N/A
11/23/97	Lijia Salazar	634-56-4657	1996	N/A
05/17/97	Jose' Vielman	439-71-6659	1996	N/A
09/14/97	Lemmon Young III	594-05-6847	1996	N/A

RESPIRATORY PROTECTION SCHEDULE

Project Name WHITING FIELD

Location Milton, Florida

Date 1/14/98 Work Area Building #1465

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 1/14/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

southern earth sciences, inc.
Consulting Geotechnical and Testing Engineers
Environmental Consultants

Client: Aztec Environmental, Inc.
Location: Whiting Field
Project: Building 1465
(Pipe Insulation)
Negative Exposure/Removal done in ½ Face Mask

File No.: F-97-699
Lab No.: Field
Page 1 of 1

AIR FILTER ANALYSIS RESULTS

Sample No.	Date	Pump Location	Flow Rate Liters Per Minute	Total Time	Volume	Fiber Concentration (Fibers/CC)
01	01/12/98	BD/N Entrance	10.0	130	1300	0.034
02	01/12/98	BD/Hallway Women's restroom	10.0	130	1300	0.016
03	01/12/98	PAS/GB/Parrish	2.5	130	325	0.021
04	01/13/98	PAS/Dr/M Medina	2.5	295	237	0.032
05	01/13/98	IWA/DR/Restroom	3.0	470	1290	0.012
06	01/13/98	OWA	3.5	460	1610	0.005
07	01/13/98	NAM/Exhaust	3.5	460	1610	<0.005
08	01/13/98	PAS/DCU/Medina	2.5	130	325	0.023
09	01/14/98	PAS/GB/Vielman OUTSIDE PIPE	2.0	160	200	<0.024
10	01/14/98	PAS/DR/A. Vielman	2.0	250	560	0.011
11	01/14/98	OWA/Decon	3.5	260	910	<0.005

BD = Background
NAM = Negative Air Machine
PAS = Personal Air Sample -
OWA = Outside Work Area
IWA = Inside Work Area
DR = During Removal

Method: NIOSH 7400 Phase Contrast Microscopy (PCM)

Consultant: Michael K. Varner, P.E.
Asbestos Consultant No.:0023
State of Florida

Analyst: R. Kempf

1/19/98

416 Jenks Avenue, 32401-2626 • P.O. Box 816 • Panama City, Florida 32402-0816
850/769-4773 • FAX 850/872-9967

RESPIRATORY PROTECTION SCHEDULE

Project Name Residential Home

Location 407 Navy Cove Blvd.

Date 2/21/98 Work Area Home

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM		SEE ATTACHED		
Work Area Clean-Up				
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 2/21/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
2/20/98	1-PERS	1	HENRY SPINKS	310	2.1	0.11	0.008	0.008	0.008	PERS. SAMPLE
2/21/98	2-PERS	1	SAM JOHNSON	290	2.2	0.07	0.005	0.008	< 0.008	PERS. SAMPLE
2/21/98	3-PERS	1	ZACK KNIGHT	189	2.0	0.08	0.010	0.013	< 0.013	PERS. SAMPLE

Client: AZTEC ENVIRONMENTAL, INC.
407 NAVY COVE BLVD.

Job #: Residential Home

Note: Negative Fiber Count (-) indicates a voided sample.

Sampled By: AZTEC

Analyzed By: NFES

Analytical Method: 7400

NEGATIVE EXPOSURE (OSHA-1101)
ALL REMOVAL IN HALF-FACE RESPIRATORS/Ceiling Scape

NORTH FLORIDA ENVIRONMENTAL SERVICES

RESPIRATORY PROTECTION SCHEDULE

Project Name CHERRY STREET ELEMENTARY

Location Panama City, FL

Date 1/24/98 Work Area Classroom

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) inside the respirator facepiece.

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K Livingston Date 1/24/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

2711 West 15th Street
Panama City, FL 32401

Tel: (850) 769-4773
Fax: (850) 872-9967
E-Mail: SES1@Beaches.net

SOUTHERN EARTH SCIENCES, Inc.

Geotechnical &
Environmental
Consultants

Client: Bay County School Board
Location: Cherry Street Elementary
Project: Phase II Work
Ceiling Scrape
Negative Exposure/All Removal Done in ½ Face Respirators

File No.: F98-478
Lab No.: Field
Page 1 of 1

AIR FILTER ANALYSIS RESULTS

Sample No.	Date	Pump Location	Flow Rate Liters Per Minute	Total Time	Volume	Fiber Concentration (Fibers/CC)
01	1-22-98	PAS-H.Spinks DR/DCU SS#:264-96-8358	2.5	150	375	0.064
02	1-23-98	PAS-H. Spinks	2.5	195	487.5	0.042
03	1-23-98	PAS-Spinks	2.5	165	412.5	void/wet
04	1-24-98	PAS-R. Medina DR/DCU	2.5	165	412.5	0.044
	1-24-98	PAS-J. Vielman DR/DCU SS#:439-71-6659	2.5	195	487.5	0.054

AS = Personal Air Sample DR = During Removal DCU = During Clean-Up

Method: NIOSH 7400 Phase Contrast Microscopy (PCM)

Consultant: Michael K. Varner, P.E.
Asbestos Consultant No.:0023
State of Florida

1/25/98

Analyst: D. Callahan

RESPIRATORY PROTECTION SCHEDULE

Project Name FT. WALTON BEACH HOUSING AUTHORITY

Location Ft. Walton Bch., Florida

Date 3/4/98 Work Area Homes

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/16/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

North Florida Environmental Services, Inc.

2925 Bluefield Lane Tallahassee, Florida 32308 850-906-9377

Air Monitoring Data Sheet

FLOOR TILE/Negative Exposure/All Removal Done in ½ Face Respirators

Sample Date: 3-4-98 **Project:** FWB HA **Call/Project #:** _____

Sampled By: MARK S. GRIFFITH **Building#:** VARIOUS **Collection Media:** PCM

Compound(s) Sampled For: Fibers **Temperature*:** _____ **BP*:** _____ **RH*:** _____

Sample #	Pump#/ Type	Pump (lpm) Flow Rate	Start Time	Stop Time	Total Sample Time (Minutes)	Sample Location (If Personal Note Name)	Fibers/ Units	Detection Limit	Fibers/cc
21 PERS	pp-5 Low-vol	2.0	0900	1140	140	Miguel Medina	6/100	.017	.01
22 PERS	pp-5 Low vol	2.0	1310	1615	185	Miguel MEDINA	8/100	.013	.011
23-STEL	pp-6 Low-vol	2.0	0835	0910	35	MARCO MEDINA	1/100	.07	.007
24-PERS	pp 6 Low-vol	2.0	0910	1150	160	MARCO MEDINA	5/100	.015	.008
25-BL	—	—	—	—	—	LAB BLANK	1/100	—	—

Notes: (Describe activities, unusual conditions, weather,) SAMPLES 21 + 22 WERE COLLECTED ON 3-3-98 AND ANALYZED ON 3-4-98. SAMPLES 23 + 24 WERE COLLECTED + ANALYZED ON 3-4-98

*Record if available

Signature: _____ **Date:** 3-4-98

RESPIRATORY PROTECTION SCHEDULE

Project Name OKALOOSA APPLIED TECHNOLOGY CENTER

Location Ft. Walton Beach, Florida

Date 4/13/98 Work Area Building

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/16/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

psi Environmental Geotechnical Construction
Consulting • Engineering • Testing

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 1 of 1
Client Address: Panama City, Florida	Report Date: 04/15/98	Report No.: 2872
Project Site: Okaloosa Applied Technology Center	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.013.001-002	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
013001	04/13/98	Vinyl Flooring Removal	Edwin Salazar, 637-04-5960 Personal Sample	270	675	15.5	100	0.004	0.01
013002	04/13/98	Removal	Marco Medina, 592-65-5252 Personal Sample	280	700	4	100	0.004	< 0.01

Collector: Client	Analyst: A. Richmond

Professional Service Industries, Inc. (PSI) analysts participate in the American Industrial Hygiene Associations (AIHA) Asbestos Analysts Registry (AAR) Program. Analyses of all samples were conducted in accordance with the NIOSH 7400 Method. Calculated fibers/cc results are based on volumetric data provided by the client; therefore, PSI cannot certify these results.

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for this report by the client. The client assumes all liability for the further distribution of this report or its contents and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents thereof.

Quality Assurance and Quality Control

Industrial Hygiene Services

Notes:
Time (min) = Duration of sample in minutes
Vol. (L) = Volume of sample in liters of air
FBS = Fibers counted
FDS = Fields counted
LOD (f/cc) = Limit of detection of sample in fibers per cubic centimeter of air
Results (f/cc) = Sample results in fibers per cubic centimeter of air

* FLOOR TILE
** Negative Exposure/All Removal done in ½ Face Respirators

RESPIRATORY PROTECTION SCHEDULE

Project Name RAYTHEON COMMERCIAL LAUNDRY

Location Marianna, Florida

Date 4/28/98 Work Area Plant Machine Shop

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/28/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
4-25-98	001	1	Raytheon Marianna Plant Machine Shop	135	10.0	0.10	0.004	0.004	0.004	Work Area Sample During Glove Bag Repair Ope
4-25-98	002	1	Raytheon Marianna Plant Machine Shop	130	10.0	0.08	0.003	0.004	< 0.004	Work Area Sample During Glove Bag Repair Ope
4-25-98	003	1	Raytheon Marianna Plant Machine Shop	140	10.0	0.13	0.005	0.004	0.005	Work Area Sample During Glove Bag Repair Ope
4-25-98	004	1	Raytheon Marianna Plant Machine Shop	130	10.0	0.07	0.003	0.004	< 0.004	Work Area Sample During Glove Bag Repair Ope
4-25-98	005	1	Raytheon Marianna Plant Machine Shop	85	2.0	0.03	0.011	0.038	< 0.038	Excursion Sample Clifford Posey
4-25-98	006	1	Raytheon Marianna Plant Machine Shop	240	2.0	0.12	0.012	0.010	0.012	Personal Sample Joe Ferris
4-25-98	007	1	Raytheon Marianna Plant Machine Shop	--	--					Field Blank Read Clean

Client: Raytheon Commercial Marianna, Florida Glovebag TSI Abate Wrap/Tape/Seal, Aztec Abatement

Job #: Pipe Insulation

Note: Negative Fiber Count (-) Indicates a voided sample.

Sampled By: Bill Kappas, NFES

Analyzed By: Timothy Grobe, CSP

Analytical Method: NIOSH 7400

Negative Exposure/Removal done in ½ Face Mask

Timothy Grobe CSP

NORTH FLORIDA ENVIRONMENTAL SERVICES

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
4-28-98	001	1	Raytheon Marianna Plant Machine Shop	173	10.0	0.08	0.002	0.003	< 0.003	Work Area Sample During Glove Bag Abatement
4-28-98	002	1	Raytheon Marianna Plant Machine Shop	178	10.0	0.11	0.003	0.003	0.003	Work Area Sample During Glove Bag Abatement
4-28-98	003	1	Raytheon Marianna Plant Machine Shop	180	10.0	0.14	0.004	0.003	0.004	Work Area Sample During Glove Bag Abatement
4-28-98	004	1	Raytheon Marianna Plant Machine Shop	245	10.0	0.22	0.004	0.002	0.004	Work Area Sample During Glove Bag Abatement
4-28-98	005	1	Raytheon Marianna Plant Machine Shop	269	10.0	0.27	0.005	0.002	0.005	Work Area Sample During Glove Bag Abatement
4-28-98	006	1	Raytheon Marianna Plant Machine Shop	268	10.0	0.24	0.004	0.002	0.004	Work Area Sample During Glovebag Abatement
4-28-98	007	1	Raytheon Marianna Plant Machine Shop	72	10.0	0.07	0.005	0.007	< 0.007	Work Area Sample During Glovebag Abatement
4-28-98	008	1	Raytheon Marianna Plant Machine Shop	71	10.0	0.05	0.003	0.007	< 0.007	Work Area Sample During Glovebag Abatement
4-28-98	009	1	Raytheon Marianna Plant Machine Shop	78	10.0	0.08	0.005	0.006	< 0.006	Work Area Sample During Glovebag Abatement
4-28-98	010	1	Raytheon Machine Shop Personal	235	2.0	0.05	0.005	0.010	< 0.010	Work Area Personal Ruben Medina
4-28-98	011	1	Raytheon Machine Shop Personal	238	2.0	0.08	0.008	0.010	< 0.010	Work Area Personal Lijia Salazar
4-28-98	012	1	Raytheon Marianna Machine Shop Blank	--	--					Field Blank Read Clean From Cassette Lot

Client: Raytheon Commercial Laundry LLP Marianna FL, Glovebag TSI Abate Wrap/Tape/Seal, Aztec Abatement

Sampled By: Bill Kappas, NFES

Analyzed By: Timothy Grobe, CSP

Analytical Method: NIOSH 7400

Job #: Pipe Insulation

Note: Negative Fiber Count (-) indicates a voided sample

Negative Exposure/Removal done in ½ Face Mask

Timothy Grobe CSP

NORTH FLORIDA ENVIRONMENTAL SERVICES

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
4-29-98	001	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.06	0.002	0.003	< 0.003	Work Area Sample During Glove Bag Abatement
4-29-98	002	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.03	0.001	0.003	< 0.003	Work Area Sample During Glove Bag Abatement
4-29-98	003	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.20	0.007	0.003	0.007	Work Area Sample During Glove Bag Abatement
4-29-98	004	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.19	0.006	0.003	0.006	Work Area Sample During Glove Bag Abatement
4-29-98	005	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.10	0.003	0.003	0.003	Work Area Sample During Glove Bag Abatement
4-29-98	006	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.18	0.006	0.003	0.006	Work Area Sample During Glovebag Abatement
4-29-98	007	1	Raytheon Marianna Plant Machine Shop	190	10.0	0.11	0.003	0.003	0.003	Work Area Sample During Glovebag Abatement
4-29-98	008	1	Raytheon Marianna Plant Machine Shop	190	10.0	0.10	0.003	0.003	0.003	Work Area Sample During Glovebag Abatement
4-29-98	009	1	Raytheon Marianna Plant Machine Shop	190	10.0	0.19	0.005	0.003	0.005	Work Area Sample During Glovebag Abatement
4-29-98	010	1	Raytheon Machine Shop Personal	285	2.5	0.18	0.012	0.007	0.012	Personal Ruben Medina Glovebag Work
4-29-98	011	1	Raytheon Machine Shop Personal	285	2.5	0.28	0.019	0.007	0.019	Personal Lijia Salazar Glovebag Work
4-29-98	012	1	Raytheon Marianna Machine Shop	150	10.0	0.08	0.003	0.003	< 0.003	Work Area Sample During Glovebag Ops
4-29-98	013	1	Raytheon Marianna Machine Shop	148	10.0	0.15	0.005	0.003	0.005	Work Area Sample During Glovebag Ops
4-29-98	014	1	Raytheon Marianna Machine Shop	146	10.0	0.09	0.003	0.003	< 0.003	Work Area Sample During Glovebag Ops
4-29-98	015	1	Raytheon Marianna Personal	270	2.5	0.38	0.028	0.007	0.028	Personal Rubin Medina Glovebag Ops
4-29-98	016	1	Raytheon Marianna Personal Sample	270	2.5	0.12	0.009	0.007	0.009	Personal Lijia Salazar During Glovebag Support
4-29-98	017	1	Raytheon Marianna Field Blank	--	--					Field Blank Read 1 Fiber

Client: Raytheon Commerical Laundry LLC
Marianna FL, Machine Shop TSI
Glovebag & Pipe Wrap Abatement

Job #: Pipe Insulation

Note: Negative Fiber Count (-) indicates a voided sample

Sampled By: Bill Kappas, NFES

Analyzed By: Timothy Grobe, CSP

Analytical Method: NIOSH 7400

Negative Exposure/Removal done in ½ Face Mask

Timothy Grobe, CSP
NORTH FLORIDA ENVIRONMENTAL SERVICES

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
4-30-98	001	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.18	0.006	0.003	0.006	Work Area Sample During Glove Bag Abatement
4-30-98	002	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.17	0.006	0.003	0.006	Work Area Sample During Glove Bag Abatement
4-30-98	003	1	Raytheon Marianna Plant Machine Shop	150	10.0	0.19	0.006	0.003	0.006	Work Area Sample During Glove Bag Abatement
4-30-98	004	1	Raytheon Marianna Plant Machine Shop	170	10.0	0.17	0.005	0.003	0.005	Work Area Sample During Glove Bag Abatement
4-30-98	005	1	Raytheon Marianna Plant Machine Shop	170	10.0	0.14	0.004	0.003	0.004	Work Area Sample During Glove Bag Abatement
4-30-98	006	1	Raytheon Marianna Plant Machine Shop	170	10.0	0.22	0.006	0.003	0.006	Work Area Sample During Glovebag Abatement
4-30-98	007	1	Raytheon Marianna Plant Machine Shop	240	10.0	0.32	0.007	0.002	0.007	Work Area Sample During Glovebag Abatement
4-30-98	008	1	Raytheon Marianna Plant Machine Shop	240	10.0	0.35	0.007	0.002	0.007	Work Area Sample During Glovebag Abatement
4-30-98	009	1	Raytheon Marianna Plant Machine Shop	240	10.0	0.36	0.007	0.002	0.007	Work Area Sample During Glovebag Abatement
4-30-98	010	1	Raytheon Machine Shop Personal	360	2.5	0.31	0.017	0.005	0.017	Personal Miguel Medina Glovebag Work
4-30-98	011	1	Raytheon Machine Shop Personal	360	2.5	0.26	0.014	0.005	0.014	Personal Aura Vielman Glovebag Work
4-30-98	012	1	Raytheon Marianna Field Blank	--	--					Field Blank Read Clean
4-30-98	013	1	Raytheon Marianna Lab Blank	--	--					Lab Blank Read Clean

Client: Raytheon Commercial Laundry LLC Marianna, FL Machine Shop Abate TSI Glovebag, Cut & Wrap

Job #: Pipe Insulation

Note: Negative Fiber Count (-) Indicates a Voided sample.

Negative Exposure/Removal done in ½ Face Mask

Sampled By: Bill Kappas, NFES

Analyzed By: Timothy Grobe, CSP

Analytical Method: NIOSH 7400

Timothy Grobe, CSP
NORTH FLORIDA ENVIRONMENTAL SERVICES

RESPIRATORY PROTECTION SCHEDULE

Project Name Round Holiday Inn

Location Tallahassee, Florida

Date 5/1/98 Work Area Holiday Inn

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) inside the respirator facepiece.

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 5/1/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

AIR MONITORING REPORT

Date:	Sample #:	Floor:	Location:	Time (MIN):	Flow Rate: LPM	Fibers /Field:	Calc. Conc. f/cc	Detection Limit	Fiber Concentration.	Description
4/27/98	1-EXCUR	11	FLOOR ELEVEN	30	2.3	0.03	0.021	0.071	< 0.071	HENRY SPINKS
4/27/98	2-PERS	11	FLOOR ELEVEN	390	2.1	0.14	0.008	0.006	0.008	MIKE JOHNSON
4/28/98	3-EXCUR	11	FLOOR ELEVEN	32	2.0	0.05	0.038	0.077	< 0.077	ZACK KNIGHT
4/28/98	4-PERS	11	FLOOR ELEVEN	298	2.4	0.19	0.013	0.007	0.013	HENRY SPINKS
4/30/98	5-EXCUR	11	FLOOR ELEVEN	30	2.0	0.02	0.016	0.082	< 0.082	HENRY SPINKS
4/30/98	6-PERS	11	FLOOR ELEVEN	345	2.3	0.21	0.013	0.006	0.013	MIKE JOHNSON
5/1/98	7-EXCUR	11	FLOOR ELEVEN	34	2.1	0.05	0.034	0.069	< 0.069	ZACK KNIGHT
5/1/98	8-PERS	11	FLOOR ELEVEN	321	2.0	0.13	0.010	0.008	0.010	HENRY SPINKS

Client: T.H. - ROUND HOLIDAY INN - TALLAHASSEE, FLORIDA
AZTEC ENVIRONMENTAL, INC.

Sampled By: AZTEC

Analyzed By: NFES

Analytical Method: 7400

Job #: Ceiling Scrape/Pipe Insulation

Note: Negative Fiber Count (-) indicates a voided sample.

NEGATIVE EXPOSURE (OSHA-1101)
ALL REMOVAL IN HALF-FACE RESPIRATORS

NORTH FLORIDA ENVIRONMENTAL SERVICES

RESPIRATORY PROTECTION SCHEDULE

Project Name PALMETTO HIGH SCHOOL

Location Palmetto, Florida

Date 4/9/98 Work Area Building #4, Rm. 402

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) inside the respirator facepiece.

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Leyton Date 4/9/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

APOLLO ENVIRONMENTAL, INC.

AIR SAMPLE ANALYSIS

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
___ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17158	Date:	April 9th 1998
Collected by:	Mike Witt-Apollo	Date Collected:	April 9th 1998
Analyst:	Mike Witt	NIOSH Lab ID:	33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	Building four-room 402 black mastic removal	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume-Decon	120	9.9	1188	2	100	<0.003
2	High Volume-Air Exhaust	120	9.9	1188	0	100	<0.003
3	High Volume-Barriers	120	9.9	1188	3	100	<0.003
4	Personnel-Samuel johnson 262 57 8166	30	2.0	60	2	100	<0.065
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
Mike Witt	Zack Knight	ZACK KNIGHT

Comments: floor mastic abatement

M.F.A.= 0.00785

C/C

RESPIRATORY PROTECTION SCHEDULE

Project Name PALMETTO HIGH SCHOOL

Location Palmetto, Florida

Date 4/10/98 Work Area Building #31

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) inside the respirator facepiece.

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/10/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
__ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17160	Date:	April 10th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 10th 1998
Analyst:	Mike Witt	NIOSH Lab ID:	33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	Building 31-plaster wirelap ceiling abatement	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-Decon for building 31	120	9.9	1188	13	100	0.005
2	High Volume pump-Air Exhaust for building 31	120	9.9	1188	0	100	<0.003
3	High Volume pump-barriers for building 8	120	9.9	1188	8	100	0.003
4	Personnel pump-Lemmon Young 594 05 6847	30	2.0	60	3	100	<0.065
5	Personnel pump-Samuel Johnson 262 57 8166	480	2.0	960	31	100	0.015
	-						
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
F. Mike Witt	[signature]	Zach Knight

Comments: full containment, negative air---ceiling abatement

M.F.A.= 0.00785

C/C

RESPIRATORY PROTECTION SCHEDULE

Project Name PALMETTO HIGH SCHOOL

Location Palmetto, Florida

Date 4/13/98 & 4/14/98 Work Area Building #32 and Building #33

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/14/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
-X- Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
___ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17163	Date:	April 13th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 13th 1998
Analyst:	Mike Witt	NIOSH Lab ID:	33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	bld. 32- transite panels/bld. 4 window caulk & Transite	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-downwind bld. 32 transite	120	9.9	1188	7	100	<0.003
2	High Volume pump-downwind bld. 4 window caulk	120	9.9	1188	3	100	<0.003
3	Personnel-Lemmon Young 594 05 6847-bld 32	30	2.0	60	8	100	0.065
4	Personnel pump-Samuel Johnson 594 05 6847 bld 4	30	2.0	60	4	100	<0.065
5	Personnel pump-Lemmon Young bld 32 transite	480	2.0	960	15	100	0.008
6	Personnel pump-Samuel Johnson bld 4 window caulk	480	2.0	960	9	100	0.005
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
S. Mike Witt		Zach Knight

Comments: bld. 32 transite panels/bld.4 window with caulk and window frames with caulk & window transite

M.F.A.= 0.00785

C/C

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
-X- Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
___ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17168	Date:	April 15th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 14th 1998
Analyst:	Mike Witt	NIOSH Lab ID:33570-001	

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	bld. 33- transite panels/bld. 4 window caulk & Transite	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-downwind bld. 33 transite	120	9.9	1188	6	100	<0.003
2	High Volume pump-downwind bld. 4 window caulk	120	9.9	1188	5	100	<0.003
3	Personnel-Lemmon Young 594 05 6847-bld 33	30	2.0	60	8	100	0.065
4	Personnel pump-Samuel Johnson 594 05 6847 bld 4	30	2.0	60	4	100	<0.065
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
for mike witt		zack knight

Comments: bld. 33- transite panels/bld.4 window with caulk and window frames with caulk & window transite

M.F.A.= 0.00785

c/c

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
__ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17181	Date:	April 18th 1998
Collected by:	Mike Witt	Date Collected:	April 18th 1998
Analyst:	Mike Witt	NIOSH Lab ID:33570-001	

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	Building one room 103-floortile & Mastic abatement	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-Decon room 103	120	9.9	1188	6	100	<0.003
2	High Volume pump-Air Exhaust room 103	120	9.9	1188	1	100	<0.003
3	High Volume pump-Barriers room 103	120	9.9	1188	3	100	<0.003
4	Personnel-Henry Spinks 264 96 8356 room 103	30	2.0	60	5	100	<0.065
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
for Mike Witt	[signature]	Zach Knight

Comments: wet removal-negative air-full containment-Decon

M.F.A.= 0.00785

c/c

RESPIRATORY PROTECTION SCHEDULE

Project Name PALMETTO HIGH SCHOOL

Location Palmetto, Florida

Date 4/15/98 & 4/16/98 Work Area Building #33-Transite Panels
Building #3 and #2-Floortile & Mastic

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Livingston Date 4/16/98.

Name Debbie K. Livingston
(Please Print or Type)

Title President

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
— Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17171	Date:	April 15th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 15th 1998
Analyst:	Mike Witt	NIOSH Lab ID:	33570-001

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	bld. 33- transite panels/bld. bld. 3-floortile & Mastic	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-downwind bld. 33 transite	120	9.9	1188	9	100	0.004
2	Personnel-Lemmon Young 594 05 6847-Bld 33	30	2.0	60	5	100	<0.065
3	High Volume-Decon room 301	120	9.9	1188	2	100	<0.003
4	High Volume-Air Exhaust room 301	120	9.9	1188	0	100	<0.003
5	High Volume-Barriers room 301	120	9.9	1188	3	100	<0.003
6	Personnel-Henry Spink 264 96 8356-Room 301	30	2.0	60	2	100	<0.065
7	High Volume-Decon room 303	120	9.9	1188	6	100	<0.003
8	High Volume-Air Exhaust room 303	120	9.9	1188	0	100	<0.003
9	High Volume-barriers room 303	120	9.9	1188	4	100	<0.003
10	Personnel-Henry Spinks 264 96 8356 room 303	30	2.0	60	3	100	<0.065

*Negative Exposure/All Removal Done in ½ Face Respirators

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
E. Mike Witt	[signature]	Zach Knight

Comments: bld. 33- transite panels/bld.3 rooms 301 and 303 floortile and mastic

M.F.A.= 0.00785

C/C

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
__ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17176	Date:	April 16th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 16th 1998
Analyst:	Mike Witt	NIOSH Lab ID:33570-001	

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	bld. 33- transite panels/bld. bld. 2-floortile & Mastic	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-Decon building 2-room 202	120	9.9	1188	5	100	<0.003
2	High Volume pump-Air Exhaust building 2-room 202	120	9.9	1188	1	100	<0.003
3	High Volume-Barriers building 2-room 202	120	9.9	1188	6	100	<0.003
4	Personnel Henry Spinks 264 96 8356-bld-2-room 202	30	2.0	60	2	100	<0.065
5	High Volume-Decon Bld 2 room 201	120	9.9	1188	7	100	<0.003
6	High Volume-Air Exhaust room 201	120	9.9	1188	3	100	<0.003
7	High Volume-Barriers room 201	120	9.9	1188	3	100	<0.003
8	Personnel-Henry Spinks bld 2 room 201	30	2.0	60	2	100	<0.065
9	High Volume-barriers room 303	120	9.9	1188	4	100	<0.003
10	Personnel-Henry Spinks 264 96 8356 room 303	30	2.0	60	3	100	<0.065

*Negative Exposure/All Removal Done in ½ Face Respirators

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
Lt. Mike Witt		rock knight

Comments: bld. 33- transite panels/bld.2 rooms 201 and 202- floortile and mastic

M.F.A.= 0.00785

c/c

RESPIRATORY PROTECTION SCHEDULE

Project Name PALMETTO HIGH SCHOOL

Location Palmetto, Florida

Date 4/17, 4/18, 4/20/98 Work Area Building #1, Rm.102-Bldg. #2, Rm. 203 Building #1, Rm.103; Bldg. #1, Rm.105,102, 103,104

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K. Leyton Date 4/20/98.

Name Debbie K. Livingston
(Please Print or Type)

Title President

APOLLO ENVIRONMENTAL, INC.

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

AIR SAMPLE ANALYSIS

Client:	Architect
Project:	Palmetto High School

Test Method
-X- Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
___ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17180	Date:	April 17th 1998
Collected by:	Apollo Mike Witt	Date Collected:	April 17th 1998
Analyst:	Mike Witt	NIOSH Lab ID:33570-001	

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	Floortile & Mastic bld. 1 rm102-bld.2 rm 203	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-Decon building 2-room 203	120	9.9	1188	3	100	<0.003
2	High Volume pump-Air Exhaust building 2-room 203	120	9.9	1188	0	100	<0.003
3	High Volume-Barriers building 2-room 203	120	9.9	1188	4	100	<0.003
4	Personnel Henry Spinks 264 96 8356-bld-2-room 203	30	2.0	60	4	100	<0.065
5	High Volume-Decon Bld 1 room 102	120	9.9	1188	5	100	<0.003
6	High Volume-Air Exhaust room 102	120	9.9	1188	1	100	<0.003
7	High Volume-Barriers room 102	120	9.9	1188	3	100	<0.003
8	Personnel-Henry Spinks bld 1 room 102	30	2.0	60	7	100	<0.065
	*Negative Exposure/All Removal Done in ½ Face Respirators						

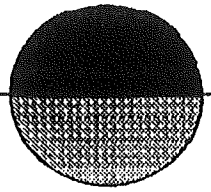
Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
Dr. Mike Witt		Zach Knight

Comments: Bld. 2 room 203---bld.1 room 102 floortile and mastic abatement
Bld.2 room 203----Bld.1 room102

M.F.A.= 0.00785

c/c

APOLLO ENVIRONMENTAL, INC.



AIR SAMPLE ANALYSIS

11553 U.S. Highway 41 South
Telephone (813) 671-3999
FAX: 677-3422

Client:	Architect
Project:	Palmetto High School

Test Method
X Quantitative analysis of airborne samples by NIOSH 7400 or OSHA reference method.
__ Quantitative & qualitative analysis of airborne samples by T.E.M.

Lab ID:	AD- 17186	Date:	April 20th 1998
Collected by:	Mike Witt	Date Collected:	April 20th 1998
Analyst:	Mike Witt	NIOSH Lab ID:33570-001	

#	Sample Collection Information	Time (min)	Flow Rate	Volume (liters)	Fiber Count	Field Count	Conc. (f/cc)
-	Bld. One-rm 105 floortile&Mastic/102,103,104 Mastic	---	---	----	---	---	----
A	Field Blank	---	---	----	0	100	----
B	Field Blank	---	---	----	0	100	----
1	High Volume pump-Decon room 105	120	9.9	1188	6	100	<0.003
2	High Volume pump-Air Exhaust room 105	120	9.9	1188	4	100	<0.003
3	High Volume pump-Barriers room 105	120	9.9	1188	3	100	<0.003
4	Personnel-Henry Spinks 264 96 8356 room 105	30	2.0	60	4	100	<0.065
	*Negative Exposure/All Removal Done in ½ Face Respirators						

Apollo Rep Sig:	Contractor Rep Sig:	Contractor Rep (Print)
F. Mike Witt	[signature]	Zach Knight

Comments: wet removal-negative air-full containment-Decon

M.F.A.= 0.00785

c/c

RESPIRATORY PROTECTION SCHEDULE

Project Name UNIVERSITY HOSPITAL

Location Pensacola, FL

Date 5/19/98 Work Area

Based upon airborne asbestos-fiber concentrations encountered on previous projects of similar type working on materials similar to those found on the above referenced project, the following level of respiratory protection is proposed for the indicated operations to maintain an airborne fiber concentration below 0.01 fibers per cubic centimeter (f/cc) **inside the respirator facepiece.**

OPERATION	ANTICIPATED f/cc	RESPIRATORY PROTECTION	PROTECTION FACTOR	f/cc IN MASK
Work Area Preparation				
Removal of ACM				
Work Area Clean-Up		SEE ATTACHED		
Disposal at Landfill				

The Contractor certifies that to the best of his knowledge and belief the above represent a true and accurate representation of airborne fiber concentrations expected for the operations indicated, and are based upon airborne fiber data from past similar projects with similar materials and operations.

Contractor: AZTEC ENVIRONMENTAL, INC.

Signed by: Signature Debbie K Livingston Date 5/19/98

Name Debbie K. Livingston
(Please Print or Type)

Title President

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 1 of 5
Client Address: 2060 North Sherman Ave. Panama City, FL 32405	Report Date: 05/19/98	Report No.: 2877
Project Site: University Hospital, Pensacola, Florida	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.010.001-013	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
010001	03/18/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	480	960	30.5	100	0.003	0.02
010002	03/19/98	Floor Tile Removal	Aura Vielman, 436-73-1007 / Personnel Sample	167	334	13	100	0.008	0.02
010003	03/19/98	Floor Tile Removal	Aura Vielman, 436-73-1007 / Personnel Sample	225	450	18	100	0.006	0.02
010004	03/19/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	225	450	24	100	0.006	0.03
010005	03/24/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	235	470	36	100	0.006	0.04
010006	03/24/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	245	490	72	100	0.006	0.07
010007	03/24/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	255	510	6	100	0.005	0.01
010008	03/25/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	300	600	28	100	0.005	0.02
010009	03/25/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	280	560	58	100	0.005	0.05
010010	03/25/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	303	606	48	100	0.004	0.04
010011	03/25/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	260	520	29	100	0.005	0.03
010012	03/26/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	295	590	36	100	0.005	0.03
010013	03/26/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	280	560	10	100	0.005	<0.01

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 2 of 5
Client Address: 2060 North Sherman Ave. Panama City, FL 32405	Report Date: 05/19/98	Report No.: 2877
Project Site: University Hospital, Pensacola, Florida	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.010.014-026	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
010014	03/26/98	Mastic Removal	Miquel Medina, 591-72-5670 / Personnel Sample	285	570	16	100	0.005	0.01
010015	03/26/98	Mastic Removal	Miquel Medina, 591-72-5670 / Personnel Sample	263	526	20	100	0.005	0.02
010016	03/27/98	Cleaning	Marco Medina, 592-65-5252 / Personnel Sample	405	810	21	100	0.003	0.01
010017	03/27/98	Cleaning	Miquel Medina, 591-72-5670 / Personnel Sample	405	810	1	100	0.003	< 0.01
010018	03/30/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	230	460	2	100	0.006	< 0.01
010019	03/30/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	250	500	16	100	0.005	0.02
010020	03/30/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	225	450	35	100	0.006	0.04
010021	03/30/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	250	500	9	100	0.005	< 0.01
010022	03/31/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	251	502	N/A	N/A	0.005	*
010023	03/31/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	295	590	2	100	0.005	< 0.01
010024	03/31/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	255	510	100	61	0.005	0.16
010025	04/01/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	245	590	12	100	0.005	0.01
010026	04/01/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	310	620	21	100	0.004	0.02

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 3 of 5
Client Address: 2060 North Sherman Ave. Panama City, FL 32405	Report Date: 05/19/98	Report No.: 2877
Project Site: University Hospital, Pensacola, Florida	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.010.027-039	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
010027	04/01/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	260	520	42	100	0.005	0.04
010028	04/01/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	255	510	51	100	0.005	0.05
010029	04/02/98	Mastic Removal	Miquel Medina, 591-72-5670 / Personnel Sample	290	580	51	100	0.005	0.04
010030	04/02/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	305	610	100	84	0.004	0.10
010031	04/02/98	Mastic Removal	Miquel Medina, 591-72-5670 / Personnel Sample	210	420	100	51	0.006	0.23
010032	04/02/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	210	420	100	54	0.006	0.22
010033	04/06/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	320	640	N/A	N/A	0.004	*
010034	04/06/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	310	620	N/A	N/A	0.004	*
010035	04/07/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	390	780	100	87	0.003	0.07
010036	04/07/98	Mastic Removal	Marco Medina, 592-65-5252 / Personnel Sample	195	390	36	100	0.007	0.04
010037	04/07/98	Mastic Removal	Edwin Sarazua, 637-04-5960 / Personnel Sample	390	780	2	100	0.003	< 0.01
010038	04/07/98	Mastic Removal	Miquel Medina, 591-72-5670 / Personnel Sample	120	240	1	100	0.01	< 0.01
010039	04/08/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	280	560	66	100	0.005	0.05

psi

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 4 of 5
Client Address: 2060 North Sherman Ave. Panama City, FL 32405	Report Date: 05/19/98	Report No.: 2877
Project Site: University Hospital, Pensacola, Florida	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.010.040-052	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
010040	04/08/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	N/A	N/A	N/A	N/A	N/A	**
010041	04/08/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	300	600	99	100	0.004	0.08
010042	04/08/98	Floor Tile Removal	Miquel Medina, 591-72-5670 / Personnel Sample	270	540	N/A	N/A	0.005	Filter Damaged
010043	04/09/98	Cleaning	Marco Medina, 592-65-5252 / Personnel Sample	290	580	N/A	N/A	0.005	*
010044	04/09/98	Cleaning	Marco Medina, 592-65-5252 / Personnel Sample	255	510	56	100	0.005	0.05
010045	04/10/98	Loading Out	Marco Medina, 592-65-5252 / Personnel Sample	265	530	42	100	0.005	0.04
010046	04/22/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	195	390	81	100	0.007	0.10
010047	04/22/98	Floor Tile Removal	Edwin Sarazua, 637-04-5960 / Personnel Sample	180	360	N/A	N/A	0.007	**
010048	04/22/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	255	510	89	100	0.005	0.09
010049	04/23/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	275	550	24	100	0.005	0.02
010050	04/23/98	Floor Tile Removal	Aura Vielman, 436-73-1007 / Personnel Sample	285	570	41	100	0.005	0.04
010051	04/23/98	Floor Tile Removal	Aura Vielman, 436-73-1007 / Personnel Sample	265	530	39	100	0.005	0.04
010052	04/23/98	Floor Tile Removal	Marco Medina, 592-65-5252 / Personnel Sample	255	510	N/A	N/A	0.005	*

PHASE CONTRAST MICROSCOPY
AIR SAMPLE ANALYSIS REPORT

Client: Aztec Environmental, Inc.	Project No.: 783-7A027	Page 5 of 5
Client Address: 2060 North Sherman Ave. Panama City, FL 32405	Report Date: 05/19/98	Report No.: 2877
Project Site: University Hospital, Pensacola, Florida	Sample(s) Collected By: Client	
Contractor: N/A	Laboratory ID No.: 98A.010.053	

ID No.	Date	Activity	Sample Location and Description	Time (min)	Vol. (L)	FBS	FDS	LOD (f/cc)	Results (f/cc)
010053	04/24/98	Pipe Insulation Removal	Miquel Medina, 591-72-5670 / Personnel Sample	340	680	N/A	N/A	0.004	**

Collector: Client	Analyst: A. Richmond (001-004) J. Jernigan (005-053)

Professional Service Industries, Inc. (PSI) analysts participate in the American Industrial Hygiene Associations (AIHA) Asbestos Analysts Registry (AAR) Program. Analyses of all samples are conducted in accordance with the NIOSH 7400 Method. PSI certifies that the results are correct as presented. Calculated fibers cc results are based on volumetric data provided by the client; therefore , PSI cannot certify these results.

This report applies only to the sample(s) analyzed. The liability of the laboratory is limited to the amount paid for this report by the client. The client assumes all liability for the further distribution of this report or its contents and by making such distribution agrees to hold the laboratory harmless against all claims of persons so informed of the contents thereof.

Quality Assurance and Quality Control

Industrial Hygiene Services

Notes:
Time (min) = Duration of sample in minutes
FBS = Fibers counted
LOD (f/cc) = Limit of detection of sample in fibers per cubic centimeter of air
* = Filter overloaded with debris
Vol. (L) = Volume of sample in liters of air
FDS = Fields counted
Results (f/cc) = Sample results in fibers per cubic centimeter of air
** = Pump Fault

psi

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: March 17, 1998

Weather: rainy

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital west Leonard Street Pensacola

WORK PERFORMED

7:00 Am we went to Safety meeting
8:30 Am Start to work and Clean the area work, take out the doors and Carpet in Basement
12:00 Noon we went to Lunch
1:00 pm Came back to work and start to prep the area work with Splash guards also we did remove Some walls
Stopped the working 6:00 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 3/17/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: March 18, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital west Leonard street Personnel floor Basement

WORK PERFORMED

6:30 pm start to work Hooked up the negative air machine
8:30 start to remove floor tile 2 pm and put in double bags
12:30 we go to lunch
1:00 pm Came back to work and we did bags out and put in the empty room
2:00 Pm we start mastic remover also we did insulation pipe 4:30 pm we finish the area and moved to the another area in the Same floor B.

Miscellaneous Remarks: 5:30 pm. stopped the working

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/18/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 18, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	8:30 AM	12:30	1:00 PM	4:30 PM	7½
Marco MEDINA	8:30 AM	12:30	1:00 "	4:30 "	7½
Aura Vielman	8:30 AM	12:30	1:00 "	4:30 "	7½
Edwin Saraza	8:30 AM	12:30	1:00 "	4:30 "	7½

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Name: University Hospital

Number:

Supervisor: Ruben MEDINA

Date: march 19, 1998

Weather: Cloudy

Temperature _____ AM _____ PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital floor Basement

WORK PERFORMED Start to work at 7:00 Am we did to Continue remove the floor Tile and mastic remove ACM in the basement also we put the tile in double bags and bring and put in clean room
12:00 we went to lunch
1:00 pm Came back to work and we did remove floor tile ACM and put in double bags bring and put in some clean room
5:30 pm Stop the work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/19/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 19, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:30	12:00	1:00	5:30	8½
MARCO MEDINA	7:30	12:00	1:00	5:30	8½
Aura VIELMAN	7:30	12:00	1:00	5:30	8½
Edwin Sorazua	7:30	12:00	1:00	5:30	8½
Joe E. Roberts	7:30	12:00	1:00	5:30	8½

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: March 20, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital west Leonard Street pensacola

WORK PERFORMED

7:00 Am we did Continued Acm removal in Basement Encapsulant has be Sprayed in work area, P.S.I. Continued Air Samplins in Completed rooms 11:30 Am finish removing Acm mastic 12 we went to Lunch 1:00 pm Come back to work and Starting prep the area work in first floor Stop work 4:30 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/20/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 20 1990

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel Medina	7:15	11:00	←	←	3 3/4
Marco Medina	7:15	11:00	←	←	3 3/4
Aura Velmon	7:15	11:45	←	←	4 1/2
Edwin Saraza	7:15	11:45	←	←	4 1/2

Sherman Ave., Panama City, FL 32405
(904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: UNIVERSITY Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: March 21, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks UNIVERSITY HOSPITAL west Leonard STreet pensacola First floor

WORK PERFORMED

7:00 AM Continued preping the work area in First floor
12:00 We go to lunch
12:30 Came back to work and we still prepping the work area
Stop Working 5:30
Supervisor 1 Workers 5
Hours 10

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 3/21/98 Signed: Ruben Medina

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TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Name: University Hospital

Number:

Supervisor: Ruben Medina

Date: March 23, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital 1, 2, 3 floors

WORK PERFORMED

7:00 A.m we start to work and finished the prep, Hooked up the micro Traps and take out the carpet in 2 floor

12:00 we go to lunch

12:30 Come back to work and take out the carpet in 3 floor

4:00 Pm back to first floor and Hooked heater water also we did inspection inside of building Chec all Containment

Stop working 5:30 Pm

Miscellaneous Remarks: Supervisor, workers 5 hours 10

February, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 3/23/98 Signed: Ruben Medina

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TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Name: University Hospital

Job Number:

Supervisor: Ruben Medina

Date: march 24, 1998

Weather: Clear

Temperature _____ AM _____ PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks university Hospital first floor

WORK PERFORMED

7:00 Am Started to removing ACM floor tile in first floor P.S.I started air samplins of 30 min. in work area
12:00 we went to lunch
12:30 Continued ACM removal the floor tile and to bag it
Stop work 5:30
Supervisor 1 workers 5
Hour 10

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/24/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 24 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	12:30 PM	5:30	10
Marco MEDINA	7:00 AM	12:00	12:30 "	5:30	10
Aura Vielman	7:00 AM	12:00	12:30 "	5:30	10
EDWin Saravia	7:00 AM	12:00	12:30 "	5:30	10
Rosa Vielman	7:00 AM	12:00	12:30 "	5:30	10

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Name: University Hospital

Job Number:

Supervisor: Ruben MEDINA

Date: march 25, 1998

Weather: Clear

Temperature _____ AM _____ PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor.

WORK PERFORMED

7:00 AM Continued Acm removal in first flor and baged
12:00 we went to lunch
12:30 Came back to work and still baged
also we did MASTIC remove in some rooms
Stop work 5:30

Supervisor 1 workers 5

Miscellaneous Remarks: Hours 10

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/25/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 25, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Marco MEDINA	7:00 Am	12:00	12:30	5:30	10.
Miguel MEDINA	7:00 AM	12:00	12:30	5:30	10
Aura VIELman	7:00 pm	12:00	12:30	5:30	10
Rosa VIELman	7:00 Am	12:00	12:30	5:30	10
EDWin Saraeua	7:00 Am	12:00	12:30	5:30	10
Ruben Medina	9:00 Am	10:00	1:00	2:30	2½

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

b ne: University Hospital

b Number:

pervisor: Ruben MEDINA

Date: March 27, 1998

Weather:

Temperature AM PM

ty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

ORK PERFORMED

7:00 Start to work and continued ACM removal in first floor also we did double bag and load out and encapsulant has be sprayed in work area
12:30 we went to lunch
1:00 Came back to work and start to prep the work area in second floor
5.30 stop work. Supervisor 1 Workers 5
Hours 10

iscellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/27/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospita

Date: March 26, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00	12:00	12:30	5:30	10.
Marco MEDINA	7:00	12:00	12:30	5:30	10
Aura VIELMAN	7:00	12:00	12:30	5:30	10
Rosa VIELMAN	7:00	12:00	12:30	5:30	10
EDwin Saravia	7:00	12:00	12:30	5:30	10
Ruben MEDINA	10:00	10:45	1:00 PM	3:30	3¼

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number:

Supervisor: Ruben MEDINA

Date: March 26, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First floor

WORK PERFORMED

7:00 AM start to work and put in double bag the floor tile and load out, put in the dumpster
9:00 AM Continued A&M removal in first floor
12:00 we take Lunch
12:30 Came back to work and Continued with A&M removal 5:30 Stop work
Supervisor: Workers
Hours 10

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/26/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 27, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00	12:30	1:00	5:30	10
Marco MEDINA	7:00	12:30	1:00	5:30	10
Aura VIELMAN	7:00	12:30	1:00	5:30	10
Rosa VIELMAN	7:00	12:30	1:00	5:30	10
Edwin Saravia	7:00	12:30	1:00	5:30	10

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: 3/28/98

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

Started prepping the work area in second floor. Hooked up the negative air machine in work area. Finish the prepping & ready to remove.

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/28/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

b Name: University Hospital

b Number:

pervisor: Ruben Medina

Date: 3/30/98

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

We started removal ACM floor tile in second floor + bagging it.

Miscellaneous Remarks:

February, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/30/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 30, 1998
monday

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	8:00 Am	12:00	12:30	5:30 Pm	9
Mario MEDINA	8:00	12:00	12:30	5:30 "	9
Aura JIELMAN	8:00	12:00	12:30	5:30 "	9
Rosa JIELMAN	8:00	12:00	12:30	5:30 "	9
EDWin Saravia	8:00	12:00	12:30	5:30 "	9
Ligia Salazar	8:00 Am	12:00	12:30	5:30 Pm	9

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number:

Supervisor: Ruben Medina

Date: 3/31/98

Weather:

Temperature AM PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

Continued to remove ACM floor tile in second floor and bagging it. Also PSI did air samplings in work area.

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 3/31/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: March 31, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12.00	12.30	5:30 PM	10.
MARCO MEDINA	7:00 "	12.00	12.30	5:30 "	10
Aura VIELMAN	7:00 "	12.00	12.30	5:30 "	10
ROSA VIELMAN	7:00 "	12.00	12.30	5:30	10
Lilia Salazar	7:00 "	12.00	12.30	5:30	10
EDWIN Saravia	7:00 "	12.00	12.30	5:30	10
Ruben Medina	10.45 Am.	11.45	2.00	3:30	2½

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: 4/1/98

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

Continued AC M removal floor tile in second floor and bagging it. We loaded out and started mastic removal.

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/1/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital
Date: April 15 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 Am	12:00	12:30	5:30	10
Marco MEDINA	7:00 "	12:00	12:30	5:30	10
Aura Vielman	7:00 "	12:00	12:30	5:30	10
Rosa Vielman	7:00 "	12:00	12:30	5:30	10
Lijia Salazar	7:00 "	12:00	12:30	5:30	10
EDwin Saravia	7:00 Am	12:00	12:30	5:30	10
Ruben MEDINA			3:30	5:30	2

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: 4/2/98

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

Continued ACM removal in second floor.

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/2/08

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: April 2, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Ruben Medina	7:30 a.m.	9:00 a.m.	1:00	2:30 PM	3
Miguel MEDINA	7:00 AM	12:00	12:30	5:30 "	10
Mario MEDINA	7:00 "	12:00	12:30	5:30 "	10
Laura JIELMAN	7:00 "	12:00	12:30	5:30 "	10
Rosa JIELMAN	7:00 "	12:00	12:30	5:30 "	10
Lilia Salazar	7:00 "	12:00	12:30	5:30 "	10
Edwin Sarazua	7:00 AM	12:00	12:30	5:30 PM	10

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 4, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
2, 4 floor

ORK PERFORMED

7:00 AM Start to work, and pull out the micro traps, break down the Containment in Second floor also we did take out the carpet in 4 floor and start to prep
1:00 PM we went to lunch
1:30 Came back to work and Continued Prepping the work area in 4 floor
5:30 pm stop working

scellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 4/4/98 **Signed:** Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 6, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
4 floor

RK PERFORMED

7:00 Am Continued to prep in 4 floor the area work Hooked the micro traps and Seal all hole be in the floor with cement

12:00 we take lunch

12:30 Pm Start to remove Asm floor tile and bag it

5:30 stop work

scellaneous Remarks:

ecretary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.	↓	
4. Look for Leaks in outside Containment.	↓	
5. Do inside Smoke Test on every shift.	↓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	↓	
2. De-Con clean (No Trash or leaking water).	↓	
3. Suits, hoods, boots, filters available for after lunch.	↓	
4. Visual inspection of outside of building or work area.	↓	
5. Check protective clothing for tears.	↓	
LUNCH		
1. Filters changed on respirators if needed.	↓	
2. Batteries changed or on charge.	↓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/16/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital
Date: April 6, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Ruben Medina	3:00 p.m.	5:00 p.m.	—	—	2
Miguel MEDINA	12:30 Pm	5:30	—	—	5
Mario MEDINA	12:30 "	5:30	—	—	5
Aura Vielman	12:30 "	5:30	—	—	5
Edwin Saracua	12:30 "	5:30	—	—	5
Lijia Salazar	12:30 "	5:30	—	—	5

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 7, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
4 floor

RK PERFORMED

7:00 am Continued to remove ACM floor Tile in 4 floor and bag it
12:00 take Lunch
12:30 Came back and we went to Safety meeting
1:30 pm Continued removing ACM in 4 floor also we did start to remove pipe insulation
5:30 stop work

cellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/7/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: April 7, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	1:30	5:30	9
Marco MEDINA	7:00 AM	12:00	1:30	5:30	9
Avira VIELMAN	7:00 AM	12:00	1:30	5:30	9
Edwin Saravia	7:00 AM	12:00	1:30	5:30	9
Arjia Salazar	7:00 AM	12:00	1:30	5:30	9
J. Jernegan	7:10	7:20	—	—	10min.

Form S-14

DAILY JOB REPORT

) ..ne: University Hospital

) Number:

pervisor: Ruben MEDINA

Date: April 8, 1998

Weather:

Temperature AM PM

y Materials Ordered | Materials Received

Sub-contractors (Name) | Work Performed

Visitors to Site/Remarks University Hospital

ORK PERFORMED

7:00 am. Continued to remove pipe insulation and bag it
12 went to lunch
12:30 Came back and Continued removing pipe insulation and bag it
stop work 5:30

iscellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/8/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: April 8, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	12 30	5:30 PM	10
Mario MEDINA	7:00 "	12:00	12:30	5:30 PM	10
Aura Vielman	7:00 "	12:00	12:30	5:30 PM	10
Ruben Medina	9:30	11:30	1:00	3:00 pm	4
Lyia Salazar	7:00 "	12:00	12:30	5:30 PM	10
EDwin Saravia	7:00 "	12:00	12:30	5:30 PM	10

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 9, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
4 floor

ORK PERFORMED

7:00 AM start to work and finish remove the pipe insulation, Loadout / Dumpster
12:00 we take Lunch
12:30 back to work and Continued with doble bag also start mastic remove
5:30 stop the work

scellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/9/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: April 9, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Manuel MEDINA	7:00 AM	12:00	12:30	5:30 PM	10
Marco MEDINA	7:00 AM	12:00	12:30	5:30 "	10
Aura VILLAMAR	7:00 "	12:00	12:30	5:30 "	10
Ruben Medina	2:30 p.m	4:00 pm.	—	—	1½
Lilia Salazar	7:00 "	12:00	12:30	5:30 "	10
Edwin Saravia	7:00 AM	12:00	12:30	5:30 PM	10

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 10, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
4 floor

RK PERFORMED

7:00 AM start to work and we finished removing pipe insulation, loadout and mastic re-move also we Spray INCapsulant IN all work area

Stop work 1:00 Pm

scellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.	✓	
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/10/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: April 10, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	1:00 Pm	—	—	6
Marco MEDINA	7:00 "	1:00 "	—	—	6
Aura Vielman	7:00 "	1:00 "	—	—	6
Edwin Sarazuo	7:00 "	1:00 "	—	—	6
Lijia Salazar	7:00 "	1:00 "	—	—	6

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: April 20, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital 4 and 3 floor

WORK PERFORMED

7:00 Am Started to prep the work ~~one~~ in 3rd floor also we did remove pipe insulation 12:00 we take lunch 1:30 came back to work break down the Containment in 4th floor and move the micro traps to 3rd floor / Continued Prep. Stop work 6:00 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/20/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University ~~Hospital~~

DATE: 4/20/98

		LUNCH			
NAME	**IN**	**OUT**	**BACK**	**OUT**	**TOTAL**
Ruben Medina	7:00	12:00	—	—	5
marco medina	7:00	12:00	—	—	5
Auria Vielman	7:00	12:00	—	—	5
Lija Salazar	7:00	12:00	—	—	5
Edwin Sarazua	7:00	12:00	—	—	5
miguel medina	7:00	12:00	—	—	5

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 21, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
Penthouse

ORK PERFORMED

7:00 Am start to remove ACm pipe with glove bag in penthouse
12:00 we take lunch
17:30 came back to finish remove glove bag pipe and loadout
also we did finish OF prep the work area in 3 floor
Stop work 6:00 Pm

scellaneous Remarks:

ebruary, 1992

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/21/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital Pent House

DATE: April 21, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	9:00 Am	12:00	12:30	3:30 Pm	6
MARCO MEDINA	9:00 "	12:00	12:30	3:30 "	6
Edwin Sarazua	9:00 "	12:00	12:30	3:30 "	6
Aura Uhlmann	9:00 "	12:00	12:30	3:30 "	6
Lijia Salazar	9:00 "	12:00	12:30	3:30 "	6

Form S-14

DAILY JOB REPORT

e: University Hospital

Number:

ervisor: Ruben MEDINA

Date: April 22, 1998

Weather:

Temperature AM PM

Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
3 Floor

RK PERFORMED

7:00 to 730 Am we went to the safety meeting. After the meeting we started to removing the acm floor tile in third floor an bag it
12:00 we take lunch
12 30 we came back and Continued removing tile and bag it
Stop the work 6.00 pm

scellaneous Remarks:

ebruary, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/22/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: April 22, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Marco Medina	9:00	12:00	12:30	6:00 Pm	8½
Auro Vielman	9:00	12:00	12:30	6:00 Pm	8½
Ligia Salazar	9:00	12:00	12:30	6:00 Pm	8½
Edwin Sarazua	9:00	12:00	12:30	6:00 Pm	8½
Miguel Medina	9:00	12:00	12:30	6:00 Pm	8½
Ruben Medina	11:00	12:00	12:30	6:00 Pm	6½

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: April 23, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Third Floor

WORK PERFORMED

7:00 Am Start to work and finished to remove the floor tile and bag it
150 Bags went To Santa rosa landfill
12:00 we Take Lunch
12:30 Come back and we did finish to remove Acm pipe, Loadout all bags and put in the Truc
Stop work 6:00 Pm

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/23/98 **Signed:** Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: April 23, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	9:45	12:30	6:00	8¼
Marco MEDINA	7:00 "	12:00	12:30	6:00	10½
Aura VIKLMAN	7:00 "	12:00	12:30	6:00	10½
Luis Salazar	7:00 "	12:00	12:30	6:00	10½
EDWin Saravia	7:00 "	12:00	12:30	6:00	10½
Jeremy Jerman	7:10	7:25	—	—	15 min.
Ruben Medina	7:00	9:45	3:30	5:30	4¾

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: April 24, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital
Third Floor

WORK PERFORMED

7:00 Am we start to do mastic remover
12:00 we take lunch
12:30 Came back and we did finish mastic remove also we did spray encapsulant in all work area
Stop work 6:00pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 4/24/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: April 24 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel Medina	7:00	12:00	12:30	6:00 Pm	10½
Marco Medina	7:00	12:00	12:30	6:00 Pm	10½
Aora Vierman	7:00	12:00	12:30	6:00 "	10½
Lisia Salazar	7:00	12:00	12:30	6:00 "	10½
Edwin Saravaga	7:00	12:00	12:30	6:00 "	10½
Jeremy Serrano	7:00	7:15	—	—	15min.
Ruben MEDINA	7:15	9:00	12:30	3:00	4¼

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 1, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Third Floor Pensacola Fl.

WORK PERFORMED

2:00 Pm we start to clean the third floor and close the holes

Stop work 6 Pm

Miscellaneous Remarks:

February, 1992

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 5/1/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: MAY 2, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital third floor

WORK PERFORMED

7:00 am start to work Clean the Floor and Seal holes stop work 12:00

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 5/2/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: May 4, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks university Hospital 2, 3, 4 Floor

WORK PERFORMED

7:00 Am Start to clean the work area in 3th floor, Seal all holes in 4th and 3th floor, Cover Item pipe with plastic and Store in Cold room
12:00 we take lunch
1:00 Pm Came back and we did glove bag Cut the pipe, Cover with plastic and 2nd floor also we did glove bag in 4th floor and storege in cold room
6:00 Pm Stop the work

Miscellaneous Remarks: _____

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/4/98 **Signed:** Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: May 4, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Mateo MEDINA	7:00 Am	12:00	1:00 Pm	6:00 Pm	10
Miguel MEDINA	7:00 "	12:00	1:00 Pm	6:00 "	10
Sara VIELMAN	7:00 "	12:00	1:00 "	6:00 "	10
Lijia Salazar	7:00 "	12:00	1:00 "	6:00 "	10
Edwin Saravia	7:00 Am	12:00	1:00 "	6:00 "	10
Ruben MEDINA	7:30 Am	12:00	1:00 "	6:00 Pm	10

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 9, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

1:00 p.m. Came back from lunch & did work on 3rd floor; cleaned the work area, to add holes and sprayed encapsulant in all areas. Also we did bag out and put all equipment in cool room.

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/9/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University hospital

Date: May 9, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Edwin Saratua	1:00	5:30	←		4½
Marco Medina	1:00 pm	5:30 pm	←		4½
Miguel Medina	1:00 "	5:30 "	←		4½

2060 No. Sherman Ave., Panama City, FL 32405
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Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: May 21, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Pent House 4th, 3d and second floors

WORK PERFORMED 7:00 AM we start to hang up glove bags and remove Asm pipe in Pent house, 4th Floors
12:00 we take Lunch
1:00 Pm Came back to Continued hang up glove bags and remove Asm pipe in third and second Floors also we put all bags in the Truck 6:00 Pm we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓✓✓	
3. Hoses hooked up and De-Con in Order.	✓✓	
4. Look for Leaks in outside Containment.	✓✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓✓	
2. De-Con clean (No trash or water).	✓✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓✓	
5. Check Protective Clothing for Tears.	✓✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/21/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: May 21, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Aura Vielman	7:00	12:00	1:00	6:00	10
Miguel Medina	7:00	12:00	1:00	6:00	10
EDwin Sorazua	7:00	12:00	1:00	6:00	10

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 22, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First floor

WORK PERFORMED 7:00 am we start to hang up glove bags in first floor
12:00 we take lunch
1:00 pm Came back to Continued hang up glove bags in first floor
6:00pm stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 5/22/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: May 23, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First Floor

WORK PERFORMED 7:00 Am we start to remove and to cut Acm pipe and cover with 6 ml poly 12:00 we take lunch 1:00 pm we come back to finish remove, cut and cover the pipe with plastic and put in the Truck we stop of work 6:00 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/23/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: MAY 23, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	7:00 Am	12:00	1:00 Pm	5:30	9½
Marco MEDINA	7:00 "	12:00	1:00 "	5:30	9½
Ruben MEDINA	7:00 "	12:00	1:00 "	5:30	9½
Aura VIELMAN	7:00 "	12:00	1:00 "	5:30	9½
Edwin Sarazua	7:00 Am	12:00	1:00 Pm	5:30	9½

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 24, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital basement

WORK PERFORMED 7:00 pm we start to hang up glove bags and remove Acm pipe
12:00 we take lunch
1:00 pm come back to Continued hang up glove bags removal Acm pipe and put all bags in the Truck
6:00 pm stop of work

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	—	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/24/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: MAY 24, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	1:00 PM	6:00	10
Mario MEDINA	7:00 "	12:00	1:00 "	6:00	10
Aura VIELMAN	7:00 "	12:00	1:00 "	6:00	10
Ruben MEDINA	7:00 AM	12:00	1:00 "	6:00	10
Lijia Solazar	7:00 AM	12:00	1:00	6:00	10

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Taben Medina

Date: MAY 05, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital basement

WORK PERFORMED 7:00 Am we Continued hang up glove bags and remove Acm pipe
12:00 we take Lunch
1:00 Pm we Come back to Continued hang glove bags remove Acm pipe and put all bag in the truck.
6:00Pm Stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/25/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: May 25, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel Medina	7:00 am	12:00	1:00	6:00	10
Marco Medina	7:00 am	12:00	1:00	6:00	10
Aura Vikman	7:00 am	12:00	1:00	6:00	10
Ruben Medina	7:00 am	12:00	1:00	6:00	10
Lijia Salazar	7:00 am	12:00	1:00	6:00	10

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 26, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital basement

WORK PERFORMED 7:00 Am we Continued hang up glove bags and remove Acm pipe in basement
12:00 we Take lunch
1:00 Pm we Come back To Continued hang up glove bags and romove Acm pipe and put all bags in Cool room
Stop OF work 6:00 Pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/26/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: May 26, 1998

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	1:00 PM	5:30	9½
Marco MEDINA	7:00 "	12:00	1:00 "	5:30	9½
Ana Vic Iman	7:00 "	12:00	1:00 "	5:30	9½
Lijia Salazar	7:00 "	12:00	1:00 "	5 30	9½
Ruben MEDINA	7:00 Am	12:00	1:00 Pm	5 30	9½

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: May 27, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital basement and First floor

WORK PERFORMED 7:00 Am we start to work and we did mastic remove in first floor small room and continued remove Aem pipe in basement
12:00 we take lunch
1:00 Pm Come back to finish remove Aem pipe in basement and start to prep small area in first floor
6:00pm we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/27/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: MAY 27, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel MEDINA	7:00 AM	12:00	1:00	3:00	7
MARCO MEDINA	7:00 "	12:00	1:00	3:00	7
Aura Wikiman	7:00 "	12:00	1:00	3:00	7
Lilia Salazar	7:00 "	12:00	1:00	3:00	7
Tzuber Medina	7:00 AM	12:00	1:00	3:00	7

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: May 28, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First and 4th floors

WORK PERFORMED 7:00 Am start to work and we did Finish To prep the work area Hook up the micro Traps and start To remove Acm floor Tile bag it and loadout also miguel went to Santa rosa Land Fill
12:00 we take lunch
12:30 we Come back and we did Finish mastic remove Spray encapsulant in the work area and start To Clean the Windows in 4th floor
6:00 pm Stop of work

Miscellaneous Remarks: _____

AZTEC

ENVIRONMENTAL, INC.

Job: University

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/28/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: MAY 28, 1995

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
miguel MEDINA	10:30	12:00	12:30	1:45	2¾
Ruben Medina	8:30	12:00	12:30	1:45	4¾
Marco Medina	8:30	12:00	12:30	1:45	4¾
Laura Vielman	8:30	12:00	12:30	1:45	4¾
Ligia Salazar	8:30	12:00	12:30	1:45	4¾

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: MAY 29, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital 3d and Second Floors

WORK PERFORMED 7:00 Am we start to work and continued Clean the windows in third and second floor
12:00 we take lunch
1:00 pm Came back to finish Clean the windows in second floor and start to pull Carpet in first floor
Stop work 6:00 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 5/29/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC ENVIRONMENTAL INC.

VISITOR AND EXPOSURE LOG

JOB: University Hospital 3 and 2 floors

DATE: May 29, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
miguel medina	7:00 Am	12:00	1:00 Pm	3:00 Pm	7
marco medina	7:00 "	12:00	1:00 "	3:00 "	7
Laura Vielman	7:00 "	12:00	1:00 "	3:00 "	7
Ligia Salazar	7:00 "	12:00	1:00 Pm	3:00 "	7

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: MAY 30, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

WORK PERFORMED 7:00 Am we start to work and we did finish pull out the Carpet and start to prep the work area
12:00 we take lunch
12:30 we came back to Continued prepping the work area. in first floor
6:30 Pm we stop of work

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 5/30/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: MAY 31, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First floor

WORK PERFORMED 7:00 Am we start To work and Continued Prepping the work area in First Floor
12:00 we Take lunch
12:30 Came back TO Continued Prep. the work area in first floor and make the decon

6:30 Pm we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 5/31/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: 6-1-1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first Floor

WORK PERFORMED 7:00 AM we start to work and we continued Prepping the work area in first Floor
12:00 we take Lunch
12:30 Come back and still Preping in first Floor and load out the Panel windows
6:30 we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 6/1/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben medina

Date: 6-2-1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

WORK PERFORMED 7:00 Am start to work and we did finish of prep the work area Hook up micro Traps and start To remove Asm floor Tile and bag it
12:00 we take lunch
1:00 Pm Come back to Continued removing Asm tile and bag it in first floor also we did load up panel windows 7:00 Pm stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 6/2/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: 6-2-1998

		LUNCH			
NAME	**IN**	**OUT**	**BACK**	**OUT**	**TOTAL**
Miguel MEDINA	10:00 AM	12:00	1:00	6:00	7
MARCO MEDINA	10:00	12:00	1:00	6:00	7
Ruben MEDINA	10:00	12:00	1:00	6:00	7
Aura VIELMAN	10:00	12:00	1:00	6:00	7
Lijia Salazar	10:00	12:00	1:00	6:00	7
Efrain Trejo	10:00	12:00	1:00	6:00	7
MARSIAL Trejo	10:00	12:00	1:00	6:00	7

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: 6-3-98

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

WORK PERFORMED 7:00 Am we start To work and continued removing Acm floor Tile and bag it also we did remove Acm pipe
12:00 we Take lunch
1:00 P.m. Came back To Finish removing and bag it floor Tile and start To loadout
8:00 pm stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 6/3/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: 6-3-1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Miguel Medina	7:00 AM	12:00	1:30 PM	7:00	10½
Marco Medina	7:00 AM	12:00	1:30 "	7:00	10½
Aura Villman	7:00 AM	12:00	1:00 "	7:00	11
Lijia Salazar	7:00 AM	12:00	1:00 "	7:00	11
Ruben Medina	7:00 AM	12:00	1:00 "	7:00	11
Efrain Trejo	7:00 AM	12:00	1:30 "	7:00	10½
Marisol Trejo	7:00 AM	12:00	1:30 PM	7:00	10½

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 4, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First Floor

WORK PERFORMED 7:00 Am we start To work and we did start To mastic remover also miguel went to Santa Rosa land fill
12:00 we Take lunch
1:00 Pm Came back To Continued mastic remover and we did loadout all bags and put in The Truck

7:00Pm we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 6/4/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: 6-4-98

		LUNCH			
NAME	IN	OUT	BACK	OUT	TOTAL
Marco Medina	7:00 AM	12:00	1:00 Pm	6:00	10
Aura Vielman	7:00 AM	12:00	1:00 "	6:00	10
Lijia Salazar	7:00 AM	12:00	1:00 "	6:00	10
Miguel Medina	7:00 AM	10:00 AM	1:00 "	6:00	10
Ruben Medina	7:00 "	12:00	1:00 "	6:00	10
Efrain Trejo	7:00 "	12:00	1:00 "	6:00	10
Marsial Trejo	7:00 "	12:00	1:00 Pm	6:00	10

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: June 5, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First on 3rd floor

WORK PERFORMED 7:00 A.m. we start to work and we Continued with mastic remover in First floor
12:00 we Take lunch
1:00 pm Come back TO Finish mastic remover
also we sprayed encapsulant in all area work
and start to remove non Acm Tile in 3rd floor
break down 2 Canopy in Front in of First
floor

we stop of work 8:00 pm

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 6/5/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL, INC.

VISITOR AND EXPOSURE LOG

Job: University Hospital

Date: June 5, 1998

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Marco Medina	7:00	12:00	1:00	3:00	7
Aura Vikiman	7:00	12:00	1:00	3:00	7
Lijia Salazar	7:00	12:00	1:00	3:00	7
Efrain Trejo	7:00	12:00	1:00	3:00	7
Marsial Trejo	7:00	12:00	1:00	3:00	7
Miguel Medina	7:00	12:00	1:00	3:00	7
Tzuben Medina	7:00	12:00	1:00	3:00	7

2060 No. Sherman Ave., Panama City, FL 32405
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Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 6, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital 3rd and 2nd First Floor

WORK PERFORMED 7:00 Am we start to work and we continued remove non Asm Floor Tile in 3rd floor and pull out 2 Canopy dead in Front Entrances of the First floor,
12:00 we Take Lunch
1:00 pm Came back to finish remove no asbestos Floor Tile, 2 Canopy dead and load up all recycle steel in the dumpster also we did load equipment in the Trailer

6:00 Pm Stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/6/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: 6/11/98

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks

WORK PERFORMED

At University Hospital we did load up all carpet in the dumpster. Remove insulation pipe & load out all equipment in the truck.

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	✓	
3. Hoses hooked up and De-Con in Order.	✓	
4. Look for Leaks in outside Containment.	✓	
5. Do inside Smoke Test on every shift.	✓	
MID A.M.		
1. Filters on Micro-Trap (Change if needed).	✓	
2. De-Con clean (No Trash or leaking water).	✓	
3. Suits, hoods, boots, filters available for after lunch.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check protective clothing for tears.	✓	
LUNCH		
1. Filters changed on respirators if needed.	✓	
2. Batteries changed or on charge.	✓	
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).	✓	
2. De-Con clean (No trash or water).	✓	
3. Visual inventory of suits, hoods, boots, filters.	✓	
4. Visual inspection of outside of building or work area.	✓	
5. Check Protective Clothing for Tears.	✓	
END OF DAY		
1. Micro-Trap filters (changed if needed).	✓	
2. Check all seals on Micro-Traps.	✓	
3. Check Powercords on Micro-Traps.	✓	
4. Temporary lights "OFF".	✓	
5. Inside Water ("OFF", (Drain hose if in winter).	✓	
6. Respirators cleaned and stored (count if necessary).	✓	
7. Water "OFF" to De-Con (drain hose if in winter).	✓	
8. De-Con Cleaned.	✓	
9. Building LOCKED!!!!!!!!!!	✓	
10. Trucks LOCKED (Back end to end if possible).	✓	
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.	✓	

Date: 6/11/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

AZTEC
ENVIRONMENTAL INC

VISITOR AND EXPOSURE LOG

JOB: University Hospital

DATE: 6/11/98

NAME	IN	LUNCH OUT	LUNCH BACK	OUT	TOTAL
Ruben Medina	—	—	1:00	7:30	6½
Marco Medina	—	—	1:00	7:30	6½
Ana Velman	—	—	1:00	7:30	6½
Lujia Salazar	—	—	1:00	7:30	6½
Miguel Medina	—	—	1:00	7:30	6½

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: June 12, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First floor and Court House

WORK PERFORMED 7:00 am we start to work and we did break down and clean the windows in First floor
12:00 we Take Lunch

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/2/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 15, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

WORK PERFORMED 7:00 Am we start to work in first floor break down the windows and clean also ON HOOK micro Traps and put all in the Truck
12:00 we take lunch.
12:30 we come back and we continued working in the windows
5:30 we stop of work

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/15/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben medina

Date: June 22, 1995

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital first floor

WORK PERFORMED

7:00 am we start in first floor and we did cut pipe pull out air Condition ducts
12:00 we take lunch
1:00 pm Came back To Continued Cut and pull out all metal
5:00 pm we stop OF work
workers 4 Supervisor 1 Hours 9

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.	✓	

Date: 1/22/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: June 23, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital First and Pent House

WORK PERFORMED 7:00 Am we start To work and we did finish Clean the work area in first floor and start in Pent House to Cut pipes pull out ducts
12:00 we take lunch
1:00 Pm Came back to Continued working in pent House
5:00 pm we stop OF work
workers 4 Super. 1 Hours 9

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/23/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 24, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Pent House and 4th floors

WORK PERFORMED 7:00 am we start to work in Pent H. and we continued working in pipes and ducts.
12:00 we take lunch
1:00 pm Come back to Continued to cut metal also we did load out
6:00pm we stop of work
Workers 8 Supervisor 1 Hours 10

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	↓	
12. ALL keys accounted for.		

Date: 6/24/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 25, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital 4th Floor and Pent House

WORK PERFORMED 7:00 Am we Continued working in Pent House and start to work in 4th Floor
12:00 we take Lunch
1:00 Pm Came Back to working in 4th Floor and pent House also we Load Out
5:30 we Stop of work
workers 8 Super. 1 Hours 9 1/2

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 6/25/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 26, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Pent House 4th and 3rd Floors

WORK PERFORMED 7:00 Am we continued working in Pent House and 4th Floor
12:00 we take lunch
1:00 Pm Come back to Continued working in Pent House and start in 3rd Floor
6:00 Pm we stop Of work
Workers 8 Hours 10

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/26/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number:

Supervisor: Ruben MEDINA

Date: June 27, 1998

Weather:

Temperature AM PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital Pent House and 3rd floor

WORK PERFORMED 7:00 Am we start to work and we did finish in pent House
12:00 we take lunch
1:00 pm come back to working and we did finish 3rd and second floor
4:00 pm we stop of work
workers 13 supervisor 2 Hours 8

Miscellaneous Remarks:

AZTEC

ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/27/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben Medina

Date: June 29, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital P.H, 4th, 3rd, 2nd Floors

WORK PERFORMED 7:00 Am we start to work and we Come back To P.H and we did break Concret Floor, Throw in the dumpster cut metal
12:00 we take lunch
1:00 we came back to continued working in university Hospital
4:00 Pm we stop of work workers 8
Supervisori Hours 8

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!!		
12. ALL keys accounted for.		

Date: 6/29/98

Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX. (904) 784-0430

Form S-14

DAILY JOB REPORT

Job Name: University Hospital

Job Number: _____

Supervisor: Ruben MEDINA

Date: July 7, 1998

Weather: _____

Temperature _____ AM _____ PM

Qty	Materials Ordered	Materials Received

Sub-contractors (Name)	Work Performed

Visitors to Site/Remarks University Hospital

WORK PERFORMED 7:00 AM we start to work in University Hospital in the elevators and we did pull out Leonolea and bagged 12:00 we finish -all work workers 4 Supervisor 1 Hours 5

Miscellaneous Remarks:

AZTEC
ENVIRONMENTAL, INC.

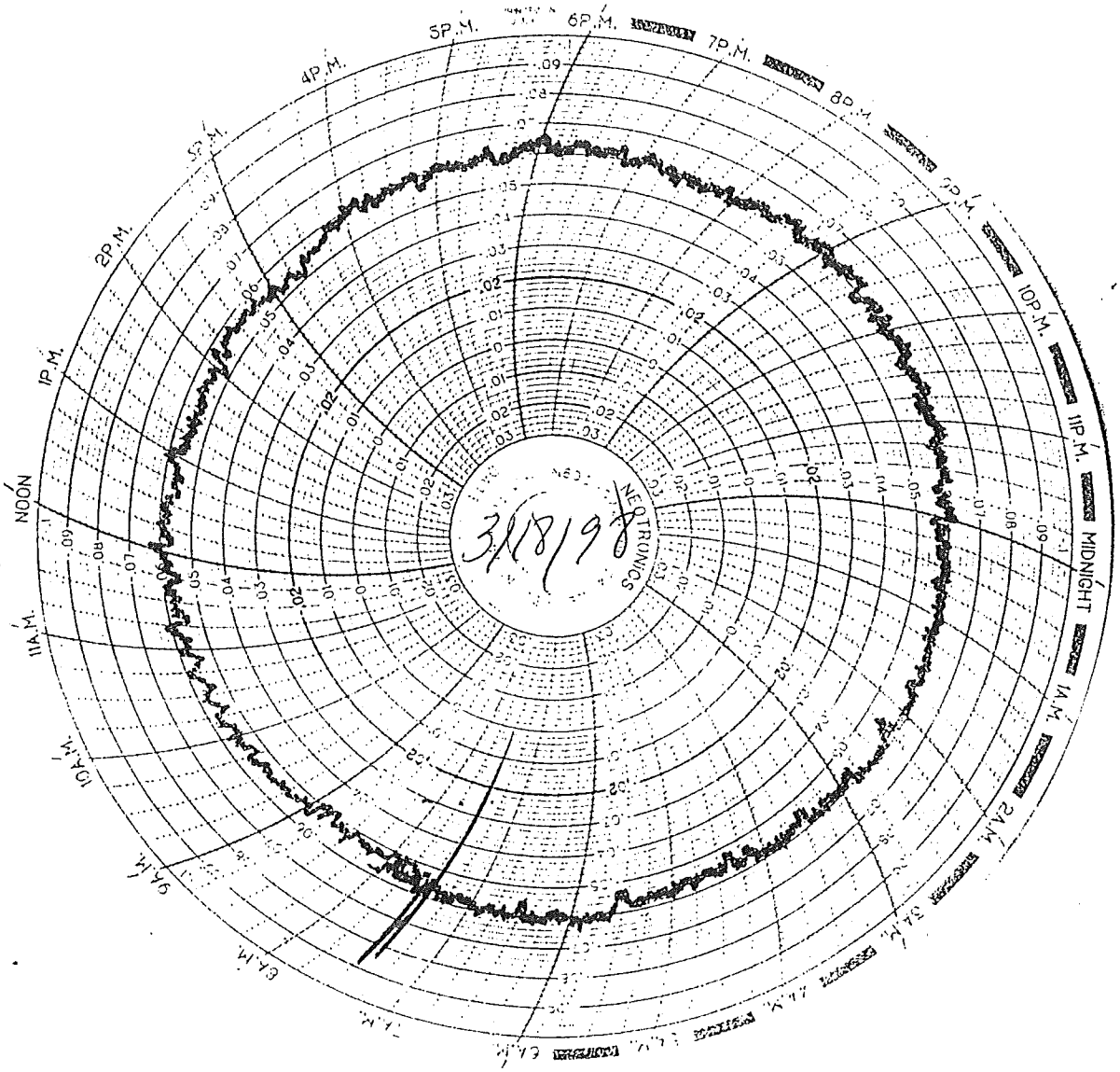
Job: University Hospital

DAILY CHECKLIST

	YES	NO
A.M		
1. Visual signs of damage to trucks or forced entry to building.		✓
2. Suits, hoods, boots and Resp. equipment available for crew.	N/A	
3. Hoses hooked up and De-Con in Order.		
4. Look for Leaks in outside Containment.		
5. Do inside Smoke Test on every shift.		
MID A.M.		
1. Filters on Micro-Trap (Change if needed).		
2. De-Con clean (No Trash or leaking water).		
3. Suits, hoods, boots, filters available for after lunch.		
4. Visual inspection of outside of building or work area.		
5. Check protective clothing for tears.		
LUNCH		
1. Filters changed on respirators if needed.		
2. Batteries changed or on charge.		
MID-AFTERNOON		
1. Filters on Micro-Traps (change if needed).		
2. De-Con clean (No trash or water).		
3. Visual inventory of suits, hoods, boots, filters.		
4. Visual inspection of outside of building or work area.		
5. Check Protective Clothing for Tears.		
END OF DAY		
1. Micro-Trap filters (changed if needed).		
2. Check all seals on Micro-Traps.		
3. Check Powercords on Micro-Traps.		
4. Temporary lights "OFF".		
5. Inside Water ("OFF", (Drain hose if in winter).		
6. Respirators cleaned and stored (count if necessary).		
7. Water "OFF" to De-Con (drain hose if in winter).		
8. De-Con Cleaned.		
9. Building LOCKED!!!!!!!!!		
10. Trucks LOCKED (Back end to end if possible).		
11. Trailer LOCKED!!!!!!!!	✓	
12. ALL keys accounted for.		

Date: 7/7/98 Signed: Ruben Medina

2060 No. Sherman Ave., Panama City, FL 32405
TEL: (904) 747-0078 FAX: (904) 784-0430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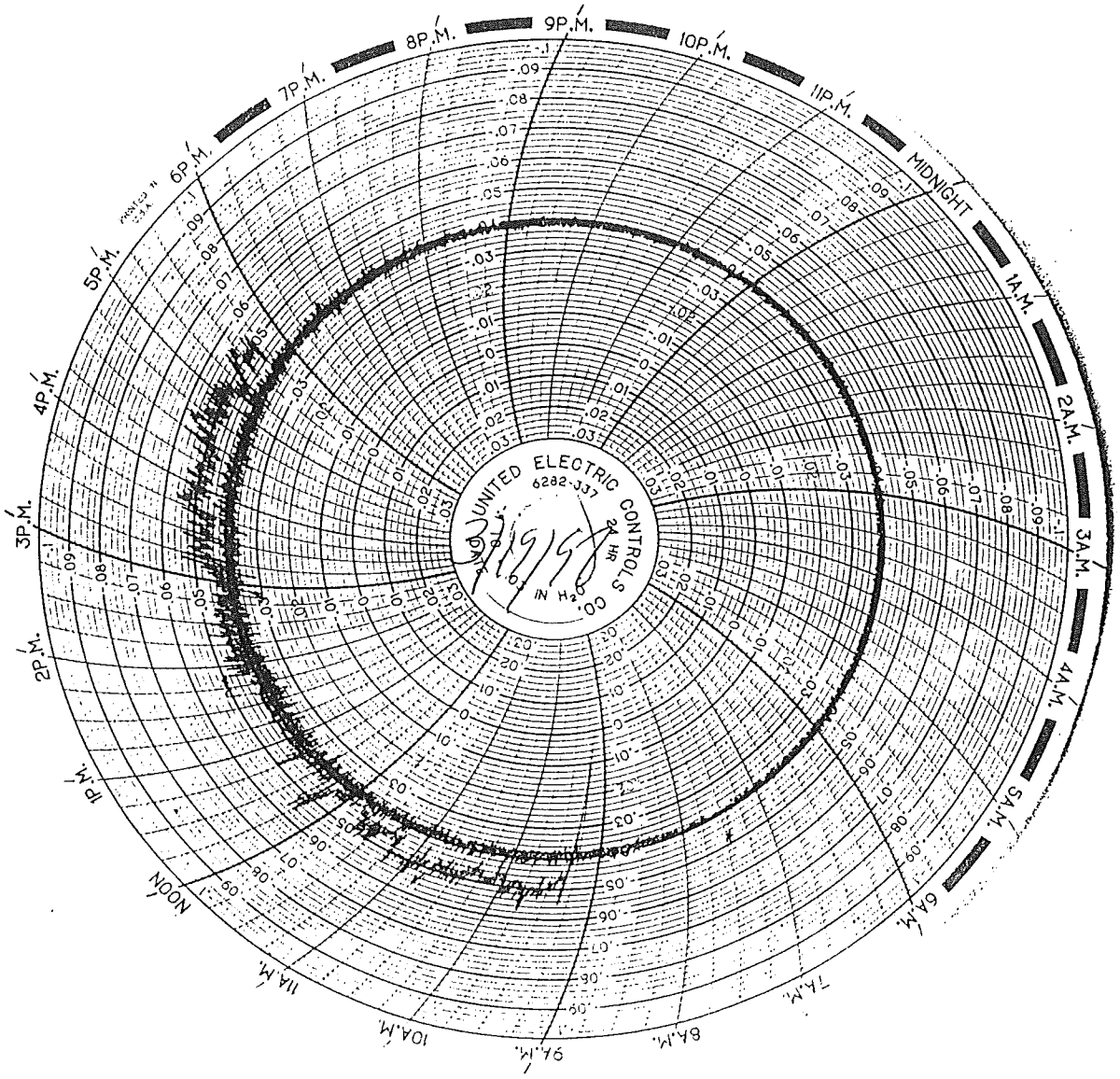
3/18/98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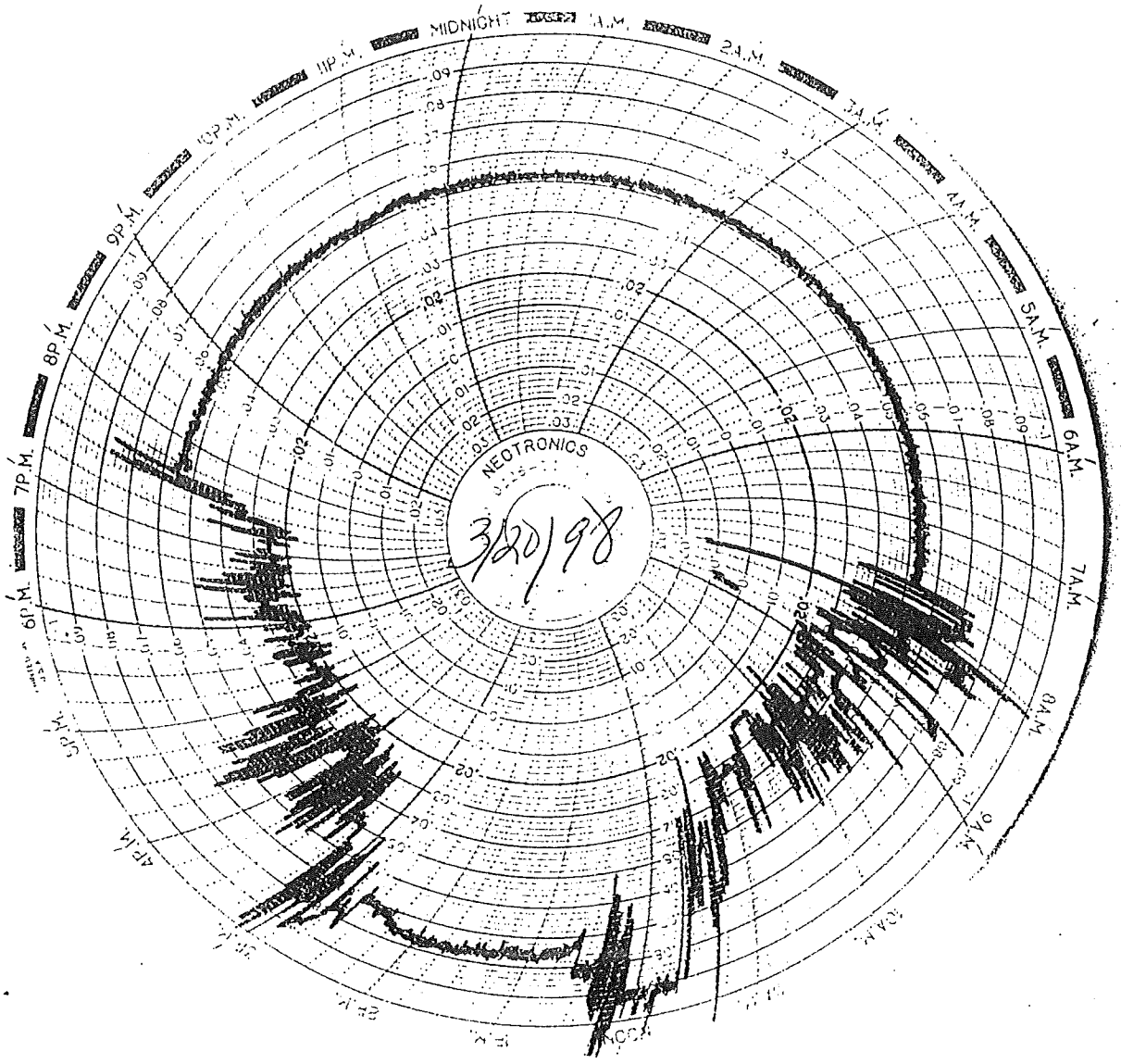
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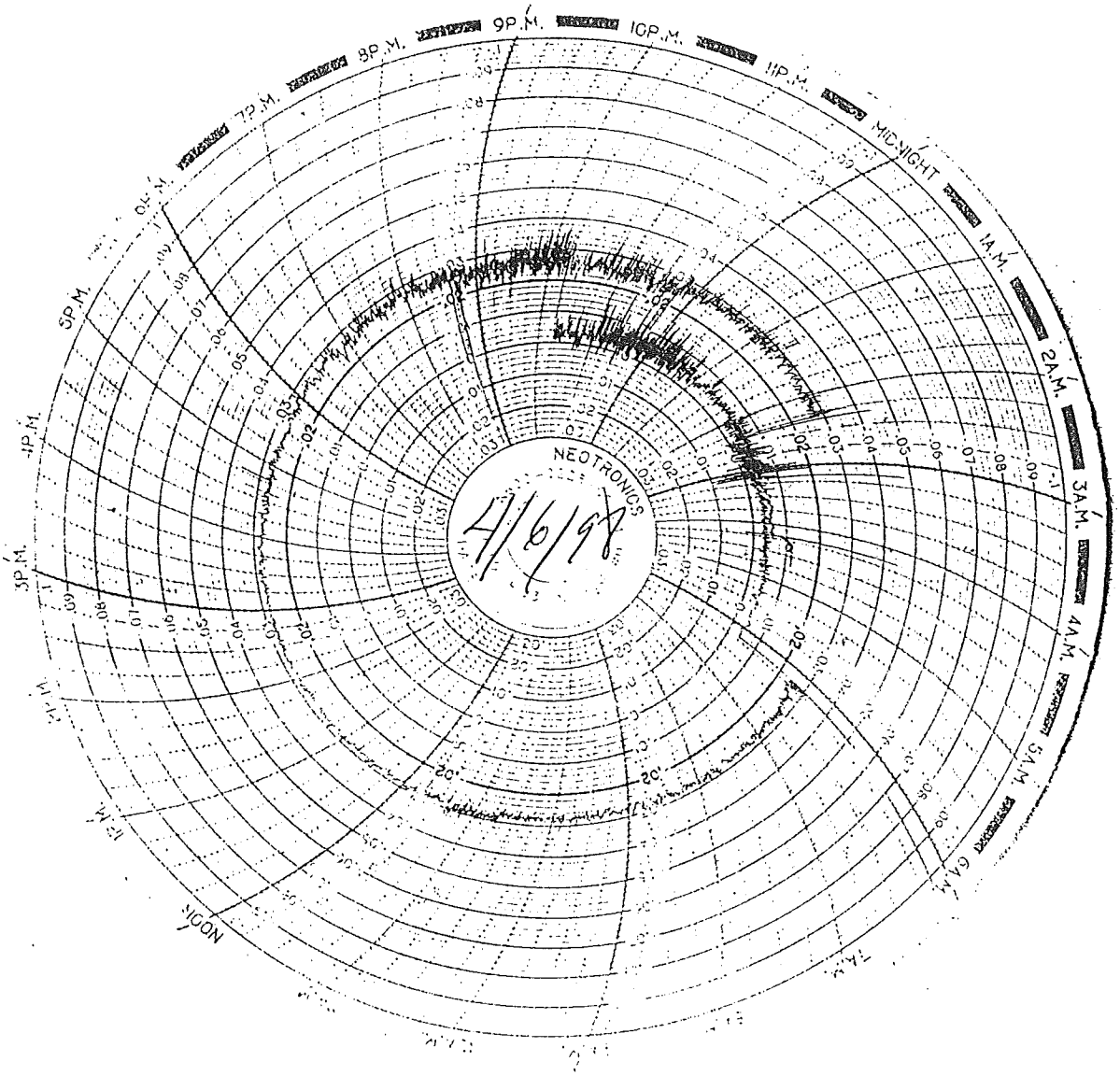
3/20/98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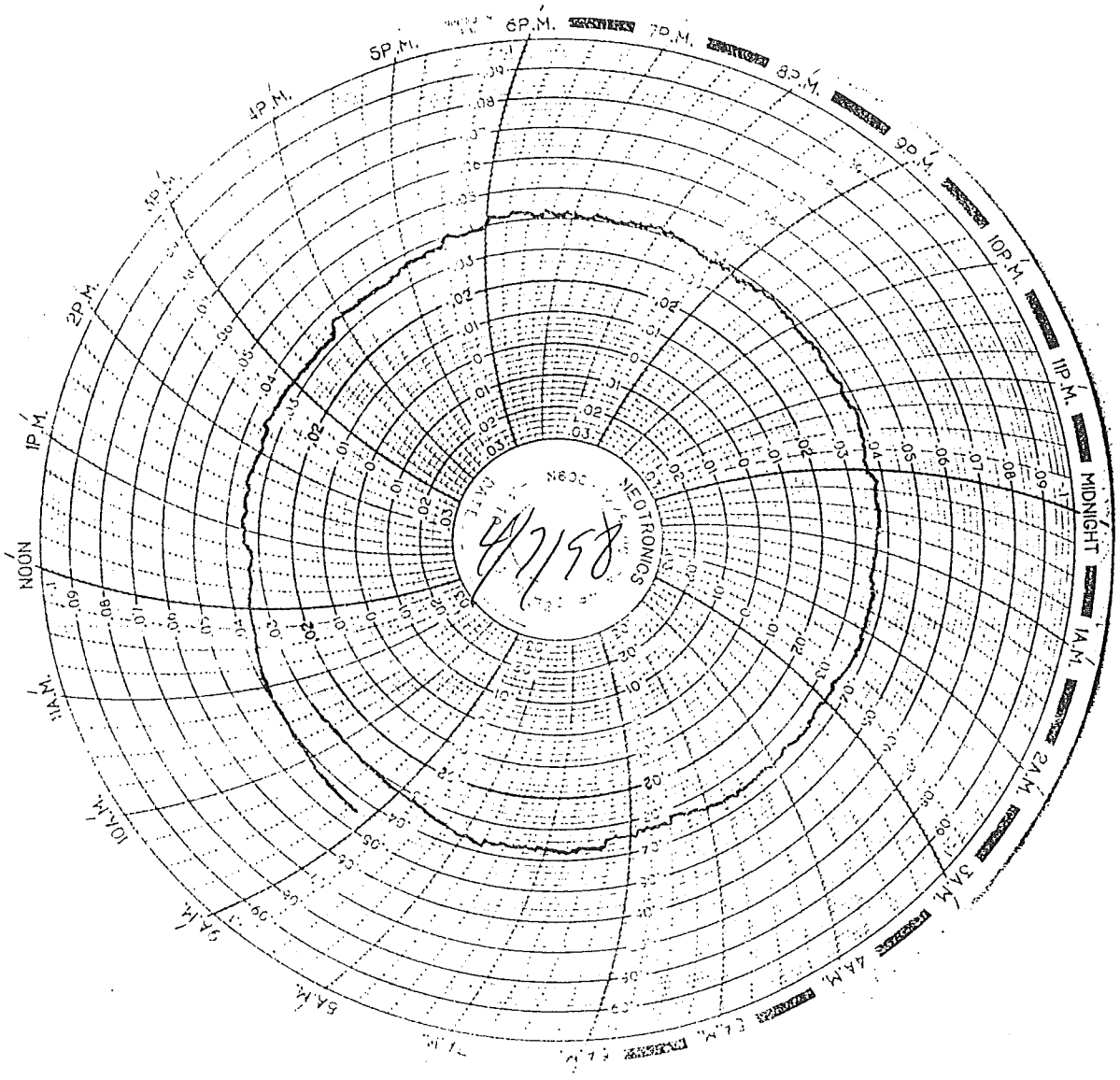
4/6/98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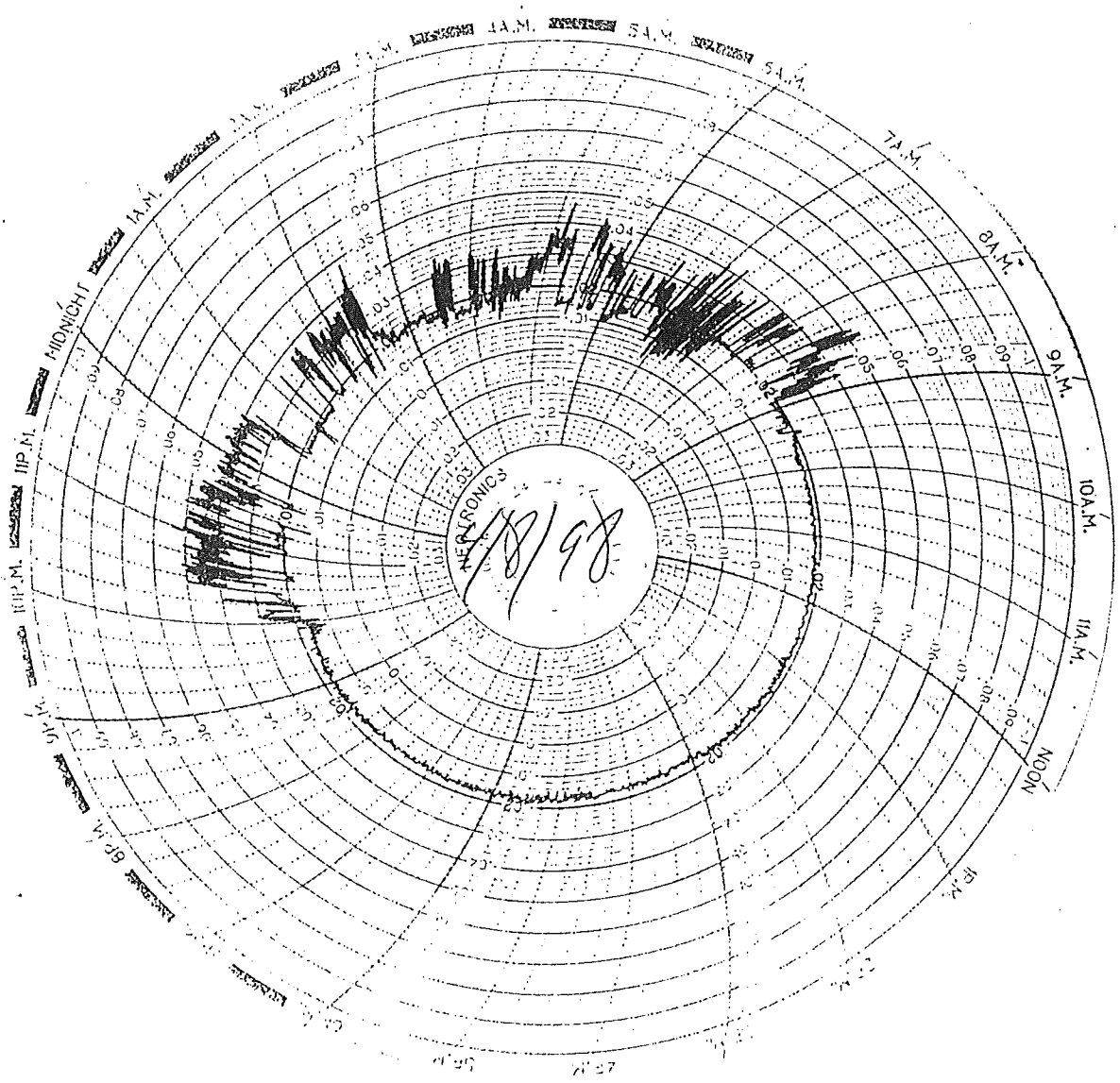
4/7/58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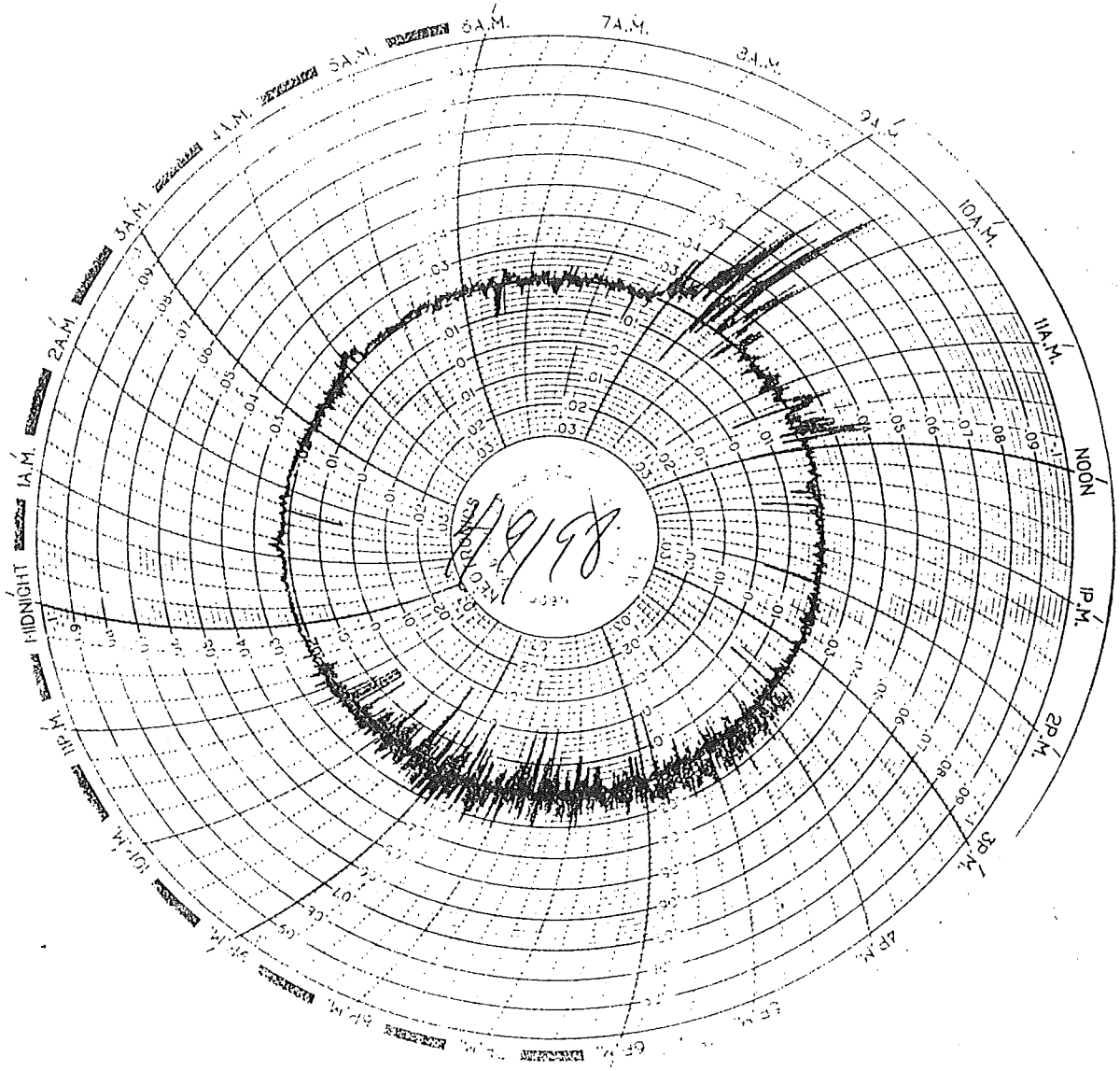
18/98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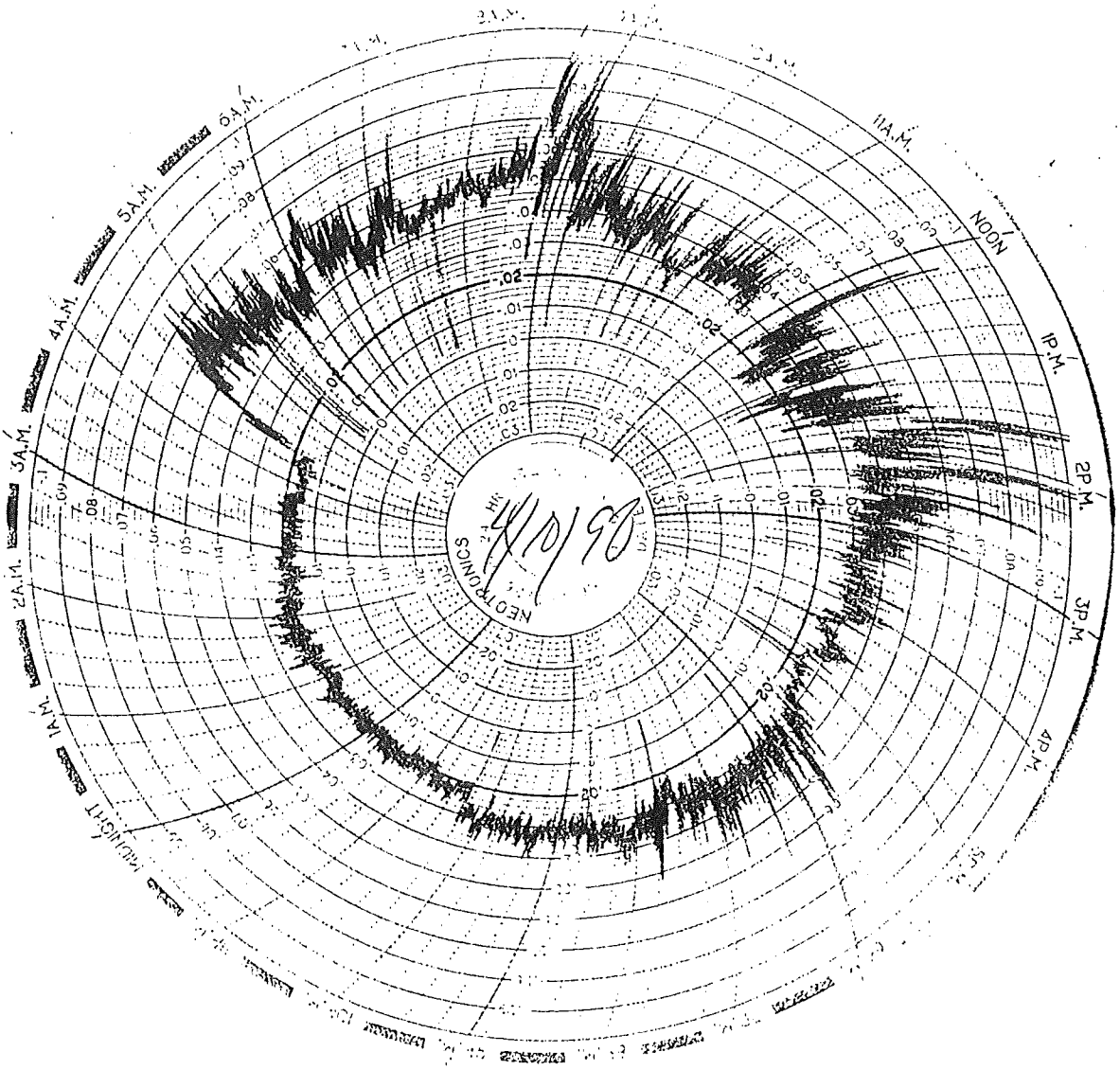
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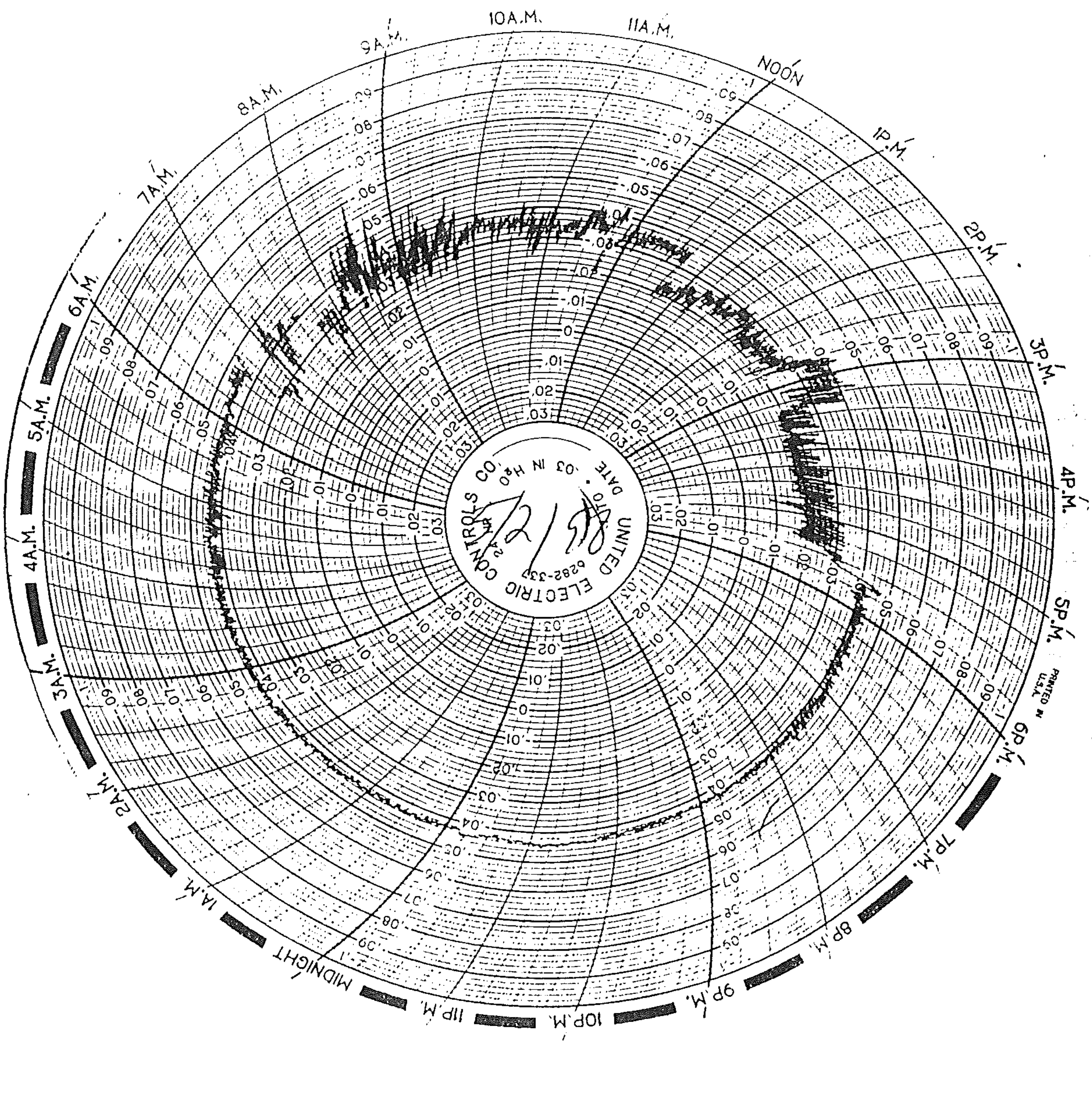
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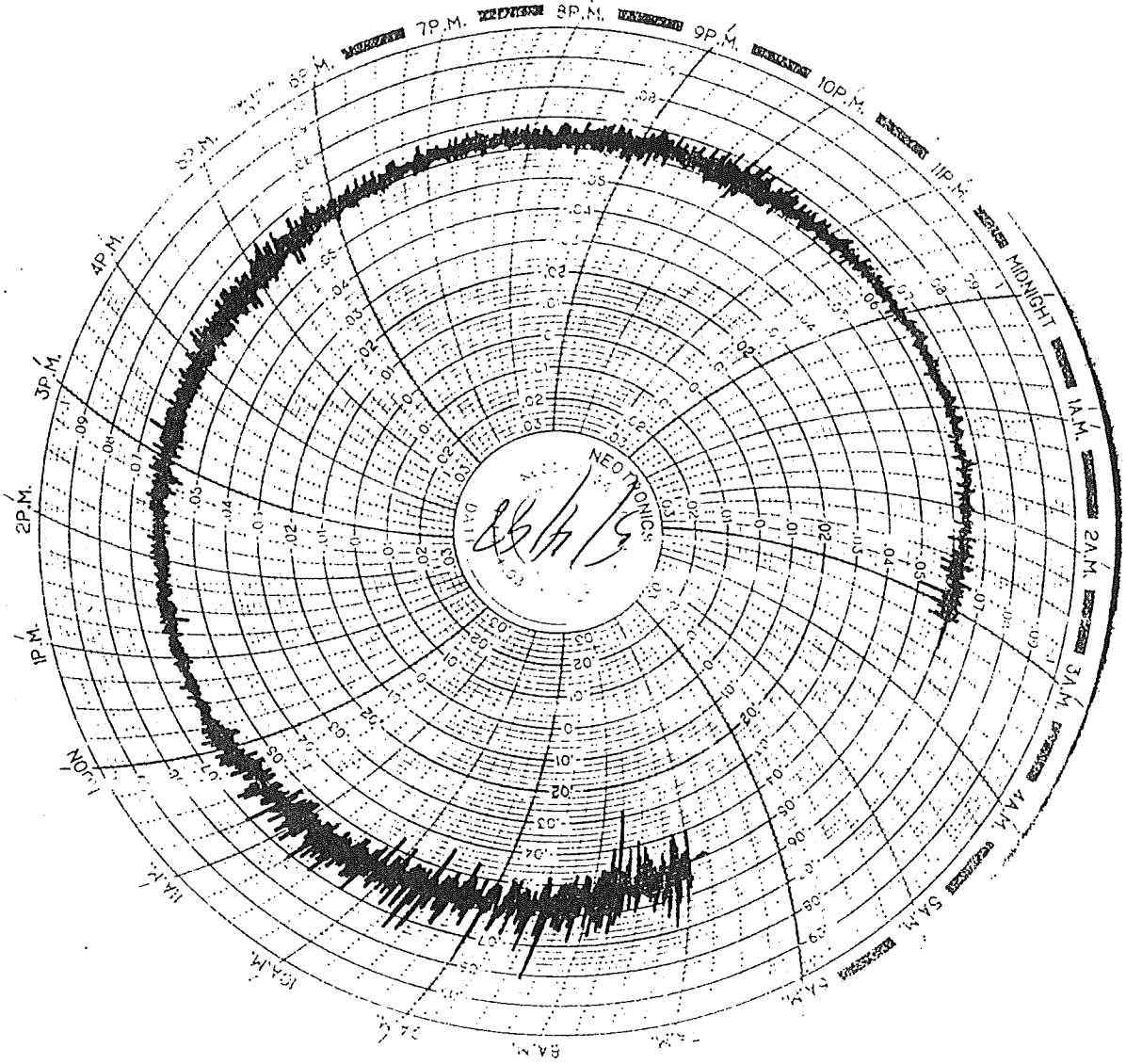
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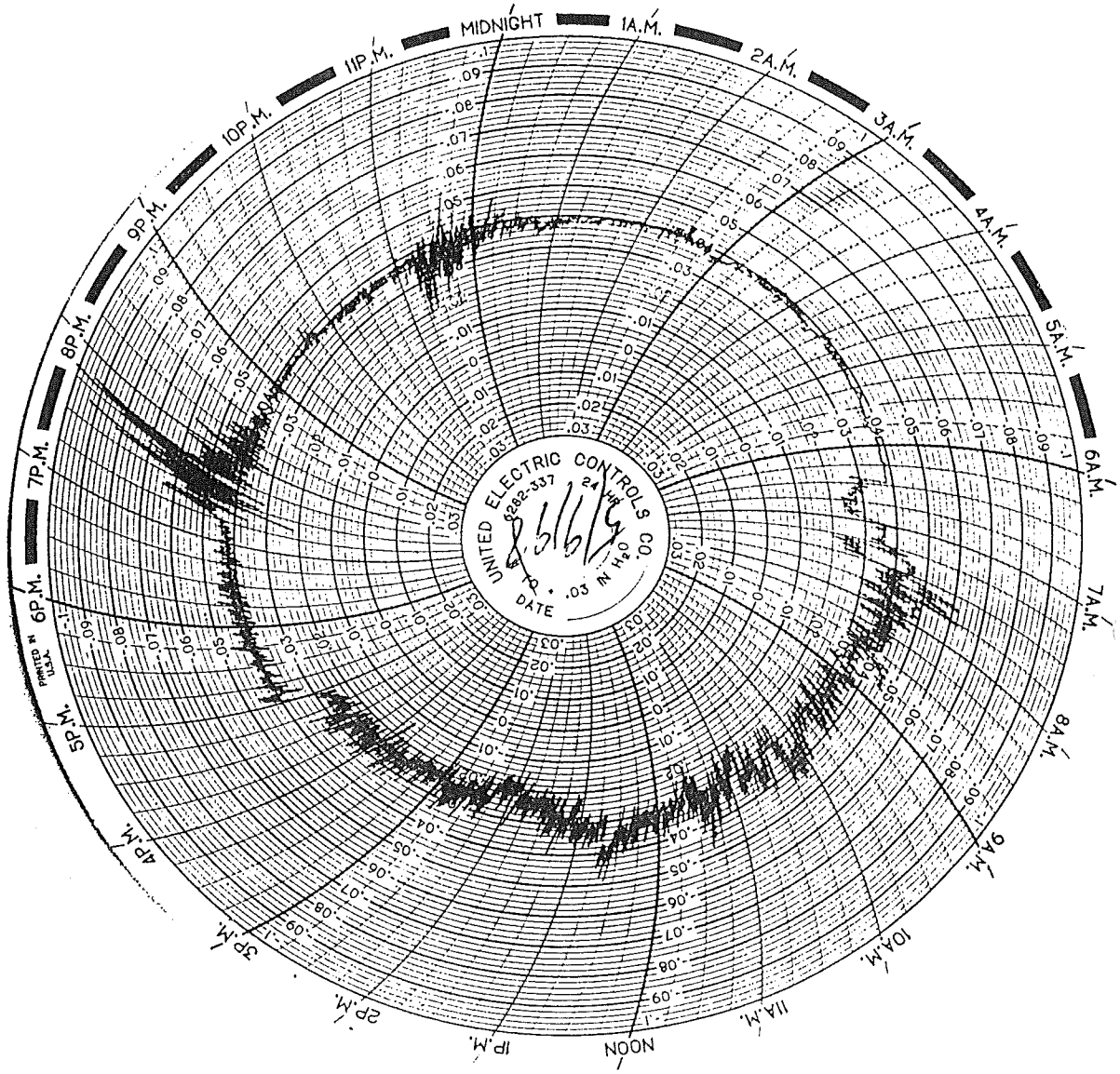
NEOTRONICS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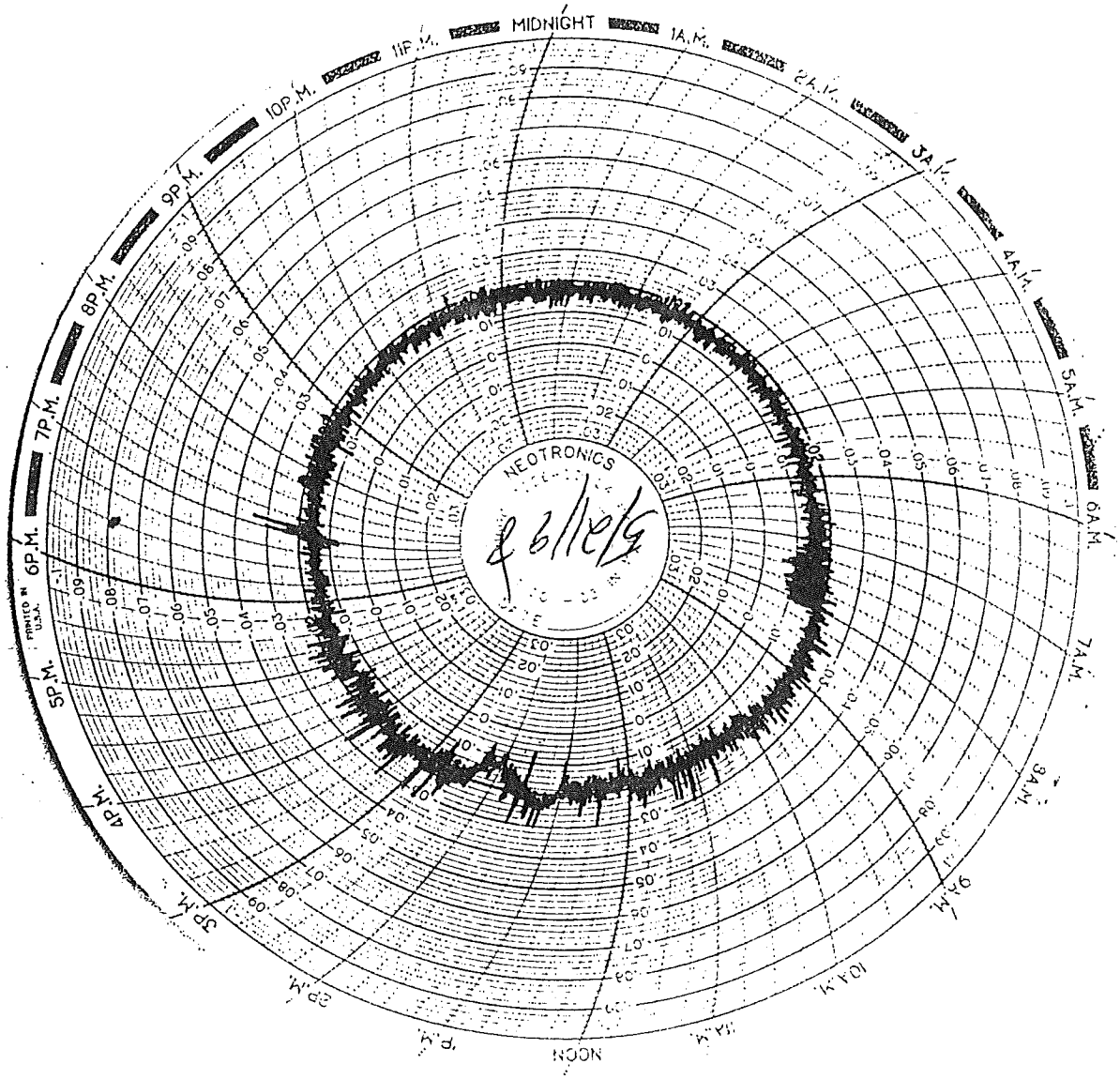
UNITED ELECTRIC CONTROLS CO.
8282-337
24 HR.
DATE
PRINTED IN U.S.A.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NEOTRONICS
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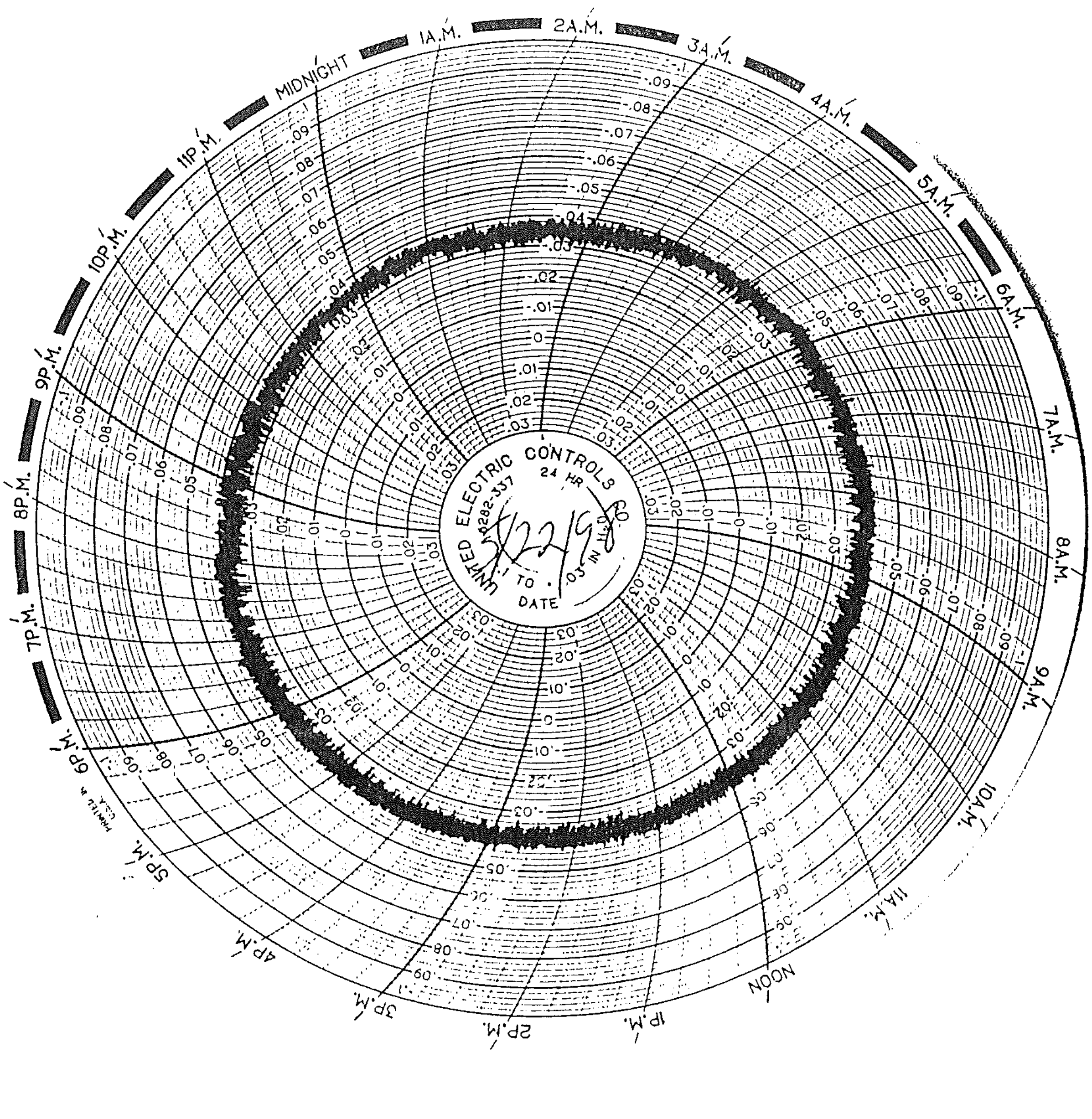
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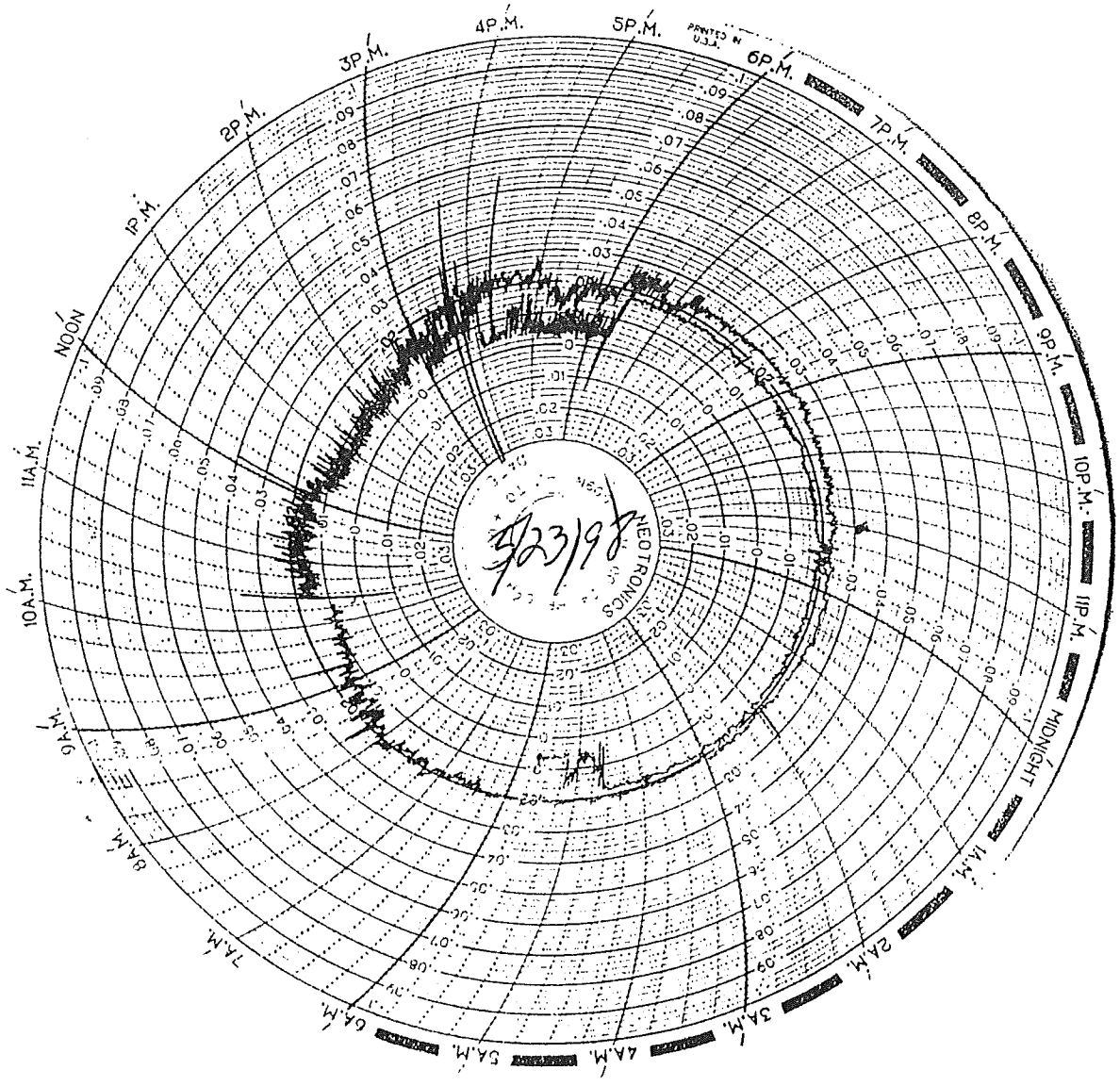
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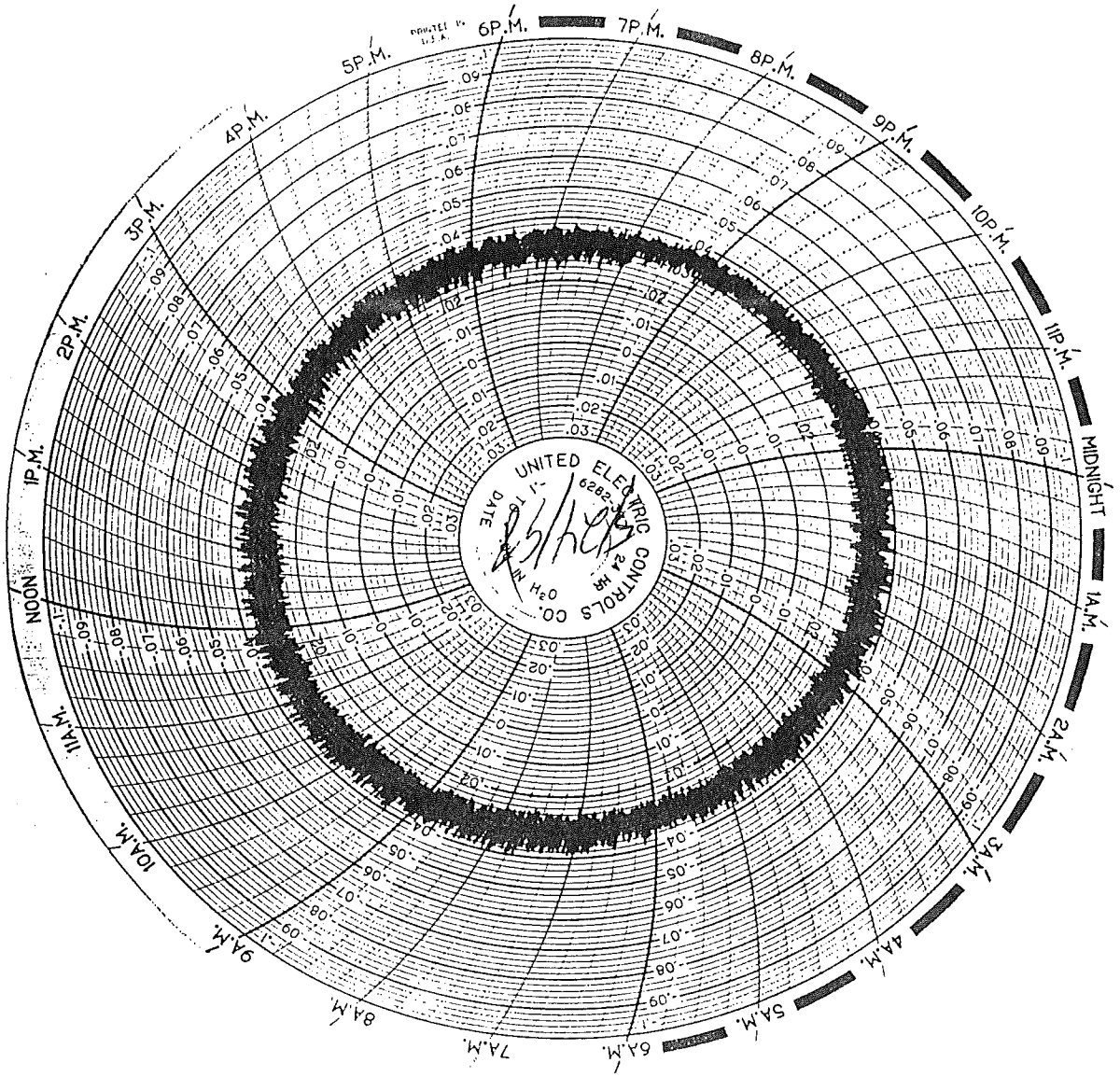
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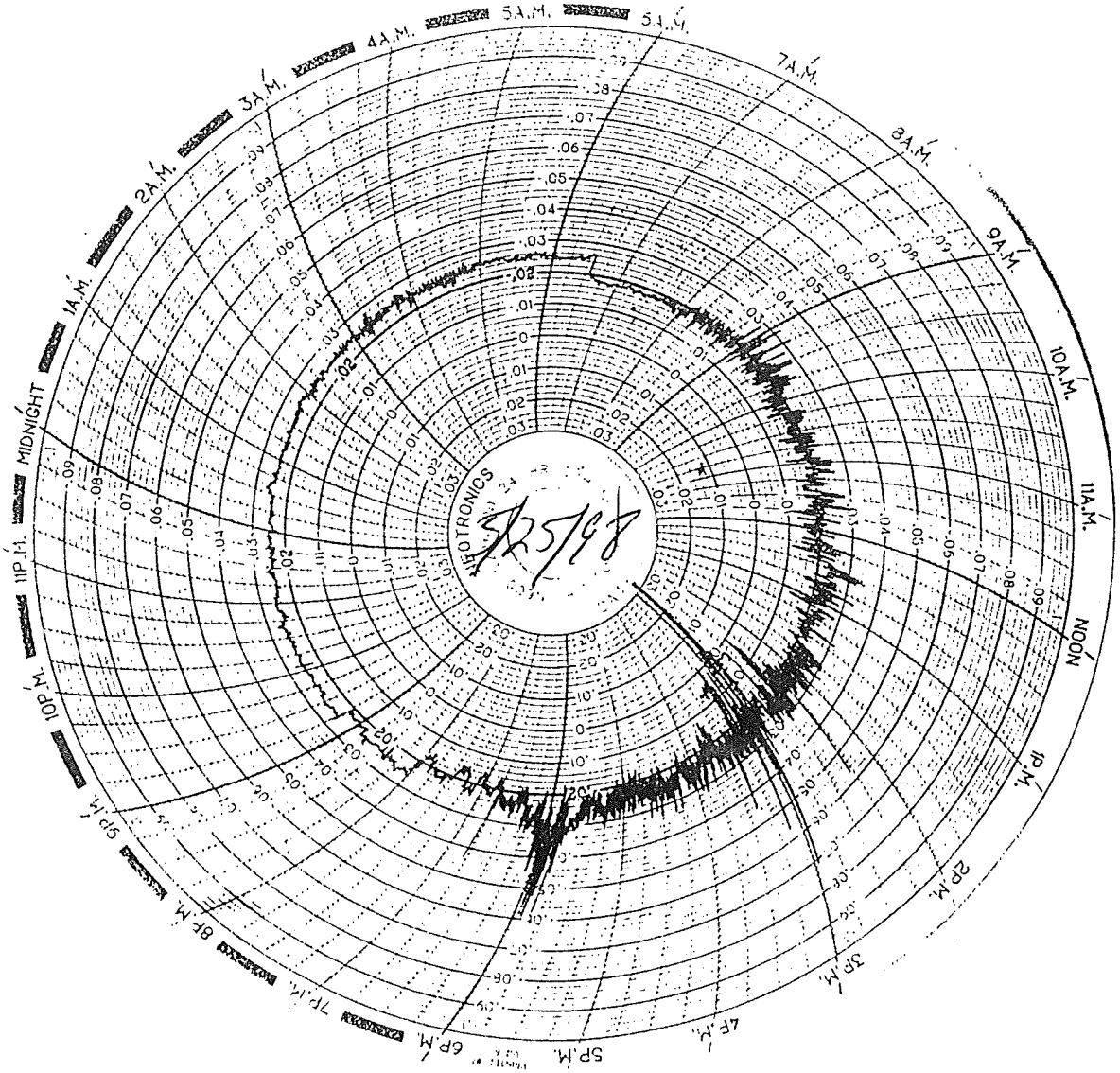
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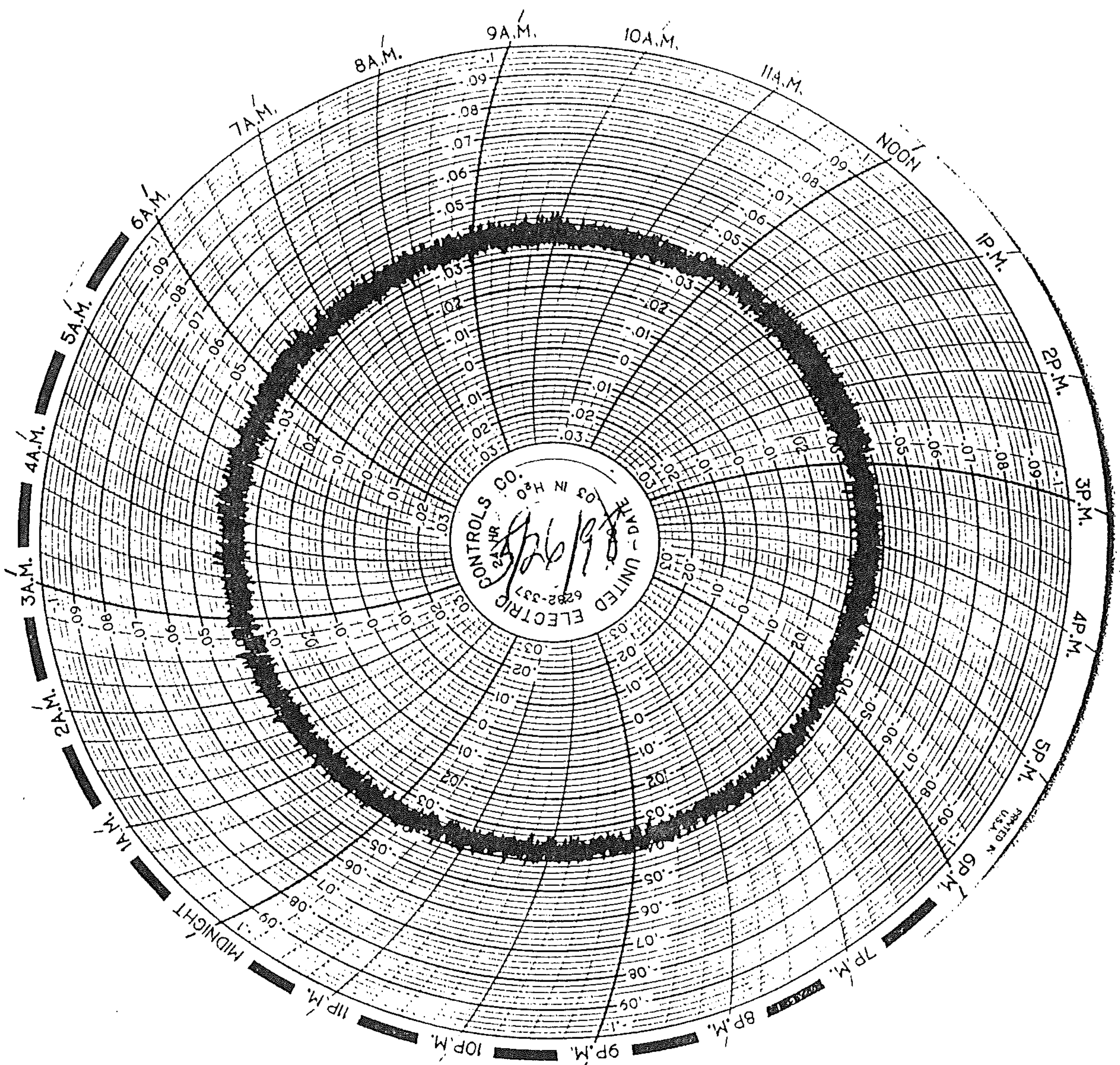

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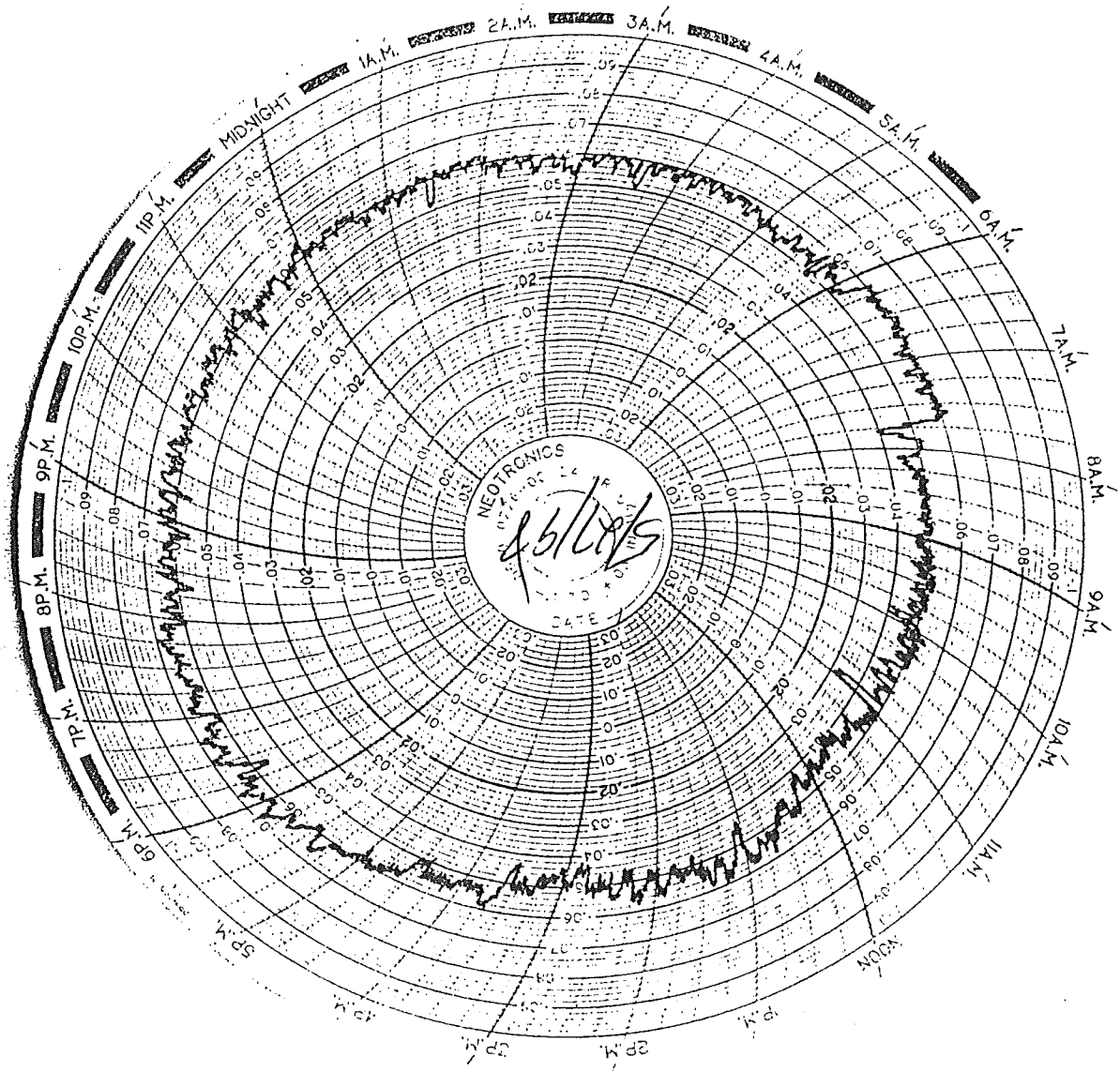
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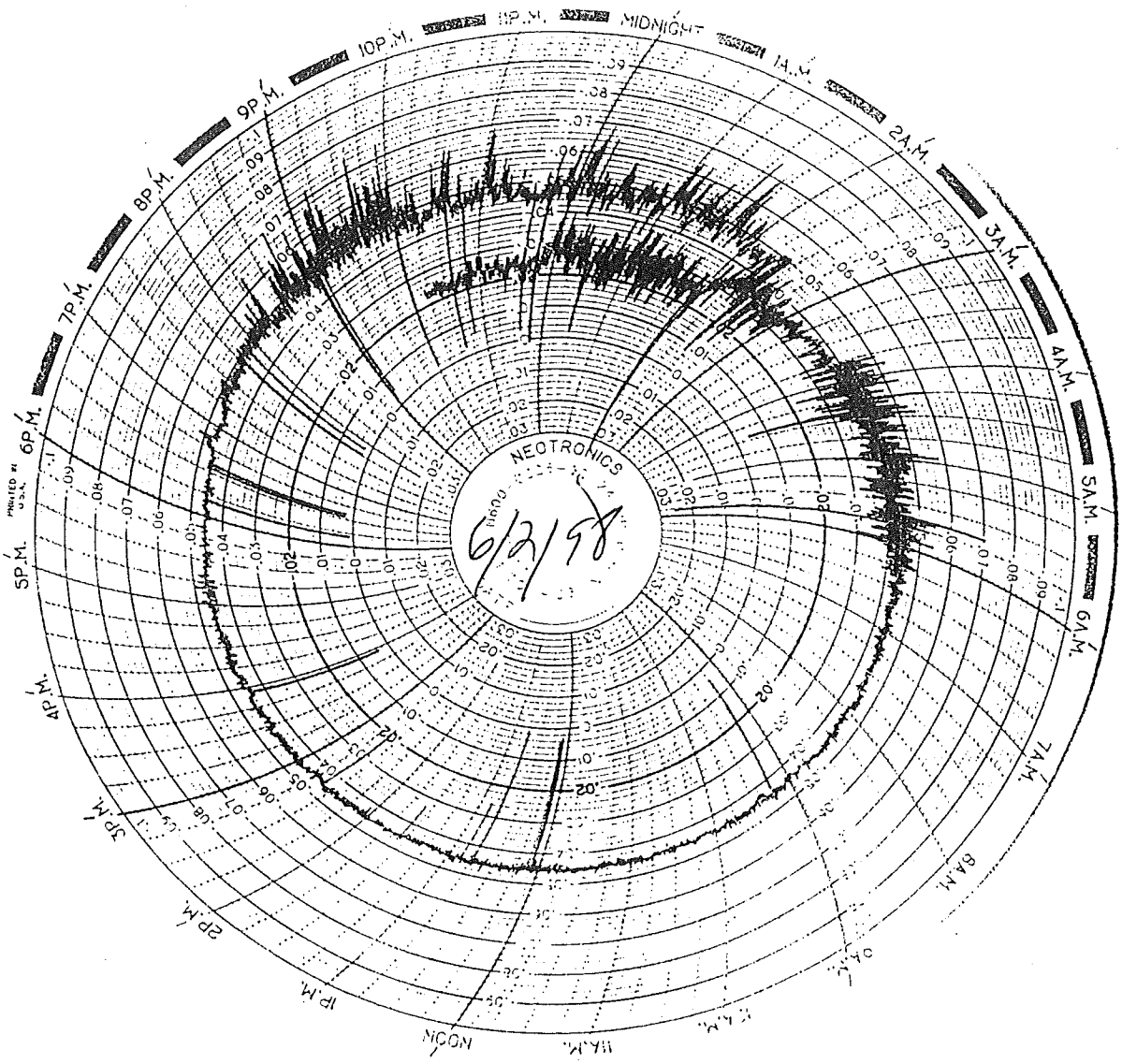
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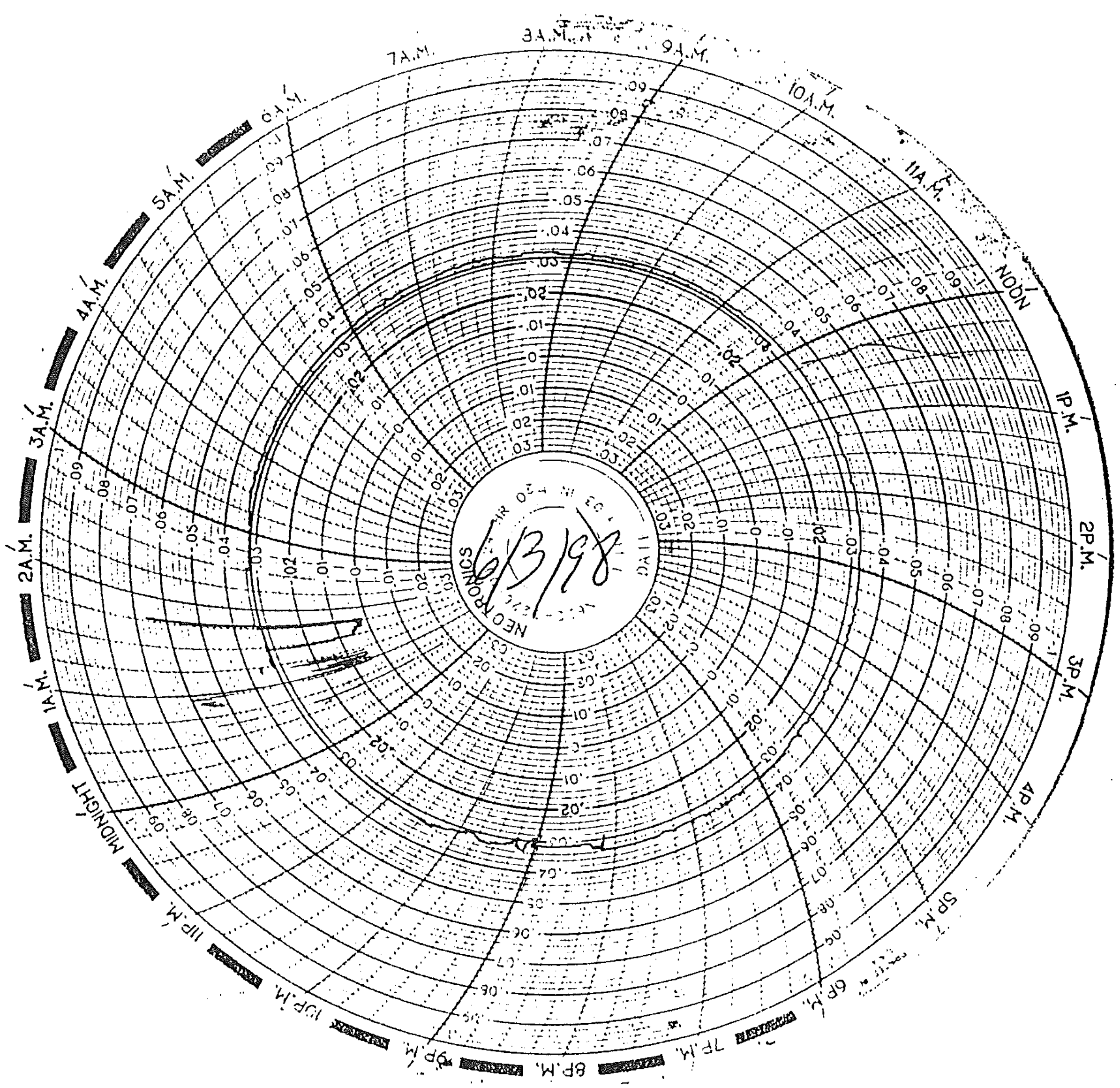
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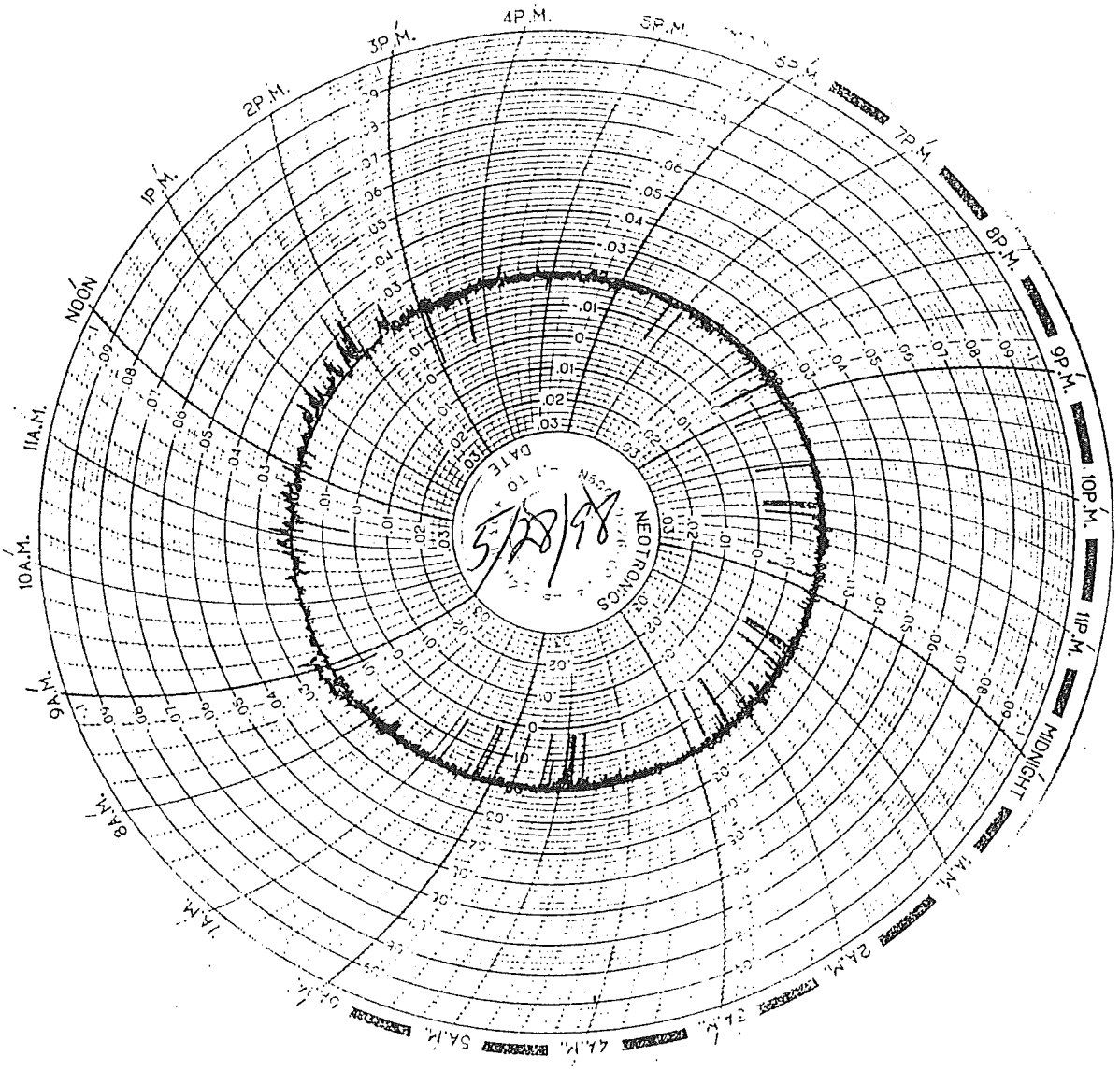
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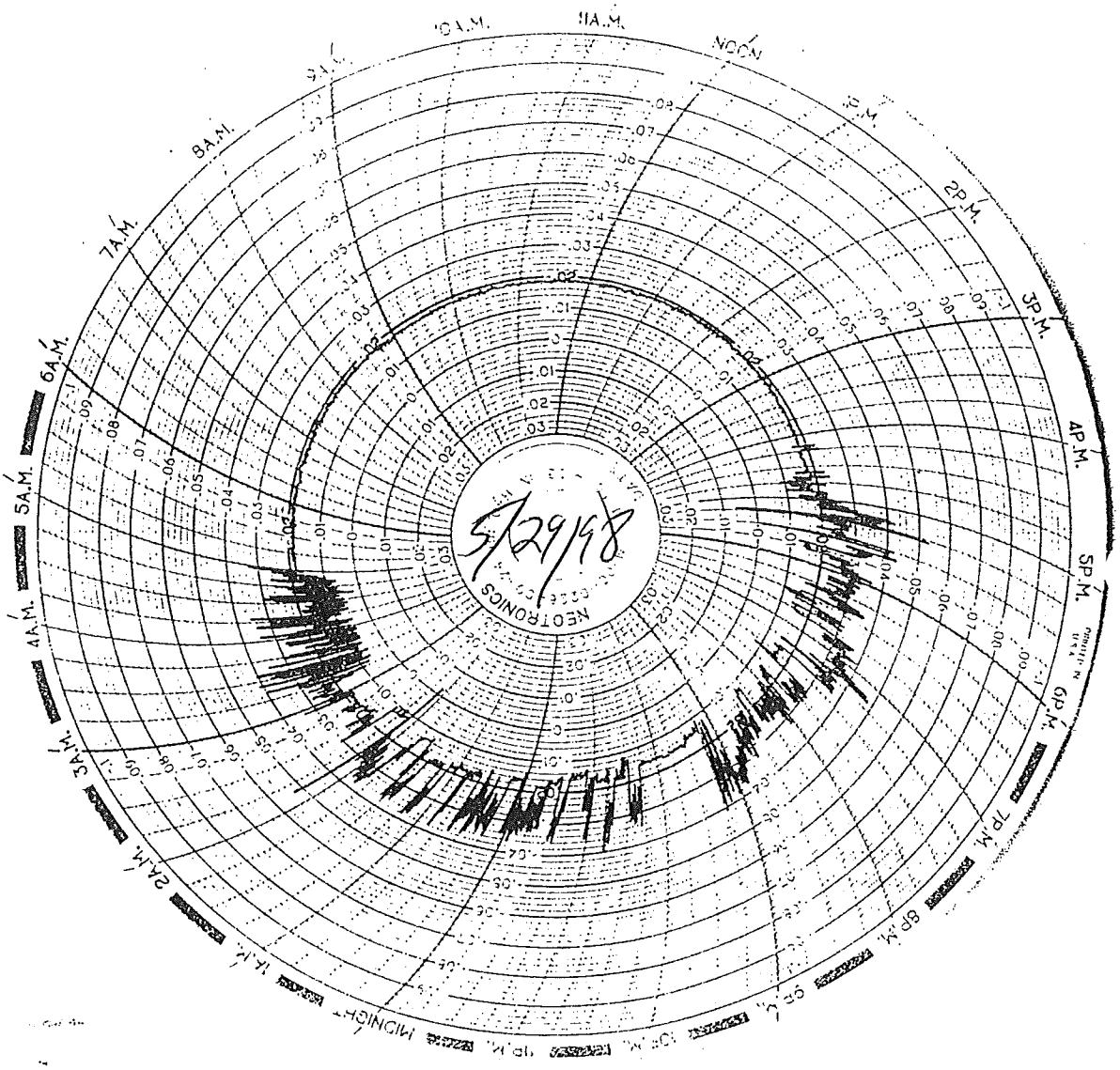
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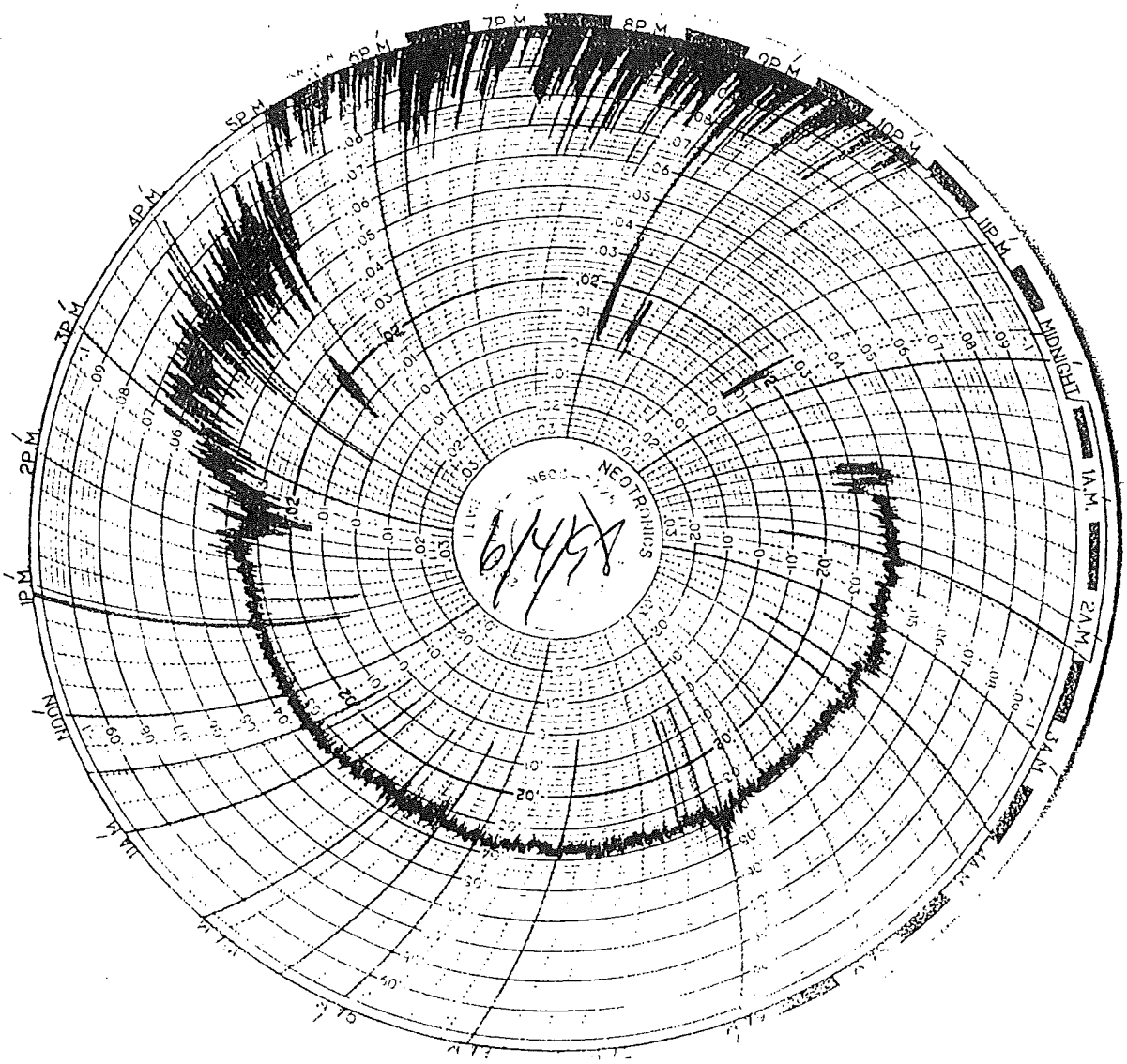
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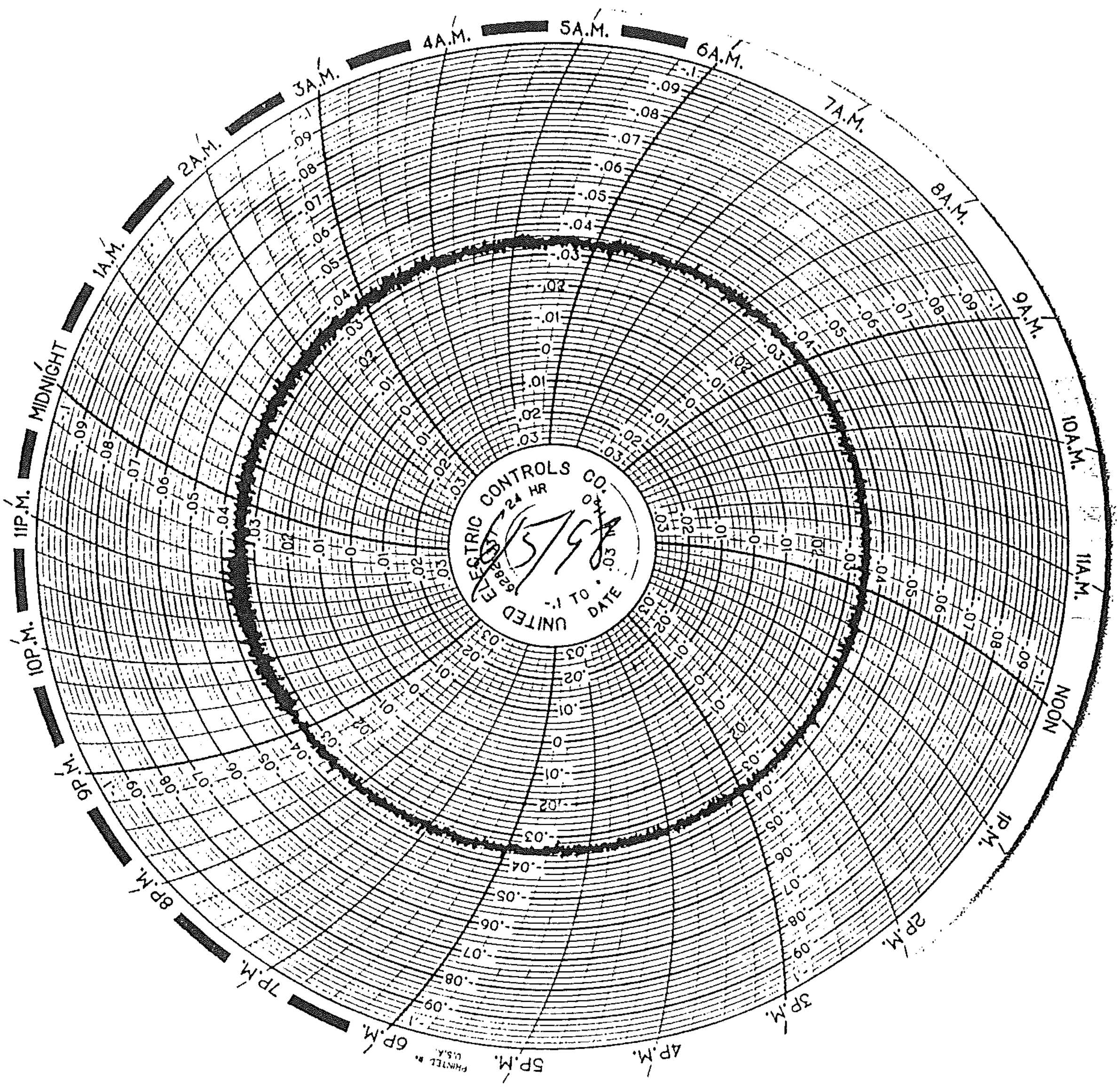
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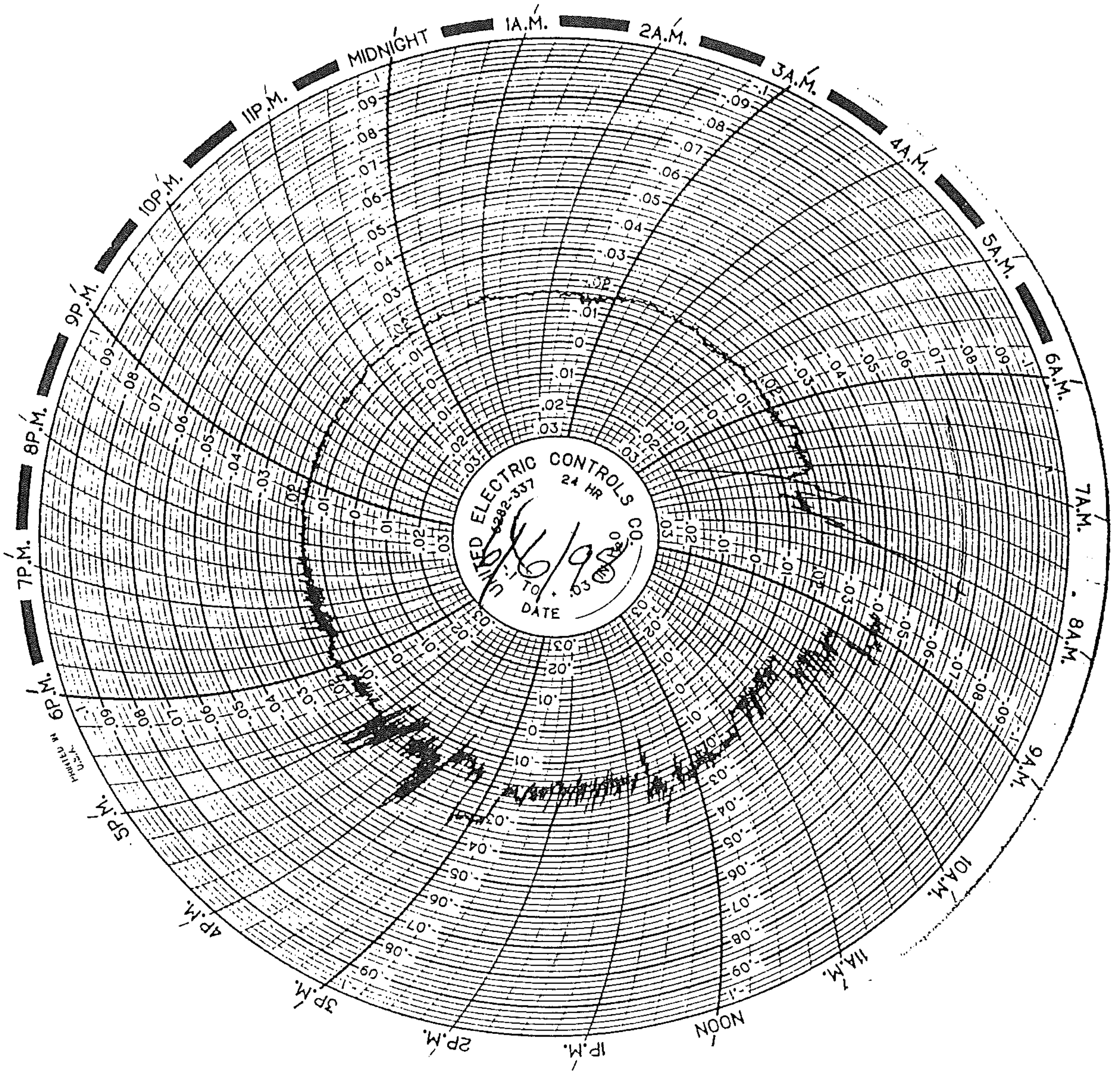
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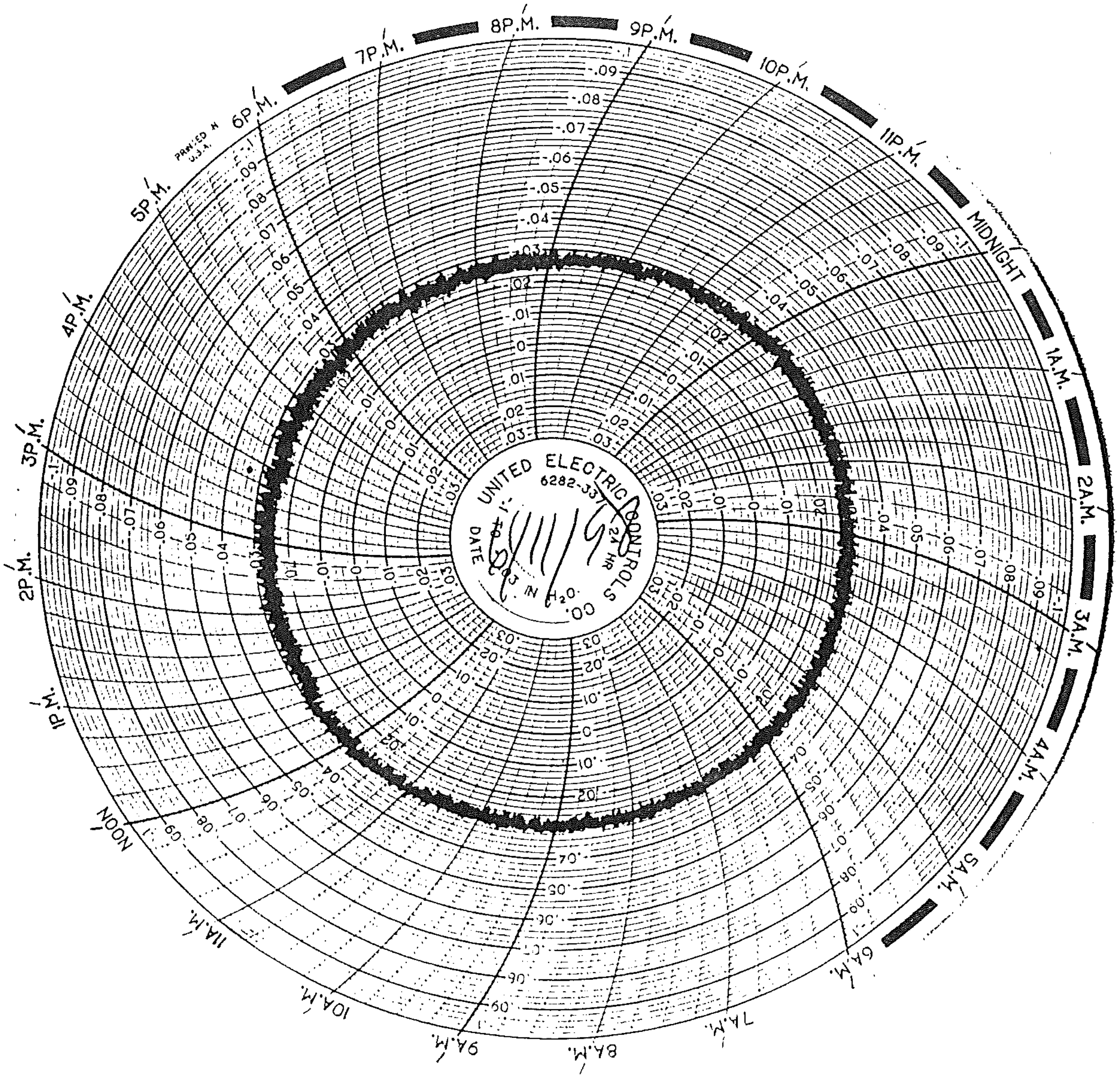
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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental
Client Address: Panama City, FL
Project Site: University Hospital
Contractor: N/A

Project No.: 783-7A027
Collected By: A. Richmond
Analyzed By: A. Richmond
Laboratory ID No.: 783-98010.001-

Report No.: 2877
Date Collected: 3-18-98
Date Received: 3-18-98
Date Analyzed: 3-19-98

SAMPLE DATA

Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)
010.001	Floor Tile Removal	Miguel Medina, Personal Sample	1	2.0	0830	1630	480	960

ANALYTICAL DATA

Fibers Counted	Fields Counted	LOD	Fibers/cc
30.5	100	0.003	0.02

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: Andrew S. Richmond
Analyst(s) Signature: Andrew S. Richmond

DUPLICATE NO.:
Fibers Counted:
Fields Counted:

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Fibers Count
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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.:	Report No.:
Client Address: Panama City, FL	Collected By: A. Richmond	Date Collected: 3-19-98
Project Site: University Hospital	Analyzed By: A. Richmond	Date Received: 3-19-98
Contractor: N/A	Laboratory ID No.: 783-980/0.002-004	Date Analyzed: 3-20-98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
010.002	Floor Tile Removal	Laura Personal Sample	2	2.0	0728	1015	167	334	13	100	0.008	0.02
010.003	"	Personal Sample	2	2.0	1315	1700	225	450	18	100	0.006	0.02
010.004	"	Miguel Medina Personal Sample	1	2.0	1315	1700	225	450	24	100	0.006	0.03

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: Andrew S. Richmond

Analyst(s) Signature: Andrew S. Richmond

DUPLICATE NO.: 002	BLANK DATA
Fibers Counted: 14.5	Fibers Counted: 0
Fields Counted: 100	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8409	Report No.:
Client Address: Panama City	Collected By: J Jernigan	Date Collected: 3/25/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 3/25/98
Contractor: Aztec Env.	Laboratory ID No.: 783-98010	Date Analyzed: 3/26/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
010.008	Floor tile	~~Miguel~~ Marco Pers	G-43	2.0	7:10	12:10	300	600	28	100	0.005	0.02
010.009	"	Marco Pers.	G-43	2.0	12:50	17:30	280	560	58	100	0.005	0.05
010.010	"	Miguel Medina pers	client	2.0	7:02	12:05	303	606	48	100	0.004	0.04
010.011	client Sample	Miguel Medina pers.	client	2.0	13:10	17:50	260	520	29	100	0.005	0.03

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:	
Client Address: Panama City	Collected By: J Jernigan	Date Collected: 3/24/98	
Project Site: University Hospital	Analyzed By: JJernigan	Date Received: 3/24/98	
Contractor: Aztec Env.	Laboratory ID No.: 783-98010.	Date Analyzed: 3/25/98	

SAMPLE DATA										ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)		Fibers Counted	Fields Counted	LOD	Fibers/ cc
010.005	Floor t/c	Miguel Medina Pers.	643	2.0	8:15	12:10	235	470		36	100	0.006	0.04
010.006	"	Miguel Medina Pers.	643	2.0	12:45	16:50	245	490		72	100	0.006	0.07
010.007	" Client sample	Marco Pers	Client	2.0	7:00	12:15	255	510		6 55	100	0.005	0.01

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 3/27/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 3/27/98
Contractor: Aztec Env.	Laboratory ID No.: 783-010	Date Analyzed: 3/27/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
010.016	Bag Out Cleanup	Morgue Pers.	6-43	2.0	7:00	13:45	405	810	21	100	0.003	0.01
010.017	First Floor II	Mixed pers.	client	2.0	7:00	13:45	405	810	1	100	0.003	<0.01

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: J. Jernigan

Analyst(s) Signature: J. Jernigan

DUPLICATE NO.:	BLANK DATA
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Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 3/26/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 3/26/98
Contractor: Aztec Env.	Laboratory ID No.: 783-8010	Date Analyzed: 3/27/98

SAMPLE DATA										ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)		Fibers Counted	Fields Counted	LOD	Fibers/ cc
010.012	Bagout Mastic Rem	Marco Pers	G-43	2.0	7:00	11:55	295	590		36	100	0.005	0.03
010.013	"	Marco Pers.	G-45	2.0	12:30	17:10	280	560		10	100	0.005	<0.01
14 010.014	"	Miguel Pers.	client	2.0	7:10	11:55	285	570		16	100	0.005	0.01
15 010.015	"	Miguel Pers	client	2.0	12:37	17:00	263	526		20	100	0.005	0.02

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental
Client Address: Panama City
Project Site: University Hospital
Contractor: Aztec Env.

Project No.: 783-8A009
Collected By: J. Jernigan
Analyzed By: J. Jernigan
Laboratory ID No.: 783-010

Report No.:
Date Collected: 3/30/98
Date Received: 3/30/98
Date Analyzed: 3/31/98

SAMPLE DATA / ANALYTICAL DATA

Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
18 010.018	Second floor Floor Tile	Miguel Pers.	G413	2.0	8:10	12:00	230	460	2	100	0.006	<0.01
19 010.019	"	Miguel Pers.	G413	2.0	8:05	17:15	250	500	16	100	0.005	0.02
20 010.020	" Client	Marco Pers.	Client	2.0	8:15	12:00	225	450	35	100	0.006	0.04
21 010.021	" Client	Marco Pers	Client	2.0	8:05	17:15	250	500	9	100	0.005	<0.01

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:
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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:
Client Address: Panama City	Collected By: J. Farnigan	Date Collected: 03/31/98
Project Site: University Hospital	Analyzed By: J. Farnigan	Date Received: 3/31/98
Contractor: Aztec Env.	Laboratory ID No.: 783-010	Date Analyzed: 4/1/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
22 010022	Floor Tile Removal	2nd Floor, M. Medical	64	2.0	0749	12:00	251	502	Overloaded		0.005	
23 010023	"	2nd Floor, M. Medical	1	2.0	7:00	11:55	295	590	2	100	0.005	<0.01
24 010024	"	Miguel	G-4	2.0	13:00	17:15	255	510	100	61	0.005	0.16

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:	
Client Address: Panama City	Collected By: D. Donahoo	Date Collected: 4/1/98	
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/1/98	
Contractor: Aztec Env.	Laboratory ID No.: 783-010	Date Analyzed: 4/1/98	

SAMPLE DATA										ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)		Fibers Counted	Fields Counted	LOD	Fibers/ cc
25 010.024	Floor Tile 2nd Floor	Mixed pers	G-43	2.0	7:15	12:10	295	590		12	100	0.005	0.01
26 010.025	"	Marco pers	clear	2.0	7:00	12:10	310	620		21	100	0.004	0.02
27 010.026	"	Mixed pers.	G-43	2.0	18:00	17:20	260	520		42	100	0.005	0.04
28 010.027	"	Marco pers	clear	2.0	18:05	17:20	255	510		51	100	0.005	0.05

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:	
Client Address: Panama City	Collected By: J Jernigan	Date Collected: 4/2/98	
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/2/98	
Contractor: Aztec Environmental	Laboratory ID No.: 783-010	Date Analyzed: 4/3/98	

SAMPLE DATA

ANALYTICAL DATA

Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
29 010.028	2nd floor mastic Rm	Miguel Medina pers.	G43	2.0	7:10	12:00	290	580	51	100	0.005	0.04
30 010.029	"	Marco Medina pers	client	2.0	6:55	12:00	305	610	100	84	0.004	0.10
31 010.030	"	Miguel Medina	G43	2.0	13:00	16:30	210	420	100	51	0.006	0.23
32 010.031	"	Marco pers	client	2.0	13:00	16:30	210	420	100	50	0.006	0.22

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-98A009	Report No.:	
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/6/98	
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/7/98	
Contractor: Aztec Environmental	Laboratory ID No.: 783-98A010	Date Analyzed: 4/7/98	

SAMPLE DATA / ANALYTICAL DATA

Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
33 010,052	4th Floor Flooring	~~Marco~~ Miguel pers.	643	2.0	11:55	17:15	320	640	Overloaded		0.004	
34 010,033	11	~~Miguel~~ Marco pers.	clear	2.0	13:05	17:15	310	620	Overloaded		0.004	

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/7/98
Project Site: University Hospital	Analyzed By: S. Sivaraman	Date Received: 4/7/98
Contractor: Aztec Env.	Laboratory ID No.: 783-98010	Date Analyzed: 4/8/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
35 010.034	Mastic Rem. 4th Floor	Marco Pers.	G-43	2.0	7:10	12:00	390	780	100	87	0.003	0.07
36 010.035	"	Marco Pers.	G-45	2.0	14:00	17:15	195	390	36	100	0.007	0.04
37 010.036	"	~~Miguel~~ Edwin Pers	client	2.0	7:10	12:00	390	780	2	100	0.003	<0.01
38 010.037	"	Miguel Pers	client	2.0	14:00	16:00	120	240	1	100	0.01	<0.01

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-98A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/8/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/8/98
Contractor: Aztec Environmental	Laboratory ID No.: 783-98A010	Date Analyzed: 4/9/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
010.039	4th Floor Removal	Marco pers.	G-43	2.0	7:20	12:00	280	560	66	100	0.005	0.05
010.040	"	pers.	G-43	2.0	Faulted	pump						
010.041	"	Miguel pers.	client	2.0	7:00	12:00	300	600	99	100	0.004	0.08
010.042	"	Miguel pers	client	2.0	13:00	17:36	Cassette filter damaged					

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-98A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 1/9/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 1/9/98
Contractor: Aztec Environmental	Laboratory ID No.: 783-98A010	Date Analyzed: 1/10/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
43 010.042	4th Floor cleanup	Marco Pers.	client	2.0	7:10	12:00	290	580	over	rated	0.005	
44 010.043	"	Marco Pers.	client	2.0	13:00	17:15	255	510	56	100	0.005	0.05

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 7838A009	Report No.:	
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/10/98	
Project Site: University Hospital	Analyzed By:	Date Received:	
Contractor: Aztec Env.	Laboratory ID No.: 98A010	Date Analyzed:	

SAMPLE DATA

ANALYTICAL DATA

Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
45	4th Floor	Marco	client	2.0	7:15	11:46	265	530	12	100	0.005	0.04
010.044	Bugout	pers.										

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783 8A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/22/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/22/98
Contractor: Aztec Env.	Laboratory ID No.: 98A010	Date Analyzed: 4/23/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
46 010.095	3rd floor Floor Tile	Marco pers	G-39	2.0	8:45	12:00	195	390	81	100	0.007	0.10
47 010.096	"	Edwin pers	client	2.0	9:00	12:00	180	360	Faul	ty pump	0.007	
48 010.097	"	Marco pers	G-39	2.0	13:00	17:15	255	510	89	100	0.005	0.09

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: [signature]

Analyst(s) Signature: [signature]

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:	
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/23/98	
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/23/98	
Contractor: Aztec Env.	Laboratory ID No.: 783-98A010	Date Analyzed: 4/24/98	

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/cc
49 010.048	4th Floor Floor Tile	Marco pers	G-43	2.0	7:20	11:55	275	550	24	100	0.005	0.02
50 010.049	4th Floor floor tile	AURA Pers	client	2.0	7:10	11:55	285	570	41	100	0.005	0.04
51 010.050	"	~~Aura~~ Aura pers	G-43	2.0	13:00	17:25	265	530	39	100	0.005	0.04
52 010.051	"	Marco	client	2.0	13:10	17:25	255	510	overloaded		0.005	

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature: J. Jernigan

Analyst(s) Signature: J. Jernigan

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100

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PHASE CONTRAST MICROSCOPY
AIRBORNE ASBESTOS SAMPLING AND ANALYSIS FORM

Client: Aztec Environmental	Project No.: 783-8A009	Report No.:
Client Address: Panama City	Collected By: J. Jernigan	Date Collected: 4/24/98
Project Site: University Hospital	Analyzed By: J. Jernigan	Date Received: 4/24/98
Contractor: Aztec Env.	Laboratory ID No.: 98A010	Date Analyzed: 4/28/98

SAMPLE DATA									ANALYTICAL DATA			
Sample Number	Abatement Activity	Sample Location and Description	Pump No.	Flow (L/M)	Time Start	Time Stop	Time (min)	Volume (liters)	Fibers Counted	Fields Counted	LOD	Fibers/ cc
53	3rd floor	Miquel	G-13	2.0	7:15	12:55	340	680	pump	failed	0.004	
010.03X	Piping	pers										

Method: NIOSH 7400
Filter Diameter: 25mm
Sampling Diagram and Calibration Data on Reverse Side

Collector(s) Signature:

Analyst(s) Signature:

DUPLICATE NO.:	BLANK DATA
Fibers Counted:	Fibers Counted:
Fields Counted:	Fields Counted: 100