

**ARLINGTON COUNTY
ENVIROMENTAL SERVICES DEPARTMENT
WATER POLLUTION CONTROL BUREAU
STANDARD OPERATING PROCEDURES**

Contractor Safety Standard

Safety Specialist
Water Pollution Control Bureau

Date:

Approved By: _____
Date: _____

APPLICABILITY

WPCB facilities, a bureau of the Department of Environmental Services. This is a site specific document written for use by the Water Pollution Control Bureau only.

Technical Writer

Safety Specialist, WPCB

I. PURPOSE

The purpose of this standard is to provide minimum guidelines and procedures that will be followed by all Contractors who perform work or contracted services Water Pollution Control Bureau (WPCB) facility and remote WPCB locations (herein after the WPCB facilities). The guidelines outlined in this standard are to ensure the protection and safety of service Contractors, construction Contractors, sub-Contractors, WPCB employees, county employees, citizens, (i.e. any personnel on WPCB property) property, equipment, and anyone who might be affected by the service contracted or construction work being performed at the WPCB.. The Contractor Safety Standard shall be provided to all service and construction Contractors in order to communicate and outline known hazards at the WPCB facilities and to provide information that outlines the WPCB's Safety and

Environmental procedures in order to comply with the following standards: Occupational Safety and Health Administration/Virginia Occupational Safety and Health (OSHA/VOSH) Title 29 CFR 1910, Standards for General Industry, Title 29 CFR 1926, Standards for the Construction Industry, Federal, State and Local laws, applicable national consensus standards as well as Arlington County policies and procedures.

II. SCOPE

This standard applies to all Contractors performing work and/or services at the WPCB facilities. This includes Contractors who through a written contract are performing work or services at the WPCB facilities as well as Contractors working on construction projects (upgrade or expansion) at the WPCB such as the Master Plan 2001 upgrade and expansion project. Contractors bear sole responsibility for the safety of his or her employees. The Contractor must take all steps necessary to establish, administer, and enforce safety rules that meet or exceed the minimum laws, standards and procedures outlined in Section I of this standard. Contractors are also responsible for ensuring that all of their sub-Contractors comply with the requirements outlined within this standard.

III. GENERAL OVERVIEW OF THE CONTRACTOR SAFETY STANDARD

A. HEALTH AND HUMAN FACTOR CONSIDERATION

Contractors must recognize the fact that their employees as well as sub-Contractors often resist following safety and health laws due to scheduling requirements, inconvenience and discomfort sometimes associated with wearing Personal Protective Equipment, and the requirements for specialized equipment. All service Contractors are responsible for meeting the intent of this standard for the work which they were hired to perform in conformance to Section 1 of this standard. Hazardous conditions or practices not covered in an OSHA or VOSH standard may be covered under Section 5 (a) (1) or 5(a) (2) (General Duty clause) of the Occupational Safety and Health Act of 1970 which states, "Each employer shall furnish to each of his

employees employment and a place of employment which are free from recognized hazards that are likely to cause death or serious physical harm to his employees.

B. MINIMUM STANDARD REQUIREMENTS

Listed below are the minimal requirements that will be followed by Contractors in conjunction with; Construction safety plans, where applicable, VOSH laws, County policies and procedures, State and Federal laws as well as applicable National Consensus guidelines. All of the above will be followed in order to ensure that everyone i.e. Contractors, sub-Contractors, facility employees, visitors, citizens on site, equipment and property are protected from hazards. The main sections of the standard are listed below: 1.) Written Contractor Program 2.) General Requirements, 3.) Relationship with WPCB, 4.) Designation of Competent Person(s), 5.) Workplace Inspections, 6.) Basic Safety Rules. 7.) Safety permits and procedures. 8.) Training requirements, 9.) Facility Operations, 10.) Housekeeping and Sanitation, 11.) Maintenance and Inspection, 12.) Storage, 13.) Medical Services and First Aid, 14.) Reporting Accidents and Incidents, 15.) Environmental Issues, 16.) Periodic review and Standard evaluation and 17.) Appendices #1-6 (Appendix #1 – General review of OSHA standards applicable to Contractors, Appendix #2– Contractor Safety Checklist, Appendix #3 – Pre Job Contractor Safety Planning Checklist, Appendix #4 – Instructions for use of Appendix #3 & 4 – Checklists, Appendix #5 – Contact Telephone Numbers and Appendix #6 – Facility Map of the WPCB)

IV. DEFINITIONS

Accident – An unplanned or unforeseen event that may or may not result in physical harm and/or property or equipment damage; any unplanned event which interrupts the normal progress of an activity and is preceded by an unsafe act, unsafe condition or some combination thereof. An accident may be seen as resulting from a failure to identify a hazard or from some inadequacy in an existing system of hazard controls.

Annually – Time period not to exceed 365 days.

ANSI – American National Standards Institute

Approved – Sanctioned, endorsed, accredited, certified or accepted as satisfactory by a duly constituted and nationally recognized authority or agency.

Authorized – A person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite.

Certified or Licensed – A person possessing a license or certification issued by a reputable authority attesting that the person has been trained and/or tested and is qualified to perform specific tasks or operate specific equipment.

Competent Person – This person must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate or correct hazards.

Contractor – One who contracts to do work for another. This term is applicable to any person who enters into a contract, but is commonly reserved to designate one who for a fixed price, undertakes to procure the performance of works or services on a large scale, or the furnishing of goods in large quantities, whether for the public, a company or individual. A Contractor is a person who, in pursuit of any independent business, undertakes to do a specific piece of work for another, using his/her own means and methods without submitting to their control in respect to all its details, and who renders service in the course of an independent occupation representing the will of his/her employer only as to the result of the work and not as to the means of which it is accomplished.

Contractor Employee(s) – A person(s) employed by a Contractor.

Construction – Construction work means work for the creation of a structure, alteration, and/or repair including painting and decorating.

Construction Manager – The Construction Manager is responsible for the implementation of the construction project including all aspects of Contractor management and construction protocols.

Construction Program Management Company – The Construction Program Management Company is the person(s) or company contracted to represent WPCB and manage the facility upgrade and expansion projects conducted at the WPCB facilities and remote locations. They oversee the overall performance of the project including but not limited to budget, schedules, designer and Contractor management, work quality, safety and program communications.

Designated – Means selected or assigned by the employer or the employer's representative as being qualified to perform specific duties.

Designee – A designated or authorized person that has been given the responsibility for acting in another person's place in order to ensure that a task is performed.

D.O.T. – Department of Transportation (Federal agency)

Employee – The person taking direction from the employer. An individual who has an agreement to work for an employer and is compensated by that employer for his/her time and/or effort.

Employer – Employer for the purpose of this standard means Arlington County, Contractors or sub-Contractors working at the WPCB.

EMS – Emergency Management System

Engineer Program Coordinator – The Water Pollution Control Bureau Engineer Program Coordinator is responsible for the coordination, contract administration and negotiations for facility upgrades and/or expansions.

General Contractor – General Contractor fits the description of a Contractor but has responsibility for the entire job or project.

Hazard Analysis /Evaluation – A review or evaluation by a person trained in hazard recognition to evaluate a work area. A Hazard Analysis is performed to identify hazardous conditions and gather data for the purpose of the elimination or control of the hazard.

Hazardous Atmosphere – An atmosphere that is poisonous, corrosive, oxidizing, irritating or otherwise harmful. The atmosphere is likely to cause injury or death.

Hazardous Substance – Any substance that has the potential of causing injury by reason of being explosive, flammable, toxic, corrosive, oxidizing, irritating or otherwise harmful to a person.

Imminent Danger – An impending or threatening situation that is dangerous with an outcome that could be expected to cause serious injury or death to persons in the immediate future unless corrective measures are taken.

Incident – An occurrence, happening or energy transfer that results from either positive or negative influencing events. An incident may be classified as an accident, mishap, or near miss depending on the negative or positive outcome.

IDLH (Immediately Dangerous to Life and Health) – Any atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Lift Stations – Pumping or flow metering stations that are located away or off-site from the main WPCB facility.

MSDS – Material Safety Data Sheets

NIOSH – National Institute for Occupational Safety and Health

OSHA – Occupational Safety and Health Administration.

PFAS – Personal Fall Protection System

PPE – Personal Protective Equipment

Qualified – A person by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work or the project.

Sub Contractor(s)– A person(s) who meets the definition of a Contractor but is only responsible for a portion of the job

Training – Prior to beginning for work at the WPCB all Contractors must be trained regarding all aspects of Contractor protection and applicable safety and health requirements according to Titles 29 CFR 1910 or 29 CFR4 1926 and applicable national consensus standards relevant to the type of work being preformed. (Note the section of this Contractor Safety Standards entitled Training).

VOSH – Virginia Department of Labor and Industry (Virginia Occupational Safety and Health Compliance Program)

WPCB – Water Pollution Control Bureau i.e. facility, lift stations and other remote locations belonging to WPCB facility. .

V. RESPONSIBILITIES

The following responsibilities are assigned to make sure that both management and employees are involved in the Contractor safety process. Managers and employees are encouraged to become familiar with their responsibilities as they will be held accountable for this standard as well as for reporting Contractors who fail to comply

with this standard.

A. RESPONSIBILITIES OF THE BUREAU CHIEF

1. Take the necessary actions to ensure that a Contractor Safety Standard is established and maintained for the Bureau. Support managers and supervisors with resolving problem areas as they pertain to this standard.
2. Make sure that training regarding this Standard is established for all employees to include Contractor hazards and the contents of this standard. Additional training will be provided for those who are required to work directly with Contractors. .
3. Support managers and supervisors through the budgetary and staffing process such that the contents of this standard are implemented and maintained in order to ensure the health and safety of Water Pollution Control Bureau employees as well as Contractor employees while contracted services are being performed at the WPCB facility
4. Shall require that managers, supervisors and crew leaders, or their designees(s) implement, adhere to, enforce, and comply with this policy and report unsafe acts and conditions to the appropriate authorities including the Safety Specialist and WPCB Bureau Chief.
5. Make his best efforts to ensure that all contract documents for contracted or construction services contain the necessary information concerning safety, health and environmental requirements that comply with all aspects of this standard.
6. Make his best efforts to ensure that violations of this standard are addressed in a timely manner when Contractors or their employees fail to adhere to policies, laws and standards outlined within this document.
7. Make his best efforts to coordinate with the Arlington County Purchasing

agent to ensure that the appropriate contract language is included in contract documentation to ensure Contractor compliance.

8. Makes his best efforts to implement, adhere to, enforce and comply with this standard and take the necessary acts to address all unsafe acts, conditions, and violations of this standard.

B. RESPONSIBILITIES OF SAFETY SPECIALIST

1. Assist WPCB management to ensure that a written Contractor Safety Standard is written, implemented and periodically maintained.
2. Provide support and safety expertise to designated WPCB project employees assigned to Contractor or construction projects to ensure the health and safety of all employees at all WPCB locations.
3. Periodically ensure that the Contractor Safety Standard complies with applicable Arlington County policies, County, State, and Federal laws as well as applicable National Consensus Guidelines.
4. Develop training that includes all aspects of the Contractor Safety Standard. Awareness training will be provided to all WPCB employees and additional training provided for those required to work with Contractors as a part of their job function. The Safety Specialist will coordinate, with the appropriate WPCB person who is in responsible charge of the Contractor in order to ensure that Contractors are aware and adhere to appropriate safety training requirements outlined within this standard. Contractor employee safety training is the sole responsibility of the Contractor and must be conducted prior to work beginning at the WPCB facility.
5. Make sure that a hazard analysis of work areas are performed upon request to ensure that known facility hazards are identified prior to the beginning of

Contractor service or work. Communication of this information will be via the person in responsible charge of the Contractor.

6. Make sure that the Contractor Safety Checklist completed by service and construction Contractors are reviewed and that necessary steps are taken to ensure compliance with the WPCB Contractor Safety Standard.
7. Make sure that the Contractor Safety Standard is monitored and that a periodic Standard review is conducted to ensure compliance.
8. Periodically monitor for any changes of County, State or Federal laws and applicable national consensus standards that might require changes in this Contractor Safety Standard. Make sure that any updates or changes are made in a timely manner after the periodic review and communicated to the appropriate employees.
9. Shall inform the Bureau Chief in a timely manner of any violations of this policy that the Safety Specialist has been made aware of.
10. Shall include a review of this policy in all training provided to employees in the New Employee Orientation training.

C. RESPONSIBILITIES OF THE OPERATIONS/MAINTENANCE MANAGERS

1. Make sure that WPCB employees performing job duties requiring them to work with Contractors as a part of their job are identified to the Safety Specialist.
2. Make sure that employees within their sections adhere to all aspects of the Contractor Safety Standard.

3. Make sure that all safety concerns surrounding Contractors are promptly resolved or referred to the Safety Specialist or designee for review and resolution.
4. Make sure that any accidents, exposures or concerns that are communicated to them by employees are reported immediately or within 24 hours to the Safety Specialist or designee so that the appropriate steps such as inspections or hazard analysis can be conducted immediately in order to resolve concerns. In the event that the Safety Specialist is not available during the job the designee will report all accidents, exposure or concerns to the Safety Specialist immediately.
5. Shall be responsible for taking all action necessary to implement and enforce this policy.
6. Shall budget adequate funding for the implementation and maintenance of this policy.

D. RESPONSIBILITIES OF SUPERVISORS

1. Make sure that employees comply with all aspects of this standard.
2. Make sure that any changes in the work place due to contracted services that might pose a health or safety hazard to Contractors or employees are reported to the appropriate Manager, Safety Specialist or designee immediately for proper evaluation and resolution.
3. Report problem areas immediately to the appropriate Manager, Safety Specialist or designee for prompt inspection or resolution prior to allowing employee to enter areas where Contractors are working.
4. Ensure that employees comply with all signs, barricades or warnings

implemented by Contractors to ensure site safety.

5. Monitor and periodically assess Contractors to ensure compliance with this standard and report any violations to the appropriate Manager, Safety Specialist or designee immediately.
6. Monitor and periodically assess the safe use of Contractor equipment by Contractor employees while they are working in areas that are under their supervision.
7. Make sure that WPCB employees do not provide WPCB equipment to Contractors for use under any circumstances, other than emergency equipment such as eyewash facilities, AEDs, and first aid supplies and only in the event of an emergency
8. Ensure that Contractors return work areas to a safe condition upon completion of contracted services before leaving the WPCB work site.

E. **RESPONSIBILITY OF WPCB RELIABILITY ENGINEER,
PLANNERS/OR DESIGNEE/ENGINEERING PROGRAM
COORDINATOR/PROGRAM MANAGERS OR OTHER WPCB
EMPLOYEES REQUIRING CONTRACTED SERVICES**

1. Ensure that all work is planned looking at the safety related aspects of the job. Ensure that the hazards associated with the work that is to be performed are outlined and communicated to the Contractor before work is started.
2. Make sure that Contractors working on jobs are aware that they have responsibility for complying with all aspects of this standard.
3. Make sure that any changes in the work place due to contracted services that might pose a safety hazard to Contractors or employees are reported to the

appropriate Manager, Safety Specialist or designee immediately for proper evaluation and resolution.

4. Report problem areas immediately to the Manager, Safety Specialist or designee for prompt inspection or resolution prior to allowing employees to enter areas where Contractors are working.
5. Ensure that facility employees comply with all signs, barricades or warnings implemented by Contractors to ensure site safety during contracted services or construction.
6. Monitor and periodically assess Contractors to ensure that they are not violating this standard and report any violations to the appropriate Manager, Safety Specialist or designee or WPCB point of contact immediately. In the event that the Safety Specialist is not initially involved, the designee will report all accidents, exposures or concerns to the Safety Specialist immediately.
7. Monitor and periodically assess the safe use of Contractor equipment by Contractor employees while they are working in areas on projects that they oversee.
8. Make sure that WPCB personnel do not provide WPCB equipment to Contractors for use under any circumstances other than emergency eyewash facilities, AED's, and first aid supplies and only in the event of an emergency.
9. Ensure that Contractors maintain housekeeping in such a way as to not pose hazards to facility employees and others.
10. Ensure that Contractors return work area to a safe condition upon completion of work before leaving the WPCB work site.
11. Ensure that safety related paperwork generated by the Contractor is turned in to the safety office in a timely manner for record keeping purposes.

12. Report all instances, which you have been made aware of, concerning the Contractor(s) failure to comply with this standard immediately to the appropriate Construction Management, Safety Specialist or designee for prompt inspection or resolution.
13. Make best efforts to ensure that issues concerning safety and health are addressed in a timely manner between the WPCB Safety Specialist and the designated construction safety employees.

F. RESPONSIBILITIES OF ENGINEER PROGRAM COORDINATOR OR DESIGNEE

1. Make best efforts to coordinate contract administration, negotiations and communications regarding the contract to facility employees to ensure the safety of all employees throughout the construction project.
2. Make best efforts to ensure that all construction contract language and documents contain the necessary information concerning safety, health and environmental requirements that comply with all aspects of this standard.

G. RESPONSIBILITIES OF ALL EMPLOYEES

1. Adhere to all signs, warnings and barricades implemented by the Contractor to ensure facility safety.
2. Ensure that any changes in the facility that occur as a result of, or during work being performed by Contractors that might pose a hazard to anyone is reported to their Supervisor immediately for proper evaluation and resolution.
3. Report all observations of Contractor unsafe acts or conditions immediately to his/her Supervisor for prompt resolution.

4. Report any observations of Contractor unsafe use of equipment, equipment malfunction, need for equipment repair, damage or replacement needs to the supervisor for proper resolution.
5. Do not under any circumstances provide Contractors tools or equipment belonging to the WPCB other than emergency equipment such as eyewash facilities, AED's, and first aid supplies and only in the event of an emergency. Report any request for these items immediately to the WPCB Supervisor.
6. Attend scheduled Contractor training as required by WPCB management.

VI. REQUIREMENTS

A. MINIMUM REQUIREMENTS

- 1.) Written Contractor Safety Standard – The WPCB will implement, maintain, review and update a written Contractor Safety Standard that provides guidance designed to protect workers from known hazards that have been identified in the workplace. Companies who perform contracted work and or services within the WPCB facility or off site locations will adhere to the contents of this Standard as well as all applicable national consensus standards listed in Section I of this standard.
- 2.) Contractor General Requirements – Contractors shall be subject to the OSHA/VOSH provisions outlined in the Contractor Safety Standard which has been prepared for the protection and safety of WPCB employees, other Contractors, property, and anyone who may be affected by work being performed. Contractor work can potentially affect the safety of all employees and property, and for this reason the Contractor Safety Standard shall be provided to all Contractors working at the WPCB. Due to the wide variety of services that Contractors and construction companies could provide while working at the WPCB,, it is not feasible to outline every applicable law, standard and work practice in this document. Contractors bear sole responsibility for the safety of

their employees. Contractors must take all steps necessary to establish, administer, and enforce health and safety rules and regulations that meet or exceed the regulatory requirements of VOSH (Virginia Occupational Safety and Health), OSHA (Occupational Safety and Health Administrator), the DEQ (The Virginia Department of Environmental Quality), Then Virginia Workers' Compensation Commission, all Local, State and Federal laws as well as applicable national consensus Safety and Environmental standards. Contractors are expected to take all steps necessary to establish, administer and enforce safety rules that meet or exceed the regulatory requirements listed above. Hazardous conditions or practices not outlined in a specific VOSH or PSHA standard may be covered under section 5(a) (1), 5(a) (2) i.e. the General Duty clause of the Occupational Safety and Health Act of 1970 which states that "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are likely to cause death or serious physical harm to his employees." Contractors bear sole responsibility for communication and safety-related information and requirements to sub-Contractors working under their direction. Contractors shall assure that their sub-Contractors comply with the requirements outlined herein.

- 3.) Relationship with WPCB – All agencies, firms or companies conducting work at the WPCB facility must comply with the requirements of this standard. Contractors shall adhere to all safety requirements outlined in purchasing documentation. The agency, firm or company shall maintain appropriate insurance, including general liability, auto liability and Worker's Compensation insurance. Verification of insurance shall be sent to the Arlington County Purchasing Agent prior to the start of work. The Arlington County purchasing agent can be reached at 703-228-3410.
- 4.) Designation of Competent Person – The designation of a competent person will be required when the job consists of work that meets the definition of construction as outlined in 29 CFR 1926. The selection of a Competent Person will be made in accordance with the requirements outlined in 29 CFR 1926.32. The competent person must have the ability and authority to address and remedy hazards that are identified in a timely manner.

- 5.) Workplace inspections – An assessment of all areas and types of equipment currently being utilized for contracted services is ongoing and may be conducted while the Contractor is working on site. The duration of inspections will depend upon the type of work being performed, the hazards associated with the work and the amount of time that the Contractor will be working at the WPCB. Inspections may be conducted upon request when non-compliance to this standard is demonstrated or upon request by any affected employee. The purpose of this assessment will be to identify possible Contractor hazards that might exist in the workplace. The hazard analysis must be conducted by a person trained to recognize hazards and must be documented. The hazard analysis must adequately assess the potential for the use of Administrative or Engineering controls and must be conducted prior to recommendations being made for the use of Contractor protection. Contractors must be notified of deficiencies immediately.
- 6.) Basic Safety Rules – An employee of a contractor may be temporarily or permanently removed from the WPCB for the following reasons:
- Possession or use of alcoholic beverages or related drugs not prescribed by a physician
 - Being under the influence of prescribed or non prescribed medications that could influence behavior or equipment operation
 - Not using appropriate PFAS (Personal Fall Protection System)
 - Failure to wear the appropriate PPE. The following PPE (Personal Protective Equipment) is required at all time on the WPCB site:
 - Hard Hat
 - Steel Toed Boots
 - Reflective Vest
 - Safety Glasses with Side Shields

Note: In addition Construction Contractor employees will also be required to wear:

- Long Pants
- Shirts that cover the shoulders

A hazard assessment may indicate the need for additional PPE. All designated PPE must be worn by Contractors and their employees.

- Fighting or horseplay
- Possession of explosives, firearms, ammunition, or other weapons
- Deliberate violation of safety or security rules
- Ignoring “Danger” “Caution” or other safety related signs or barricades
- Unauthorized removal or destruction of a safety barricade, guardrails, warning signs, fall protection, or other warning devices intended to protect WPCB employees, property, or others on the WPCB site.
- Illegal dumping, handling or disposal of hazardous chemicals or materials
- Destruction or removal, without written permission of any property belonging to WPCB, WPCB employees or other Contractors or their employees
- Intimidating, threatening, harassing impeding or interfering with an inspector, police officer, security officer, WPCB, VOSH Compliance Officer, state or federal employee or designated representative of any of these agencies
- Using emergency exits other than for emergencies
- Misuse of fire prevention and protection equipment
- Not maintaining an orderly and clean work area
- Violating any Arlington County policy, Local, State or Federal safety and

environmental law.

- Operation of equipment or vehicles without mandated State license, endorsements or equipment specific training.
- Failure to notify Miss Utility of Virginia and keeping tickets current. Miss Utility of Virginia can be reached at 1-800-552-7001.

7.) Safety Permits and Procedures – There are no operations that Contractors or sub-Contractors might perform that could represent a hazard to their employees, WPCB employees and others at the facility. Approval must be obtained through the WPCB Safety Specialist or designee, Shift Supervisor, EMS Administrator, Contract Administrator, WPCB Planners or other WPCB designated points of contact before the following work is to begin:

- Working on fire protection/detection systems
- All hot work including but not limited to burning, welding, cutting or soldering requires a hot permit
- Working on electrical, steam, chilled water systems, chemical systems and piping, chemical storage containers
- Working on or near energized systems
- Working on or moving emergency equipment (fire extinguishers, first aid kits, etc.) provided by WPCB
- Installing a temporary electrical service or system
- Working with hazardous chemicals (including solvents and paints)
- Generating Hazardous Waste (such as waste oil)
- Working with hazardous chemicals
- Using powder actuated tools

- Using a gas, diesel or LP (propane) powered engine indoors
- Operating a powered vehicle or self-propelled work platform
- Excavating/trenching
- Using radioactive source or conducting field radiography (x-ray)
- Working with asbestos-containing materials
- Working with lead-containing materials
- Working with Silica containing materials
- Working on security systems
- Working with compressed air/gases
- Using a laser
- Working on a fume hood
- Working on a solvent storage cabinet
- Working on heating, ventilation, or air conditioning systems
- Working on a roof
- Lifting or hoisting with cranes, derricks, hoists or helicopter (Note construction project may require a 'Critical Lift Plan' before work begins)
- Performing blasting operations
- Confined Space Entry
- Working in close proximity to basins, tanks, and any other space containing large amounts of liquid

8.) Training Requirements – All contractors, sub-Contractors and their employees

must be trained, according to OSHA and VOSH requirements, in general safety relative to the jobs that they are expected to perform while working at the WPCB. This training must be conducted and documented prior to employees beginning work at the WPCB facility. Training regarding specific hazards must be provided to anyone working at the WPCB facility prior to the beginning of work on site. Anyone required to operate specialized equipment must be certified to do so. Specialized equipment includes but is not limited to all heavy equipment such as cranes, scrapers, bull dozer, track machines, front end loaders, bo cats, fork trucks, stinger cranes and back hoes. A copy of the training certification must be current and available upon request by WPCB management or designee. Contractors working during a construction project at the WPCB must conduct the above safety training as well as any additional instruction that is defined in the training portion of the Contractor specifications or documentations. The use of any machinery, tool or equipment by a person who has not been trained in accordance with applicable requirements of the VOSH (Virginia Occupational Safety and Health) or OSHA (Occupational Safety and Health Administration) is prohibited.

- 9.) Facility Operations – Care must be observed to not disrupt facility operations or cause conditions that could violate the WPCB Department of Environmental Quality Virginia Pollution Discharge Elimination System permit. The following rules apply for working on any system that impacts the operation of the facility:
- Only trained WPCB Operations employees may shut down, start up, or adjust equipment and facilities that impact the operation of the facility.
 - Contractors must notify the WPCB supervisor or designated persons and must coordinate with appropriate WPCB Operations employees in advance of the need for shutdowns and startups of any facility system.
 - Lock Out and Tag Out of facility systems must be coordinated with the WPCB supervisor or designated Operations employees
 - The attachment and disconnection of Back Flow Prevention devices must be authorized and coordinated with the WPCB Supervisor or designated

Operations employees

- Contractors must notify the WPCB Supervisor or designee of suspected or actual hazardous materials or substances observed or discovered in the course and scope of their work

10.) Housekeeping and Sanitation – Contractors must maintain good housekeeping while working on WPCB facilities at all times. Poor housekeeping at a jobsite may lead to increased potential for safety hazards and an increased incidence of accidents and chemical spills. Contractors are expected to comply with 29 CFR 1926.25, and must:

- Keep all work area neat, clean, orderly and free of excess trash and debris
- Keep form and scarp lumber with protruding nails and all other debris clear from work areas
- Combustible scrap and debris shall be removed on a regular basis to prevent safety and fire hazards from occurring.
- Containers shall be provided for collection and separation of all refuse. If the Contractor is utilizing the Arlington Water Pollution Control Plant waste conveyance system per the Contract, the Contractor shall provide appropriate separate waste containers to segregate the refuse into the following categories: metals, glass, plastic, clean paper, and other non-hazardous materials. No hazardous materials will be disposed of via the Arlington Water Pollution Control Plant waste conveyance system by the Contractor.
- Containers that comply with OSHA/VOSH standards shall be provided and used for flammable or harmful substances. Containers must be properly labeled.
- Wastes shall be disposed of at frequent intervals to prevent safety and fire hazards from occurring.
- Lay down/Staging areas shall be orderly and free from tripping hazards

- Impeding access to walkways, stairs, driveways, or roadways can only be done with the permission of the Safety Specialist and the WPCB Bureau Chief and designee. Fire exits can not be impeded or blocked under any circumstances.
 - The Contractor shall provide adequate water and sanitation facilities for Contractor employees during major construction. These provisions will be outlined in the construction contract. Service Contractors will be permitted to utilize water and sanitation facilities within WPCB facilities.
- 11.) Maintenance and Inspection – All Contractor employees required to wear or use safety equipment must conduct visual inspections prior to the wear or use of the equipment. The purpose of this inspection is to identify the need for repairs of faults/damage that could hamper or impair the use of the equipment or cause accidents. The employee is responsible to report maintenance and repair concerns to their supervisor immediately. Equipment must be immediately replaced with the same make, model and size or equivalent equipment. The employee will not wear or use equipment that they identify during the inspection process as needing repair or being unsafe.
- 12.) Storage of equipment – Contractor equipment must be stored in such a way as to ensure that it remains clean and ready for use when needed. It should also be stored in such a way as to not cause an unsafe condition and to ensure that no one else is able to use or misuse the equipment. Lay down areas must be kept neat and items that must be stacked and stored must be stored at a minimum of 12” off the ground.
- 13.) Medical Services and First Aid – All Contractors performing work at the WPCB are to ensure that Medical and First Aid Services are available to their employees in the event that their employee(s) are involved in an accident. All aspects of Section 17, Appendix 1 – Item 17.11 must be followed.
- 14.) Reporting Accident and Incidents – Contractors must report all accidents and incidents that have or have the potential to cause injury, illness, property loss or damage to the appropriate WPCB personnel immediately or within 24 hours

according to Section 17, Appendix 1 – Item 17.28.

- 15.) Environmental Issues – All applicable Environmental regulations and standards must be followed while work is being performed at the WPCB facilities. All spills must be reported immediately to the WPCB Supervisor, EMS Administrator, Safety Specialist or WPCB designee. Clean up and disposal of hazardous waste must be coordinated with one of the WPCB employees listed above.
- 16.) Periodic Standard Review and Evaluation – The Safety Specialist or WPCB designee will review the requirements of this standard periodically and when changes occur that might impact the current Standard. Any changes in the Standard will be identified and communicated to all employees who are impacted by this Standards within the Bureau.

B. APPENDICES TO STANDARD (1–6)

Appendix #1	Section 17	Pages: 27–54
General Review of OSHA standard applicable to Contractors		
Appendix #2		Pages: 55–59
Contractor Safety Checklist		
Appendix #3		Page: 60
Pre Job Contractor Safety Planning Checklist		
Appendix #4		Page: 61
Instructions for thre use of Appendices #2 & 3		
Appendix #5		Pages: 62–63
Contact Telephone Numbers		
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VII. WORKPLACE HAZARD ASSESSMENT

A work place hazard assessment is a qualitative evaluation of potential hazards in all elements of a system i.e. employees, equipment and facilities. For the purpose of this standard an assessment will be conducted with a focus on potential Contractor hazards. The results of these assessments will be used to recommend Administrative and Engineering Controls first. In the event that these controls will not adequately reduce facility hazards, recommendations by Contractors for their staff will be required to supply and enforce the use of PPE that provides adequate protection against the hazards their employees will be exposed to.

VIII. HAZARD PREVENTION AND CONTROL

Every effort will be made to prevent and control Contractor hazards by the use of Administrative and Engineering controls. Guidance from other VOSH standards including but not limited to Hazard Communication, Confined Space, the Control of Hazardous Energy and various equipment standards will also be used to assist in this process. However the controls utilized must minimize and reduce identified hazards to acceptable levels as noted in OSHA/VOSHA, NIOSH, ACGIH and other applicable national consensus standards. The WPCB will inform the Contractor of known hazards in work areas without the hazards generated by the performance of the task(s). The Contractor will determine the additional hazards in work areas based on the performance of the task(s)

IX. RECORDKEEPING

Recordkeeping for all aspects of the Contractor Safety Standard shall be maintained by the Safety Specialist or WPCB designee. Records will include the following:

- Completed – Contractor Safety Checklist by companies

- Completed – Contractor Safety Planning Checklist
- Completed – Contractors Confined Space Permits
- Documentation of all on site Contractor accidents
- List of Contractors, subs, consultants, etc who are anticipated to be working on site (needs to be submitted prior to Contractor proceeding with work)
- Material Safety Data Sheets for chemicals used by Contractors (needs to be submitted prior to proceeding with work)

These records will be maintained in accordance with OSHA/VOSHA recordkeeping requirements.

The above noted information must be provided to the Safety Specialist or WPCB designee prior to or immediately after completion of the work element.

X. SOURCES INFORMATION FOR STANDARD

- Local, State, and Federal Environmental Regulations
- Local, State and Federal Occupational Safety laws including OSHA/VOSH –
- Title 29 CFR 1910 and 1926
- Applicable national consensus standards

SECTION 17 APPENDIX 1 SAFETY STANDARD SUMMARY

17.1 – Flammable and Combustible Liquids

- Flammable and combustible liquids shall only be stored in accordance with OSHA 29 CFR 1910.106. Flammable and combustible liquids must be stored in approved and labeled containers
- Flammable and combustible liquids must only be stored in appropriate quantities for the job site use.
- Plastic gasoline cans are not allowed on site.
- Containers must meet all qualifications listed in OSHA 29 CFR 1910.106.
- Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas as well as where large amounts of flammable materials are stored
- Flammable liquids shall be dispensed through grounded and bonded containers.
- Flammable and combustible liquids must have appropriate containment.
- Flammable and combustible liquids can not be stored near doors that would be used for emergency exits or in egress areas.
- Storage locations shall have at least one approved portable fire extinguisher that is appropriate for the materials that are being stored and any other flammable materials or ignition sources that are present in the storage area.

17.2 – Liquefied Petroleum Gas (LP Gas)

- Storage of LP Gas within buildings is prohibited.
- Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.
- All cylinders shall meet DOT (Department of Transportation) specifications.

- Every container and vaporizer shall be provided with one or more approved safety relief valves or devices.
- Containers shall be placed upright on firm foundations or otherwise firmly secured.
- Portable heaters shall be equipped with an approved automatic device to shut off the flow of gas in the event of flame failure.
- Storage locations shall have at least one approved portable fire extinguisher.

17.3 - Compressed Air Tools

Must comply with 29 CFR 1910.179

- Pneumatic power tools shall be secured to the hose or whip in a positive manner to prevent accidental disconnection.
- Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled.
- The manufacturer's safe operating pressure for all fitting shall not be exceeded.
- All hoses exceeding 1/2- inch diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
- Damaged hoses shall not be used and must be removed from service immediately.

17.4 - Compressed Air

- Compressed air used for cleaning purposes must be less than 30 P.S.I.
- Compressed air for cleaning will only be used with effective chip guarding and personal protective equipment.
- Compressed air is NOT to be used on any individual for cleaning, dusting off clothing, or any other purpose.

17.5 - Compressed Gas Cylinders

Compressed gases can pose a severe hazard. Contractors must take the following measures for their protection and the protection of others:

- Valve protection caps must be in place when compressed gas cylinders are transported, moved, or stored.
- Close cylinder valves and replace valve protection caps when work is complete and when cylinders are empty or moved.
- Secure compressed gas cylinders in an upright position in a welding cart or to a solid object (using chains, straps, or a rigid retaining bar).
- Secure compressed gas cylinders on an approved carrier in an upright position while being transported. Cylinders shall only be moved with suitable hand truck, forklift truck, cylinder pallet system or by vehicles that are in compliance with D.O.T., OSHA/VOSH standards. The cylinders must be secured to the device or vehicle in such a way as to guard against dropping or permitting containers to violently strike against each other or other surfaces. Personnel who handle containers must be trained in the safe handling and storage of compressed gasses in containers.
- Keep cylinders at a safe distance or shielded from welding or cutting operations.
- Do not place cylinders where they can contact an electrical circuit. Do not hang welding leads or electrical cords from cylinders.
- Keep oxygen and flammable gas regulators in proper working order and a wrench in position on the acetylene valve when in use.
- Oxygen and flammable gas cylinders in storage must be separated by 20 feet or a 5 foot high fireproof barrier having a fire-resistance rating of at least one-half hour. Cylinder storage is addressed in 1910.253 (b)(2)(iv) for General Industry and 1926.253 (b)(4) for Construction. Keep cylinders a safe distance from any heat, flame, and/or spark producing activities.
- If a leak develops in a cylinder and it cannot be immediately corrected, move the cylinder to a safe location outdoors. Away from sources of ignition, fuel, and oxidizers and slowly empty. This must be done a safe distance away from flammable or combustible materials, confined spaces, and ignition sources. Contractor shall follow all manufacturer recommended procedures for handling leaking cylinders.
- Use only approved spark igniters to light torches. Matches or cigarette lighters are strictly prohibited.

- Cylinders must not be taken into or stored in confined spaces, including gang boxes and office/storage trailers.
- Store hoses and regulators according to OSHA, VOSH, and applicable National Consensus Guidelines.
- Contractor shall properly store and secure all cylinders according to OSHA, VOSH, and applicable National Consensus Guidelines in order to prevent unauthorized personnel from accessing the cylinders. In addition, the partially filled or empty cylinders that will not be utilized within 24 hours must be removed from the job site.

17.6 - Control of Fugitive Emissions

The Contractor shall take all reasonable precautions necessary to control fugitive emissions from the job site. Fugitive emissions include, but are not limited to: nuisance dust, chemical odors, vapors, gases, and hazardous materials (such as lead dust or asbestos).

Where the product(s) or material(s) to be used by the Contractor has a permissible exposure limit (PEL) established by OSHA or VDLI, the Contractor shall take all reasonable steps to maintain exposures below the PEL. Contractor employees, WPCB employees and the public must be protected from exposure to product or material. Where products or materials may cause exposure, the Contractor shall monitor, or shall contract to have monitored, work area exposure conditions. Monitoring shall occur, at a minimum, prior to, during, and after the start of work and whenever there is a change in procedure, process, or chemical or material used. If exposures can not be maintained below the PEL, the Contractor shall restrict access to all areas where exposures exceed the PEL to authorized employees only who have been provided the required PPE for the operation. Safety Specialist or designee shall be notified if the potential exists for the PEL to be exceeded.

17.7 - Pest Control

The Contractor shall not use any insecticide/pesticide products on WPCB facilities unless such activities are part of contracted work, workers are specifically trained and licensed to use/apply the product and prior approval for use has been obtained from the WPCB EMS administrator, Safety Specialist/designee, and the Operations Manager/designee (all three are required). The Pest Control Contractor shall provide a copy of the MSDS for any chemicals to be used for Pest Control at the WPCB. Care shall be taken by the Contractor to ensure that no persons are exposed to insecticide/pesticide products while pest control work is being performed at WPCB facilities. Contractors must notify the WPCB designated contact person, designee or the Shift Supervisor immediately when his/her employees see evidence of cockroaches, rats, mice, ants or other pests during the course of their work. Contractors must ensure that they perform their on-site operations in a manner that minimizes the potential for pest and insect infestation including, but not

limited to, potential, maintaining housekeeping on the project site, utilizing rodent-proof trash receptacles and securing door/window/wall penetrations and other access points. In addition, the Contractor shall take all necessary measures to prevent the insecticide/pesticide from entering the process streams in the WPCB facilities unless the process stream is the prior determined target for the application of the insecticide/pesticide. Also, the Contractor shall take all necessary measures to prevent the insecticide/pesticide from entering the storm drainage system and the receiving waters.

17.7 - Herbicides

The Contractor shall not use any herbicide products on WPCB facilities unless such activities are part of contracted work, workers are specifically trained and licensed to use/apply the product, and prior approval for use of the product has been obtained from the WPCB EMS administrator, Safety Specialist/designee, and the Operations manager/designee (all three are required). The Herbicide Control Contractor shall provide a copy of the MSDS for any chemicals to be used for plant control at the WPCB. Care shall be taken by the Contractor to ensure that no persons are exposed to herbicide products while plant control work is being performed at WPCB facilities. In addition, the Contractor shall take all necessary measures to prevent the herbicide from entering the process streams in the WPCB facilities unless the process stream is the prior determined target for the application of the herbicide. Also, the Contractor shall take all necessary measures to prevent the herbicide from entering the storm drainage system and the receiving waters.

17.8 - Air Emissions

Contractors must ensure compliance with all applicable local, state, and federal air emissions regulations pertaining to the operations of their on-site equipment.

17.9 - Combustion Units

Combustion units include, but are not limited to, boilers, heaters, emergency generators and kilns. All Contractors must immediately report the following to the WPCB designated contact person, designee or the Shift Supervisor.

- Any installation, maintenance or repairs to a combustion unit that could result in a change in maximum heat input valve or overall emissions (e.g. burner replacement or fuel conversions)
- Any conditions discovered which could have resulted in an increase on air pollutant emissions.
- Prior to beginning work on any combustion unit, the Contractor must notify the

WPCB designated contact person

17.10 - CFC-Containing Unit

CFC containing units include those containing any ozone depleting refrigerants including, but not limited to, Chloro-fluorocarbons (CFC), Hydro chloro-fluorocarbons (HCFC) and Halon. Contractors shall immediately notify the WPCB designated contact person, designee or the Shift Supervisor whenever they become aware of any unintentional or intentional release of CFC's above de-minims levels as established by EPA regulations. The intentional release of CFC's and Halon is prohibited.

Contractors must immediately notify and provide documentation to the WPCB designated contact person, designee or the Shift Supervisor whenever:

A leak rate equals or exceeds the limits established in 40 CFR part 82, OSHA, VOSH, General Consensus Guidelins, or other applicable laws and/or regulations.

Contractors must provide the following documentation to the WPCB designated contact person, designee or the Safety Specialist:

- EPA certifications for any re-claimers to which CFC products evacuated from WPCB systems are to be sent.
- Certifications for any CFC recycle/recovery equipment to be use for WPCB.
- Technician Certifications
- Service records for all units containing greater than 50 pounds of refrigerant. Records must include the date and type of service and the type and quantity of refrigerant added.

17.11 - Medical Services and First Aid

- A person(s) employed by the Contractor who is trained to render First Aid and CPR must be on site or, in the absence of an infirmary or onsite medical employees, a clinic or hospital in near proximity to the facility must be designated for treatment of injuries sustained by Contractor employees.
- Adequate first aid supplies, based on information contained within American National Standard (ANSI) Z308.1.1998 "Minimum Requirements for Workplace First-aid Kits", are to be provided by the Contractor for their employees.

- Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. WPCB has emergency showers located throughout the facility that the Contractor is permitted to use in emergencies. The Contractor and the WPCB shall verify, together at the same time, that the emergency showers and eyewashes are properly operational prior to beginning work.
- WPCB has 6 AED's, Phillips Heart Start defibrilators, located on site. Contractors must contact the WPCB Shift Supervisor or Safety Specialist/desginee immediately if ones of these units is needed or activated.

17.12 - Hand and Power Tools

- Electric power operated tools shall either be approved double-insulated, or be properly grounded, and used with ground fault circuit interrupters when used in damp or wet areas.
- Only authorized and properly trained employees shall use power tools.
- Powder actuated tools must only be used by trained operators and warning signs posted in all areas affected by the noise of the nail gun.
- Wrenches shall not be used when the jaws are sprung to the point slippage occurs.
- Impact tools shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

17.13 - Confined Spaces

ALL CONFINED SPACES IN THE WPCB FACILITY ARE 'PERMIT REQUIRED'

The Contractor has responsibility to implement and maintain its own Confined Space Entry Program, including a written program, and a provision for emergency rescue. The Contractor can designate rescue to be done by the Arlington County Fire and Rescue Department prior to beginning work. The Arlington County Fire and Rescue Department can be contacted by dialing 911 and

requesting Technical Rescue. The Contractor shall perform confined space entry in accordance with the OSHA 29 CFR 1926.20 and/or 1910.146 as applicable and Virginia Department of Labor and Industry (VDLI) requirements. The Contractor's written program shall be made available to the WPCB Safety Specialist or the WPCB designated contact person or designee for review upon request.

When the WPCB arranges to have a Contractor perform work that involves entry into a 'Permit-Required' confined space, the WPCB designated contact person or designee will:

- Inform the Contractor that the workplace contains 'Permit Required' confined spaces and that entrance into permit spaces are allowable only through compliance with the above mentioned regulations.
- Apprise the Contractor of the elements, including the hazard(s) identified and the reason for why the space is a confined space and a permit is required for entry.
- Apprise the Contractor of any precautions or procedures that WPCB has implemented for the protection of WPCB employees in or near 'Permit Required' spaces where Contractor employees will be working.
- Debrief the Contractor at the conclusion of the entry operations regarding the permit space program followed and any hazards confronted or created in permit spaces during entry operations.
- The Contractor must provide a copy of the permit for the entry into the space to WPCB designated contact person or designee who will forward the copy to the Safety Specialist.

Each Contractor who is retained to perform work that will require permit space operations shall:

- Coordinate entry operations with the WPCB designated contact person or designee whether or not both the Contractor and WPCB employees will be working in or near the permit spaces.
- Inform the DES Safety Specialist/designee in writing of the permit space program the Contractor will follow and provide a copy of the Confined Space Entry program for review at least one month prior to performing any Confined Space Entries.
- Inform DES Safety Specialist/designee of any hazards confronted or created in permit spaces during operations.
- Inform the WPCB Safety Specialist/designee in writing of the rescue services/team they will be using during entry (if Arlington County Fire and Rescue are to be used

outline how they will be contacted immediately for notification of an emergency. i.e. cell phone or other method). Notification of the Safety Specialist or WPCB point of contact shall also be made in conjunction with the 911 call.

- Provide a copy of the canceled permit(s) to the WPCB Safety Specialist or the WPCB point of contact at the conclusion of entry operations.

17.14 - Ladders

- The use of ladders with broken or missing rungs, steps, broken or split side rails or with other faulty or defective construction is prohibited.
- When ladders with such defects are discovered they shall immediately be withdrawn from service.
- Portable ladders shall be placed on a substantial base at a 4 to 1 pitch, have clear access at top and bottom, extend a minimum of 36 inches above the landing, or where practical, be provided with grab rails and be secured against movement while in use.

No portable metal ladders will be permitted for For any type of work.

- Weight limits of ladders shall not be exceeded.
- Job-made ladders shall be constructed for their intended use. Cleats shall be uniformly spaced, 12 inches, top-to-top.
- Except where either permanent or temporary stairways or suitable ramps or runways are provided, ladders shall be used to give safe access to all elevations.
- All users of ladders shall be properly trained and documented by the Contractor.
- Ladders shall be inspected periodically by the Contractor and removed promptly should any defects be found.

17.15 - Powder-Actuated Tools

Powder-actuated tools can pose many hazards; therefore their use will not be permitted in WPCB facility buildings without approval of the WPCB Safety Specialist or designee. In addition:

- Contractor employees who operate, load, maintain, etc. powder-actuated tools must be properly trained in their use as specified by the manufacturer.

- Each powder-actuated tool must be stored in its own locked container when not being used.
- A sign of at least 7 inches by 10 inches with bold face type reading “POWDER-ACTUATED TOOL IN USE” must be conspicuously posted in the area where the tool is being used and at all entrances immediately adjacent to the work area.
- Powder-actuated tools must be left unloaded until they are ready to be used.

17.16 - Scaffolds

- Contractors shall comply with 29 CFR 1926, Subpart L on scaffolding and 29 CFR 1910.28.
- Access to scaffolds shall be restricted to authorized employees only, especially after work hours.

17.17 - Railings

- A standard railing used to protect employees from falls shall consist of top rail, intermediate rail, toe board, and posts, and have a vertical height of 42 inches from upper surface of top rail to the floor, platform etc.
- The top of a railing shall be smooth-surfaced, with strength to withstand at least 200 pounds. The intermediate rail shall be approximately halfway between the top rail and floor.
- A stair railing shall be of construction similar to a standard railing, but the vertical height shall be no more than 34 inches, or less than 30 inches from upper surface of top rail to surface of tread in line with face or riser at forward edge of tread.

17.18 - Fall Protection

Contractors are responsible to comply at a minimum with the following regulations pertaining to fall protection in the workplace as it applies to their work at WPCB facilities:

- 29 CFR 1926 Subpart M – Fall Protection
- 29 CFR 1910.23 – Guarding Floors, Wall Openings and

Holes

- Reasonable fall protection shall be provided to protect employees from accidental falls associated with floors, platforms, scaffolds, guardrails, physical barriers, elevated work locations, trenches and excavations.
- Fall protection devices must be rated for industrial use and must be used according to the manufacturer recommendations.
- Standard guardrails must be provided for work locations 6 feet or more above the adjacent level per 29 CFR 1926.500 and personal fall protection as required.
- All employees working at unguarded locations above 6 feet in construction (10 feet on scaffolds) must be protected by properly wearing approved fall protection equipment including safety harnesses and life lines as specified in 29 CFR 1926.500.
- Protection for floor openings, wall openings and holes are to include railing and toe boards as outlined in 29 CFR 1910.23.
- All employees required to wear approved fall protection devices must be properly trained concerning the need for and purpose of the protection. They must also be instructed in the proper use, care, and storage of the equipment and shall demonstrate that they know, understand and can use the fall protection devices properly.
- Contractors must maintain guardrails, mid rails, and toe boards located at WPCB facilities unless removal is approved by the WPCB Safety Specialist or WPCB designee as part of a contract. An inspection to ensure the proper replacement of any of these items removed for service or work must be conducted upon completion of the job and before the Contractor leaves the facility. Employees working in or entering areas where the removal of guardrails, mid rails and toe boards have occurred must be protected at all times. Communications such as signs and barricades must be used.
- Contractors must cover all open holes, trenches, or excavations into which WPCB employees or others may fall and/or have guardrails, mid rails, toe boards installed around them.
- Open trenches and areas must be protected such that people can not accidentally walk into the trench.
- Materials used for barricades or railings must be substantial and act as a barrier such as to restrict a person from access to an area. Materials such as wood, pipe, angle iron and concrete jersey barriers should be used. Snow fencing or the equivalent and tape

are not acceptable. 'Caution' and 'Danger' tape are only used to communicate hazards and are not substantial enough to act as a barrier or prevent access.

- Contractor's must provide all employees with exposure to fall hazards personal fall protection equipment or other hazard control measures listed within the fall protection standard and ensure their proper use.
- Contractors must ensure that fall related hazards are thoroughly communicated to Contractor employees, sub Contractors and anyone who might be exposed. The communication must be adequate for the hazard.

17.19 - Hot Work (Welding, Brazing, Cutting)

Contractors performing hot work shall maintain a 'Hot Work Permit' program and employee training program that meets the requirements in 29 CFR 1926.352, 1910.251, ANSI Z49.1-88 and NFPA 51B. Examples of hot work include, but are not limited to:

- Use of open flames.
- Compressed gasses or supplied fuel burning.
- Brazing, cutting, grinding, soldering, thawing pipe, torch applied roofing, and welding.

Contractors must obtain a permit for hot work activities from the designated WPCB contact person for each separate work activity and ensure that all conditions of the permit are met at all times. The permit must be submitted to the WPCB Safety Specialist or WPCB designee prior to the start of any welding/cutting/brazing work. (See Section VI-A, #7, Pages 18 and 19 of this standard).

The Contractor Must:

- Request the initial permit and receive the permit before beginning the Hot Work.
- Post a copy of the Hot Work permit at entrances to the Hot Work area.
- Provide a copy of all canceled permits to the WPCB designee or Safety Specialist upon completion of the work.
- Remove combustible materials from the area before beginning work or if this is not possible, protect combustible materials so that they will not be ignited
- Take the necessary actions to protect oxygen/acetylene hoses from conditions that

could cause damage to them.

- Install anti-flash back (safety/check) valves in both the oxygen/acetylene hoses at the regulator.
- Shield adjacent areas with welding partitions.
- Have a “Fire watch”, i.e. a second person standing by, at the location of the hot work, with an approved fire extinguisher for welding and burning operations and that is appropriate for the material in the area in accordance with OSHA/VDLI regulations and permit requirements. This person should remain in the area for a minimum of 30 minutes after the hot work is completed to ensure the site is cold.

17.20 - Cranes and Rigging

Each crane, rigging, or hoist brought onto WPCB facilities must have an annual inspection performed by a certified testing agency. All documentation, including certifications, log book, must be provided to the Safety Specialist/WPCB designee before operations begin on the site and when new and offsite equipment is brought onsite.

All operators must be fully trained, certified and have a license if applicable, for the operation of the equipment they will be using on WPCB facilities. Training records shall be provided upon request.

Employees who are not appropriately trained or licensed for using equipment (cranes, hoists, and rigging equipment) that is to be utilized on WPCB facilities are prohibited from operating or using this equipment.

All critical lifts must be planned and documented with a ‘Critical lift’ plan outlining the means and methods to protect employees, property and operations from accidents.

The operator is responsible for the proper placement of the crane in relationship to the load to be handled and the landing area so as to obtain the best rated lift capacity.

The operator is not to override crane safety devices and is responsible for maintaining appropriate clearances around the crane.

Employees operating cranes shall:

- Comply with the manufacturer’s specifications and limitations for hoists.
- Never move suspended loads directly over employees.

- Have current information concerning rated load capacities, recommended operating speeds, and special hazard warnings or instructions posted on cars and platforms.

17.21 - Hazard Communication

The Contractor is responsible for developing, implementing and maintaining a Hazard Communication Plan that complies with 29 CFR 1910.1200.

The Contractor shall maintain, on site, Material Safety Data Sheets (MSDS's) for all chemicals used or stored on the job site as required by VDLI/OSHA regulations. The Contractor shall provide copies of MSDS's to the WPCB Safety Specialist or designee upon request. All Contractors shall:

- Ensure that all containers that are brought onto WPCB facilities for the storage of hazardous chemicals are labeled and inspected in accordance with all applicable regulations.
- Contact the WPCB EMS Administrator, Safety Specialist or designee, to ensure that manifesting, storage, the proposed disposal method and disposal site meet regulatory compliance when there are instances that hazardous waste disposal manifests are required by regulations
- The contractor shall notify the Environmental Management System administrator, Safety Specialist, and Household Hazardous Materials coordinator of incidents of the discovery or generation of hazardous materials and also inform the above noted personnel at least 30 days in advance of the shipping date for the disposal of solid materials.
- The Contractor shall supply a legible copy of the properly filled out and partially completed waste manifest (having signatures of the generator and transporter) to the EMS Administrator or WPCB designee within 24 hours of when the material was removed from WPCB facilities.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters, and the TSD (treatment, storage, and disposal) facility) upon receipt of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon proper disposal of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.

- The Contractor shall properly and safely dispose of all hazardous chemicals that it brings onto WPCB facilities.
- The Contractor may request and review Material Safety Data Sheets for any chemical encountered on WPCB facilities during the performance of facility work. Requests should be made through the Safety Specialist at (703) 228-6834 or the WPCB Shift Supervisor at (703) 585-6851. The WPCB chemical list is available upon request through the Safety Specialist at (703) 228-6834

17.21 – A Other Hazardous Materials

Sludges (non-stabilized biosolids), wastewater, and plant process liquids are a hazardous material and appropriate PPE should be worn when handling these materials. Discharging any materials into nearby streams or storm sewers is prohibited unless pre-approved by the EMS Administrator, WPCB Supervisor, Manager and the Bureau Chief.

The Contractor shall post at all entry access ways warnings if lasers are either being or intended to be used.

17.22 – Excavations and Trenches

The Contractor shall coordinate excavating and trenching work with the WPCB Shift Supervisor, designee or Safety Specialist.

The design of sloping and benching systems, support systems, shield systems or other protective systems shall conform to, at a minimum, to the OSHA requirements detailed in 29 CFR 1926 Subpart P and VDLI requirements. The Contractor shall submit a copy of the completed review to the designated WPCB Engineer or Safety Specialist prior to the start of work. When this design requires review and approval by a registered professional engineer, the Contractor will be required to procure those services at the Contractor's cost.

The Contractor shall notify the WPCB designated person of the name of the individual that is to serve as the Contractor's 'Competent person' as defined by OSHA/VDLI regulations. The Contractor's designated 'Competent person' shall maintain a written log of the daily inspections made of excavations, adjacent areas, and protective systems. A copy of these written logs shall be made available to the WPCB Safety Specialist or WPCB designee upon request.

Substantial physical barricades to prevent persons from falling into an open trench shall be maintained around the perimeter of trenches. This is especially important for trenches that must remain open overnight. Snow fencing or the equivalent, tape, and plastic caution tape/ribbon are not acceptable.

All areas of 29 CFR 1926 Subpart P and VDLI regulation must be followed.

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any manner which may damage buried utilities is required to call Miss Utility of Virginia at 1-800-552-7001 48 hours (2 working days) before starting the proposed work. All Miss Utility Tickets must be cleared before work begins, to check for cleared tickets call 1-800-552-3120. Just waiting 48 does not necessarily mean you may start excavations, you must make phone contact to ensure ticket is clear before beginning work.

17.23 - Lockout/Tagout

The Contractor is responsible for its own Lockout/Tagout program. This program must be in full compliance with OSHA 29 CFR 1910.147 and VDLI regulations. The Contractor shall submit a copy of its Lockout/Tagout Program to the WPCB designee for review by the Safety Specialist or designee before the start of any work where 29 CFR 1910.147 is applicable. OSHA lockout/tagout procedure requires at a minimum:

- Use of locks and/or tags on energy isolating devices.
- Special lockout/tagout procedures for jobs requiring multiple lockout/tagout devices.
- Contractors must provide their own lockout/tagout devices.
- All Contractor employees, (authorized, affected, and other employees), must be trained by the Contractor (or other acceptable training source) concerning lockout/tagout procedures.

Locks, and/or tags must not be removed by anyone other than the employee applying them except under approved emergency situations and the appropriate notification and documentation must be followed to ensure the safety of contractor and WPCB employees.

- Testing and positioning of machines or equipment will be performed only under special procedures per OSHA 29 CFE 1910.147(f).
- WPCB employees will shut down and start up all systems unless otherwise specifically directed by WPCB management.
- The Contractor will maintain a log of machines and equipment that are locked out and/or tagged out during the performance of the work at the WPCB facilities. The log shall identify the equipment that was worked on, the dates the work began and ended,

why work was being done and the name of the individual performing the work. The Contractor will submit this log to the WPCB Safety Specialist or designee on a daily basis when lockout/tagout work is being performed.

17.24 – General Electrical Safety

- Electrical systems and equipment that use or control electrical power can only be worked on by qualified electricians.
- Do not operate electrical tools or equipment in wet areas where potentially flammable dusts, vapors, or liquids are present, unless specifically approved for the location. Intrinsically safe tools are required in areas where the potential for a hazardous atmosphere exist due to raw sewage or sludge.
- Ensure that a qualified electrician checks the circuit and equipment and corrects the problem before resetting the breaker when a circuit breaker or other protective device trips.
- The Contractor shall erect barriers and post warning signs to ensure non-authorized personnel stay clear of electrical work areas.
- The Contractor must report hazards (lack of protective guards or covers, damaged equipment etc.) to the WPCB Shift Supervisor, Safety Specialist or the WPCB designee immediately.
- Do not leave electrical boxes, switch gear, cabinets, or other electrical rooms open when not directly attended. Insulate energized parts when covers have been removed or doors are ajar. Use of cardboard, plywood, or other flammable materials to cover energized circuits is prohibited.
- Contractors must establish and maintain an effective electrical safety-related work practices program. References for such a program include OSHA standards 29 CFR 1910.331 to 1910.333 – Electrical Safety Related Work practices and CFR 1926 Subpart K Electrical.
- All electrical work shall be in compliance with the most recent (NFPA) National Fire Protection Association, NEC (National Electrical Code) and NFPA 70-E guidelines.
- Unqualified persons i.e. WPCB or Contractors shall not be allowed to work or operate equipment within 10 feet of energized overhead power lines or crossing clearance from electrical distribution lines and 50 feet from transmission lines. Special permission in writing must be obtained from the power company for all work that

involves 50 feet or less working clearance from overhead lines. The written documentation must be provided to the appropriate WPCB point of contact or designee prior to the beginning of work.

- Extension cords used with portable electric tools shall be the 3-wire type, shall be protected from damage. Extension cords shall be inspected and maintained in accordance with the Contractor's Assured Grounding Program. Worn or frayed cords shall not be used. Cords used in damp or wet areas must be GFCI protected.
- Bulbs on temporary lights shall be equipped with guards or deeply recessed in the reflector. Temporary lights shall not be suspended by their electrical cords unless designed for suspension.
- Receptacles for attachment plugs shall be of the approved concealed contact type. Where different voltages, frequencies, or types of current are supplied, receptacles shall be of such designs that attachment plugs are not interchangeable.
- Each disconnecting means of motors and appliances and each service feeder or branch circuit at the point where it originates shall be legibly marked to indicate its purpose, unless located and arranged so the purpose is evident.
- Cable passing through work areas shall be covered or elevated to protect it from damage which would create a hazard to employees.
- Boxes for disconnecting means shall be securely and rigidly fastened to the surface upon which they are mounted and fitted with covers.
- All extension cords and cord & plug connected equipment shall be protected by an assigned equipment grounding conductor program.
- Workers, other licensed electricians, shall not use jackhammers, bars, or other hand tools in close proximity to energized lines.

Personal Protective Equipment

17.25 – Personal Protective Equipment

- A hazard assessment must be conducted by the Contractor to determine the appropriate Personal Protective Equipment for contract employees performing work at the WPCB facility. Personal Protective Equipment shall be worn in all operations where there is an exposure to hazardous conditions or where the need is indicated for

using such equipment to reduce the hazard to the employee. The minimum requirement for Personal Protective Equipment at all WPCB facilities is:

- Safety Glasses
 - Steel Toed Boots/Shoes
 - Reflective Vest
 - Hard Hat
- Additional Personal Protective Equipment may be required based on the work that Contractors are on site to perform. The selection and use of additional Personal Protective equipment is the responsibility of the Contractor.
 - Employees working over or near non-aerated (process or non-process) water, where the danger of drowning exists, shall be provided with U.S. Coast Guard approved life jackets or buoyant work vests. Employees working over or near aerated (process or non-process) water, where the danger of drowning exists, shall be provided with harnesses and lanyards of such length that they cannot fall into the water.

17.25.1 - Eye and Face Protection

- Eye and face protection shall be provided when machines or operations present potential eye or face injury.
- Eye and face protective equipment shall meet requirements of ANSI Z87.1-1991. "Practice for Occupational and Educational Eye and Face Protection."
- Employees involved in welding operations shall be furnished with filter lenses or plates of at least the proper shade number for the type of welding being performed.
- Employees exposed to laser beams shall be furnished suitable laser safety goggles that will protect for the specific wavelength of the laser and shall have adequate optical density for the laser being used.

17.25.2 - Foot Protection

- All Contractors working at the WPCB must wear the appropriate foot protection that meets or exceeds the requirements of ANSI Z41-1991. Steel toe boots/shoes that totally cover the foot are required as a minimum.

17.25.3 – Head Protection

- Head protective equipment (hard hats only) shall be worn in all WPCB facility areas unless it is determined to be unsafe. Hard hats shall meet the highest performance requirements of ANSI Z89.1–2003 “American Standards for Industrial Head Protection”. Then use of Bump caps at WPCB facilities is prohibited.

17.25.4 – Hearing Protection

- Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in Table D-2 OSHA Standard 1926.52.
- When engineering or administrative controls fail to reduce sound levels within the limits of table D-2, hearing protective devices shall be provided and used.
- Hearing protection is required at constant noise levels above 85 decibels. Exposure to impulsive or impact noise should not exceed above 140 dB peak sound pressure level.
- Hearing protection that meets the NRR (Noise Reduction Rating) that protects the employee from the noise that the contract employees might be exposed to while working at the WPCB facility is required.
- Hearing protection is required anywhere in the WPCB where signs are posted indicating that hearing protection is a requirement.
- A hearing conservation program shall be administered and maintained in all cases where the sound levels exceed the values shown in safety and health regulations,

17.25.5 – Respiratory Protection

- When engineering or administrative controls are not effective in controlling toxic and other substances that could cause injury or illness to the respiratory system, appropriate respiratory protection shall be selected, provided and use enforced.
- Respiratory protective devices approved by the Mine Safety and Health Administration/National Institute for Occupational Safety and Health for the specific contaminant to which the employee is exposed shall be used.

- Respiratory protective devices provided to Contractor employees by their supervisors shall be appropriate for the hazardous materials involved and the extent and nature of the work requirements and conditions.
- Contractor must not provide Air Purifying Respirations to employees who are working in IDLH or Oxygen Deficient atmospheres. The appropriate Supplied Air respirator must be provided.
- Employees required to use respiratory protective devices shall be medically cleared, fit tested and thoroughly trained in the use of respiratory protection in accordance with OSHA Standards. The use of negative pressure respiratory equipment with tight fitting face pieces is prohibited with facial hair.
- Contractors shall have a written respirator program that meets or exceeds the requirements of 29 CFR 1926.103. This program shall be made available to the WPCB Safety Specialist or designee upon request.

17.26 - Motor Vehicles and Mechanized Equipment

- All Contractors and their employees must observe posted speed limits, give pedestrians the right of way, and yield to emergency vehicles. Unless otherwise posted the speed limit on WPCB Glebe Road facility shall be 10 miles an hour. Note: several areas on both sides of the WPCB facility have 5 M.P.H posted with an instruction to sound the horn. Caution should be observed when entering or exiting the WPCB tunnel that is below S. Glebe Road.
- All vehicles in use shall be checked at the beginning of each shift to ensure that all parts, equipment and accessories that affect safe operation are in proper operating condition and free from defects. All defects will be corrected before vehicle is placed in service.
- No person shall use any motor vehicle, earth moving or compacting equipment having an obstructed view to the rear unless.
 - The vehicle has a reverse signal alarm distinguishable from the surrounding noise level.
 - The vehicle is backed up only when an observer signals that it is safe to do so.
- Heavy machinery, equipment, or parts thereof which are suspended or held aloft shall be substantially blocked to prevent falling or shifting before employees are permitted to work under or between them.

- Park only in areas approved for Contractor use.
- Contractors must ensure that their drivers are legally licensed and trained for the vehicle or equipment that they are required to operate.

17.27 - Work Zones

Contractor must follow the Standard on Uniform Traffic Control Devices (MUTCD) and the Virginia Work Area Protection Standard.

Flaggers must be trained and keep their Flagger Certification Card on them at all times.

17.28 - Accident, Incident, Injury, or Illness

All life threatening work related accidents, incidents, injuries and illnesses must be immediately reported to the appropriate emergency agency (i.e., Local Emergency 9-1-1 for for WPCB Emergency, Fire and Rescue), The Contractor must also report all accidents to the WPCB Shift Supervisor, must WPCB Safety Specialist or the WPCB designee immediately or within 24 hours of the incident. A type written report detailing the incident and outlining methods to keep it from occurring must be submitted within 48 hours of the accident. The Contractor is responsible for notifying VDLI for any incidents that are reportable to that agency.

17.28 - Lead-Containing Building Materials

The location of lead materials, where present, will be detailed in the construction documents for that project.

Contractors that will disturb lead-containing building materials during the course of work shall take all necessary precautions to protect Contractor employees, WPCB employees and the public from exposure to lead dust or contamination. These measures shall conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926.62 and applicable VDLI, and federal regulations related to health, safety, transportation and disposal. Proper disposal of lead materials must be coordinated with the WPCB Safety Specialist, or WPCB designee. A copy of applicable manifest documents shall be provided to the WPCB for recordkeeping purposes.

- The Contractor shall contact the WPCB EMS Administrator, Safety Specialist or designee to ensure that manifesting, storage, the proposed disposal method and disposal site meet regulatory compliance when there are instances that hazardous waste disposal manifest(s) are required by regulations.

- The Contractor shall supply a legible copy of the properly filled out and partially completed waste manifest (having signatures of the generator and transporter) to the EMS Administrator or WPCB designee within 24 hours of when the material was removed from WPCB facilities.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon receipt of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon proper disposal of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.

17.30 – Asbestos and Suspect Asbestos Containing Building Materials

Asbestos materials may not be used or installed in WPCB Facilities.

The Contractor has the responsibility to provide thier own asbestos awareness program which shall include, but not be limited to, the information contained in the construction documents and the OSHA asbestos related regulations (29 CFR 1926.1101). Verification that the training has been conducted shall be sent to the Architect/Engineer of record for the project, the WPCB Safety Specialist or WPCB designee. Proper disposal of asbestos containing materials must be coordinated with the WPCB Supervisor, EMS Administrator, HHM Coordinator, Safety Specialist, or WPCB designee. A copy of applicable manifest documents shall be provided to the WPCB for recordkeeping purposes.

- The Contractor shall contact the WPCB EMS Administrator, Safety Specialist or designee to ensure that manifesting, storage, the proposed disposal method and disposal site meet regulatory compliance when there are instances that hazardous waste disposal manifest(s) are required by regulations.
- The Contractor shall supply a legible copy of the properly filled out and partially completed waste manifest (having signatures of the generator and transporter) to the EMS Administrator or WPCB designee within 24 hours of when the material was removed from WPCB facilities.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon receipt of the material at the TSD facility to the EMS

Admininstrator or WPCB designee within 24 hours of receipt.

- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon proper disposal of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.

17.31 - Inspections

Work site inspections should be conducted by the Contractor to ensure that work is proceeding in a safe manner. Contractors that are on site for long term projects will thouroughly inspect their work areas at least once a week at a minimum.

Work site inspection will also be conducted by the WPCB Shift Supervisor, WPCB Safety Specialist or a WPCB designee. These inspections are conducted solely for the benefit of WPCB, and shall not relieve the Contractor of responsibility for enforcement of, and compliance with, VDLI and the OSHA, environmental or other applicable regulations.

In the event that work site conditions exist that potentially impact the safety of WPCB employees or the public, WPCB shall issue a verbal or written warning to the Contractor and shall notify the Contractor's main office. If the unsafe conditions cannot be immediately corrected and represent imminent danger to Contractor employees or have the potential to harm WPCB employees or the public, WPCB will:

- Detail the VDLI and/or OSHA violations that were noted, and explain the potential impact upon WPCB employees and the public.
- Require that the Contractor either cease that portion of work, or implement measures to isolate the hazardous condition until the unsafe condition can be mitigated.
- Issue a formal written report of the violation(s) to the Contractor, and their main office.

Reports of deficiencies may be factored into the evaluation of the contract by WPCB. Repeat safety violations of a similar nature and/or a single serious, willful safety violation by a Contractor will require a detailed investigation and a written report that will outline root causes and corrective action within 48 hours of the incident. This report must be sent to the WPCB Bureau Chief, Safety Specialist and the Contractor's home office. In addition, the employee who was responsible for the safety infraction must be barred from working at WPCB unless the Contractor requests in writing and received writtem permission from the WPCB Bureau Chief, after Safety Specialist review, that the employee can continue to work.

Environmental Requirements

17.32 - Hazardous Waste Management

The Contractor must provide the EMS Administrator, WPCB Safety Specialist or designee with a list of actual and potential hazardous waste(s) to be generated during a project. Hazardous waste generated by a Contractor as part of its work is the responsibility of the Contractor. Contractors must ensure that their hazardous waste is properly identified, stored, transported and disposed of in accordance with all applicable local, state, and federal laws. The Contractor must provide the WPCB designated employee with the appropriate manifest or paperwork to validate disposal. Contractor employees must be properly trained to handle hazardous waste safely and in compliance with all applicable local, state and federal laws. For projects where temporary on-site storage is necessary, the Contractor must ensure, at a minimum, proper labeling of containers and tanks, adequate secondary containment, segregation of incompatible materials and documentation of weekly inspections of these storage areas. Contractors must maintain an adequate emergency plan and spill equipment to address spills, fire, etc. In addition, all hazardous waste containers shall be kept securely closed at all times.

The Contractor is responsible for completing all disposal documents, which may include, but are not limited to, waste profiles, waste analytical samples and hazardous waste manifests. Copies of these documents will be provided to the WPCB Safety Specialist or WPCB designee at the end of the project or when requested for the inclusion in WPCB's project file.

Manifests will be provided to the WPCB Safety Specialist or WPCB designee as follows:

- The Contractor shall supply a legible copy of the properly filled out and partially completed waste manifest (having signatures of the generator and transporter) to the EMS Administrator or WPCB designee within 24 hours of when the material was removed from WPCB facilities.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon receipt of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.
- The Contractor shall supply a legible copy of the completed waste manifest (having signatures of the generator, all transporters and the TSD (treatment, storage and disposal) facility) upon proper disposal of the material at the TSD facility to the EMS Administrator or WPCB designee within 24 hours of receipt.

For projects where WPCB is deemed responsible for hazardous waste generated, the Contractor will

ensure that hazardous wastes are managed in accordance with local, state and federal laws. The Contractor must ensure that the WPCB is designated as the generator on all manifests and land disposal restriction forms for which the county is the generator. The Contractor shall provide the WPCB Safety Specialist or designee with copies of all waste analyses and related documentation.

The Contractor shall immediately cease work in the affected area when previously unidentified material that is reasonably believed to be radioactive, volatile, corrosive, flammable, explosive, biomedical, infectious, toxic, hazardous, asbestos containing or oil based are found. The condition must be reported immediately to the WPCB Supervisor or WPCB designee. At no time shall such material be disposed of in any manner that is inconsistent with the local, state, federal and other applicable environmental regulations. The Contractor agrees to cooperate with WPCB and any consultants engaged by WPCB to perform services with respect to the analysis, detection, removal, containment, treatment and disposal of such regulated materials.

17.33 - Transport of Hazardous Materials

Hazardous materials must not be transported via public or private roads at the WPCB in a manner that could result in an unsafe condition for employees or the environment. All transportation of hazardous materials while on or off WPCB facilities shall be conducted in accordance with USDOT Hazardous Materials Regulations for proper packaging, marking/labeling, handling, documentation, etc. Contractors must ensure, that appropriate shipping documentation accompanies shipments of hazardous materials and that a 24-hour emergency contact is available to address transportation related emergencies in accordance with USDOT regulations.

17.34 - Spill Prevention and Response

Water Pollution Control Bureau Spill Prevention Control and Countermeasures (SPCC) Program establishes facility procedures for prevention, detection and reporting of spills and/or releases of oil or hazardous materials. Contractors must adhere to SPCC protocols, including the following when working at WPCB facilities:

17.34.1 - Spill Prevention

- The Contractor shall have available equipment (e.g., secondary containment pallets, absorbent pads, absorbent booms, or other absorbent agents) that are suitable and sufficient to control a potential spill/release based on the inventory of oil, hazardous chemicals, and other materials that will be brought and/or stored on-site.
- The Contractor is responsible for immediately identifying conveyances to the environment (e.g., sumps, storm/floor drains, etc.) and adequately minimizing spill potential to these areas.

- The Contractor is responsible for the proper storage of all flammable and combustible chemicals that are brought and/or stored on site to complete work of this contract. Such storage may require the use of safety containers, safety cabinets, and/or secondary containment. The Contractor shall also ensure that any incompatible chemicals are safely segregated. The Contractor is responsible for maintaining and securing all chemical containers and all chemical storage areas. This requires selecting locations and methods to minimize exposure to rainfall, surface water, and the ground surface or subsurface. Enclosures, shelters, and secondary containment should be used where appropriate.
- The Contractor must use appropriate protective procedures such as double containment, inspections, employee training, overflow protection, and other measures as part of activities involving the use, storage, or handling of petroleum products or hazardous materials on WPCB facilities.
- The Contractor must ensure that their employees are adequately trained in spill response/notification procedures outlined below.

17.34.2 - Spill Response

“Incidental” spills meet all the following criteria: 1) employees are familiar with the hazards associated with the spill material; 2) containment/response does not pose potential health and safety hazards (i.e.; fire, explosion, and chemical exposure); 3) a small quantity (less than 10 gallons) of material is spilled/released which **DOES NOT** reach the environment or pose potential health hazards; and 4) spilled/released material can be readily absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate area or by maintenance personal.

“Non-Incidental” spills include 1) major spill/release (e.g. greater than 10 gallons) that does not reach the environment or 2) any amount of spilled material that escapes to the environment (including drains, sumps, soil, etc.)

Water Pollution Control Bureau SPCC Program also establishes reporting requirements in event of a spill or release of oil or hazardous materials. The Contractor is responsible for the proper management of their spills including internal/external notifications, must pay for all costs as well as, proper mitigation steps and clean-up to the satisfaction of the WPCB EMS Administrator. Schedule delays, cost overruns, etc. caused by a spill are the responsibility of the Contractor. In the event of a spill or release, the Contractor must follow all of the reporting requirements of the SPCC Program as specified below:

- (1) The Contractor shall determine if the spill/release is incidental or non-incidental.

(2) For *incidental* spills/releases:

- The Contractor shall attempt to stop or contain the spill/release at the source provided that doing so does not endanger anyone.
- The Contractor shall prevent discharge of materials to the environmental receptors including drains, sumps, soil etc.
- The Contractor shall immediately notify the WPCB EMS Administrator, WPCB Supervisor, Safety Specialist or WPCB designee of all incidental spills/releases.
- The Contractor is responsible for the proper collection, storage of waste materials in compliance with EPA and DEQ regulations and in cooperation with the Contract Coordinator.

(3) For *non-incidenta*l spills/releases: The Contractor shall immediately report the spill/release to the Arlington County Fire Department if the spill is too large to contain. The Contractor must immediately notify the WPCB Shift Supervisor at (703) 585-6851, the WPCB EMS Administrator at (703) 228-6881, or the WPCB Safety Specialist at at (703) 228-6834-office, (703) 864-5380 cell.

The Contractor must also contact the Virginia Department of Environmental Quality at (703) 583-3864 or (703) 583-3800.

**Water Pollution Control Bureau
Arlington County Department of Environmental Services
Appendix #2**

Contractor Safety Program Checklist

I hereby acknowledge that I have received and completed a copy of the WPCB Department of Environmental Services Water Pollution Control Bureau Contractor Safety Program Checklist.

Name: _____

Title: _____

Company (name, address and phone number): _____

Sign name _____

Print Name _____

Date: _____

Return this signed copy to: Safety Specialist
Department of Environmental Services
Water Pollution Control Bureau
Room 306
3402 S. Glebe Road
Arlington Virginia, 22202

Return the signed document to the Safety Specialist or WPCB designee prior to the start of work.

CONTRACTOR SAFETY PROGRAM CHECKLIST

Please complete and return this checklist to the Safety Specialist or designee before beginning work. Copies of all Permits i.e. Permit Required Confined Space and Hot Work must be posted while work is in progress and provided to the Safety Specialist or designee upon completion of the work. Write N/A next to any item that does not apply to the work your company is performing. Questions:

WRITTEN SAFETY PROGRAM

- | | | |
|----------------------------------------------|-----|----|
| 1. Do you have a written safety program | Yes | No |
| 2. Does it contain the following components: | Yes | No |
| a. Management | Yes | No |
| b. Record keeping | Yes | No |
| c. Analysis | Yes | No |
| d. Education/Training | Yes | No |
| e. Inspections & Internal Audits | Yes | No |
| f. Accident Investigations | Yes | No |
| g. Periodic Review & Revision | Yes | No |

GENERAL WORKSITE

- | | | |
|---------------------------------------------------------------------------------------------|-----|----|
| 1. Required posters – VOSH | Yes | No |
| 2. Virginia Workers’ Compensation Notice | Yes | No |
| 3. Written substance abuse policy | Yes | No |
| 4. Sanitation – adequate toilets and wash areas | Yes | No |
| 5. Housekeeping | | |
| a. Provisions to keep work areas clean and orderly | Yes | No |
| b. Clean up and discard materials daily | Yes | No |
| 6. First Aid and Medical Attention | | |
| a. First aid kits provided | Yes | No |
| b. Emergency medical procedures & phone numbers | Yes | No |
| c. System to contract WPCB Safety Specialist or designee when an injury or emergency occurs | Yes | No |
| 7. Fire Prevention & Protection | | |
| 8. Established procedures | Yes | No |
| a. Will Fire Extinguishers be provided | Yes | No |
| b. Storage for flammable and combustible liquids | Yes | No |

- | | | |
|--------------------------------------------------------------------|-----|----|
| c. Storage of compressed gas cylinders | Yes | No |
| d. Welding fire watch | Yes | No |
|
 | | |
| 9. Signs and Barricades | | |
| a. Type used _____ | | |
| b. Plan to address vehicle traffic | Yes | No |
| c. Method of preventing non-construction personnel on the job-site | Yes | No |
| d. Trenches | Yes | No |

GENERAL CONTRACTOR AND SUBCONTRACTOR RELATIONSHIP

- | | | |
|-------------------------------------------------------------------------------------------------|-----|----|
| 1. Are sub-Contractors required to follow any particular established guidelines | | |
| a. What are they _____ | | |
| b. VOSH, OSHA.ANSI, DOT, etc. | Yes | No |
|
 | | |
| 2. Are Sub-Contractors required to have a written safety program | Yes | No |
|
 | | |
| 3. Are Sub-Contractors required to provide documentation of training | Yes | No |
|
 | | |
| 4. Who is responsible for ensuring Sub-Contractors follow established safety requirements _____ | | |

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- | | | |
|--------------------------------------------------------------------------------------|-----|----|
| 1. Has a Job Hazard Analysis been performed to determine what PPE is required | Yes | No |
| a. Is it in writing | Yes | No |
|
 | | |
| 2. What type of PPE will this project require | | |
| a. Eye, head, and foot | Yes | No |
| b. Hearing protection | Yes | No |
| c. Respiratory protection | Yes | No |
| d. Fall protection | Yes | No |
| e. Others _____ | | |
|
 | | |
| 3. Will eye wash and/or a shower be available | Yes | No |
| a. Type of materials used which could require the use of an eye wash or shower _____ | | |
|
 | | |
| 4. Welding curtains | Yes | No |

JOB SITE EQUIPMENT

- | | | |
|------------------------------------------------------------------------|-----|----|
| 1. Heavy and Mechanized Equipment (front-end loaders, scrappers, etc.) | | |
| a. Experienced (Trained and certified) operators | Yes | No |

- | | | |
|---------------------------------------------------------------------------------------------------------------|-----|----|
| b. Back-up alarms or horns | Yes | No |
| c. Equipped and operated according to OSHA, VOSHA and ANSI standards | Yes | No |
|
 | | |
| 2. Material Handling Equipment | | |
| a. Types used (powered industrial trucks, chain hoists, conveyors)
Circle all that apply.
Others: _____ | | |
| b. Cranes used | Yes | No |
| c. Trained and certified operators | Yes | No |
| d. Established safety procedures | Yes | No |
| e. Will lift plans be provided | Yes | No |
| f. Equipped and operated according to OSHA, VOSHA, ANSI and applicable standards | Yes | No |

ELECTRICAL

- | | | |
|---------------------------------------------------------------------------------------------------------------------------|-----|----|
| 1. Do you specify compliance with VOSH, OSHA and WPCB Codes for all contract electrical work | Yes | No |
| 2. Portable tools and equipment grounded or double insulated | Yes | No |
| 3. Ground-fault circuit interrupters installed | Yes | No |
| 4. Electrical cords and cables free of splices or taps | Yes | No |
| 5. Plan for location and work around electrical power lines and cables (overhead, underground, under floors and in walls) | Yes | No |
| 6. Lock-out/Tag-out program | Yes | No |

ELEVATED SURFACES - FLOOR & WALL OPENINGS

- | | | |
|---------------------------------------------------------------------------------|-----|----|
| 1. Scaffolding or propelled mobile ladder stands used | Yes | No |
| a. Erected and used according to OSHA requirements | Yes | No |
| 2. Handrail, mid rails, and toe boards installed according to OSHA requirements | Yes | No |
| 3. Floor openings guarded by a cover, guardrail or equivalent on all sides | Yes | No |

CONFINED SPACES

- | | | |
|--------------------------------------------------|-----|----|
| 1. Have job-site confined spaces been identified | Yes | No |
| a. Will your work create confined spaces | Yes | No |
| 2. Written program developed | Yes | No |

- | | | |
|------------------------------------------------------------------|-----|----|
| 3. Do you have a Permit System | Yes | No |
| 4. Do you have air monitoring equipment & other safety equipment | Yes | No |

CHEMICALS

- | | | |
|---------------------------------------------------------|-----|----|
| 1. Will you be bringing chemicals onto the work site | Yes | No |
| 2. Do you have MSDS's for the chemicals you plan to use | Yes | No |
| 3. Provided MSDS's to Safety Specialist or designee | Yes | No |

Additional information or comments:

**Water Pollution Control Bureau
Arlington County Department of Environmental Services
Appendix #3**

Pre- Job Contractor Safety Planning Checklist

Company Name: _____

Contractor performing work: _____

Date of Pre-Job Conference: _____

Date work to start: _____

Location of work: _____

Describe work being performed: _____

Identification of Hazards in work area:

Fall Protection concerns: _____

Hazard Communications - Chemical(s) _____

Permit Required Confined Space(s) Location: _____

Hazards in space _____

Lock Out / Tag Out _____

Material Handling and Rigging _____

Personal Protective Equipment _____

Welding and Hot Work Permits _____

Work Zones and Traffic Control _____

Other: _____

Signature of Contractor Representative: _____

Date: _____

Signature of WPCB Representative: _____

Date: _____

**Water Pollution Control Bureau
Arlington County Department of Environmental Services
Appendix #4**

Instructions for the Use of the 'Contractor Safety Checklist' and the Pre-Job Contractor Safety Planning Checklist'

The 'Contractor Safety Checklist' should be sent or given to all Contractors performing work at WPCB facilities.

The 'Contractor Safety Planning Checklist' should be used to plan and provide information to Contractors about WPCB facility hazards.

- 1.) The WPCB point of contact securing the contracted services must ensure that the Contractor receives, completes and returns a copy of the 'Contractor Safety Checklist'. The checklist must be completed and signed before work begins.
- 2.) The completed 'Contractor Safety Checklist' form must be forwarded to the Safety Specialist upon receipt for review.
- 3.) The Safety Specialist must review the document to ensure that the Contractor safety program meets minimum Safety requirements.
- 4.) The Safety Specialist notifies the WPCB point of contact indicating that the Contractor Safety program meets the WPCB Contractor Safety Standard.
- 5.) The WPCB point of contact will then complete the 'Contractor Safety Planning Checklist' form as a part of planning the job.
- 6.) The WPCB point of contact will contact the WPCB Safety Specialist for support should they have any questions identifying hazards.
- 7.) The WPCB point of contact will contact the Contractor to advise them of hazards that they could encounter while performing the proposed task or service. They will discuss special Personal Protective Equipment or equipment requirements so that the Contractor can prepare for the job before coming on site.
- 8.) The WPCB point of contact will go over the information with the Contractor on the date of service and secure the Contractor's signature.
- 9.) The WPCB point of contact will send the completed form to the Safety Specialist as documentation for file.

**Water Pollution Control Bureau
Arlington County Department of Environmental Services
Appendix #5**

CONTACT TELEPHONE NUMBERS

Safety Specialist
Department of Environmental Services
Water Pollution Control Bureau
3402 S. Glebe Road
Room 306
Arlington, Virginia 22202
(703) 228-6875 Office
(703) 864-5380 Cell Phone

Operation Shift Supervisor(s)
Water Pollution Control Bureau
3402 S. Glebe Road
Arlington, Virginia 22202
(703) 585-6851 Cell Phone
This cell phone number will put you in touch with the on duty Supervisor 24 hour 365 days a week
for the Department of Environmental Services Water Pollution Control Bureau

Engineering Program Coordinator
Water Pollution Control Bureau
Arlington County Department of Environmental Services
3402 S. Glebe Road
Arlington, Virginia 22202
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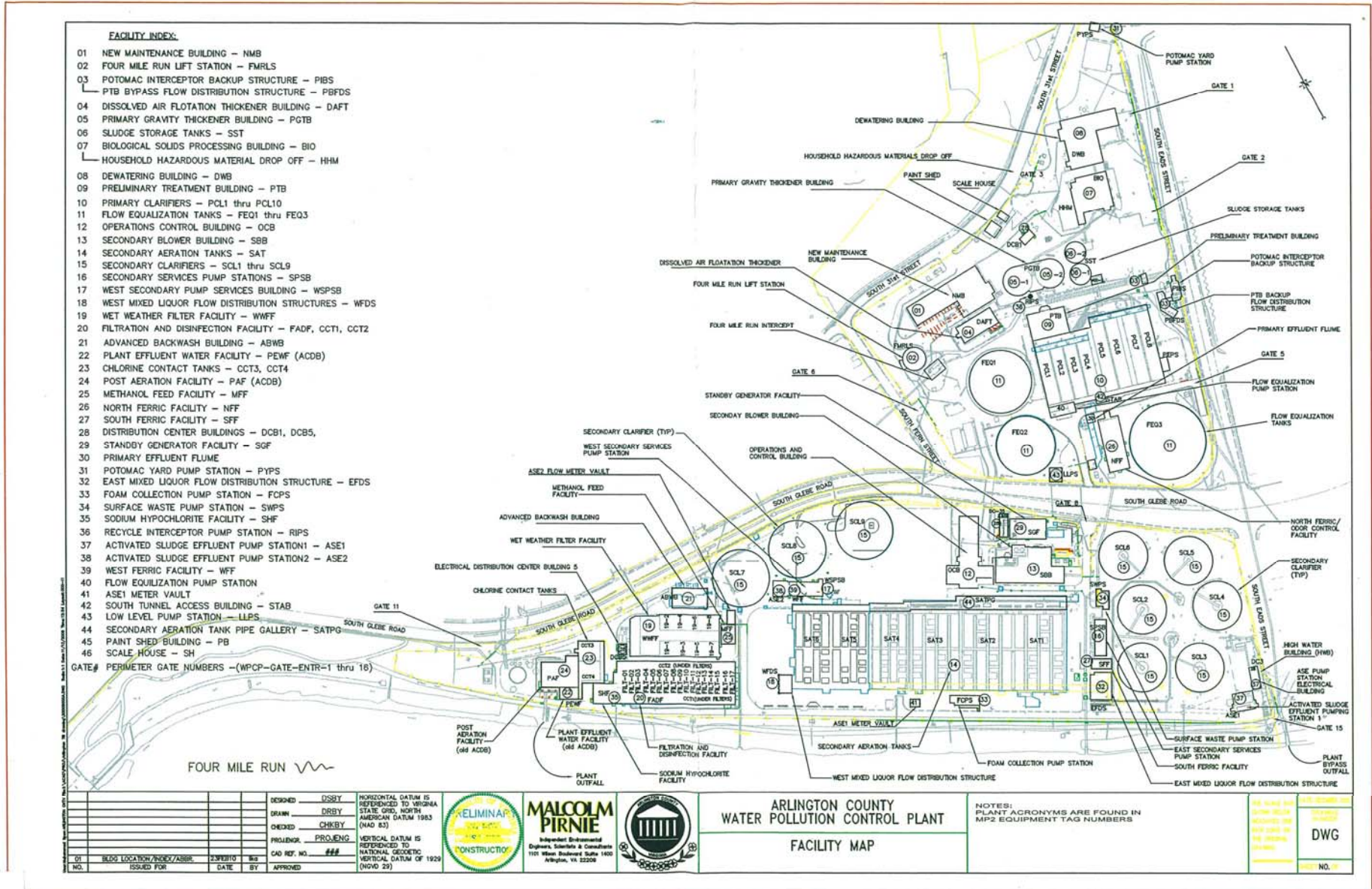
EMS Administrator
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Reliability Engineer/Planning Supervisor
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Arlington, Virginia 22202
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PLANNERS:

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Arlington, Virginia 22202
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(703) 228-6859
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Water Pollution Control Bureau Arlington County Department of Environmental Services Appendix #6 WPCB Facility Map



- FACILITY INDEX:**
- 01 NEW MAINTENANCE BUILDING - NMB
 - 02 FOUR MILE RUN LIFT STATION - FMRLS
 - 03 POTOMAC INTERCEPTOR BACKUP STRUCTURE - PIBS
 PTB BYPASS FLOW DISTRIBUTION STRUCTURE - PBFDS
 - 04 DISSOLVED AIR FLOTATION THICKENER BUILDING - DAFT
 - 05 PRIMARY GRAVITY THICKENER BUILDING - PGTB
 - 06 SLUDGE STORAGE TANKS - SST
 - 07 BIOLOGICAL SOLIDS PROCESSING BUILDING - BIO
 HOUSEHOLD HAZARDOUS MATERIAL DROP OFF - HHM
 - 08 DEWATERING BUILDING - DWB
 - 09 PRELIMINARY TREATMENT BUILDING - PTB
 - 10 PRIMARY CLARIFIERS - PCL1 thru PCL10
 - 11 FLOW EQUALIZATION TANKS - FE01 thru FE03
 - 12 OPERATIONS CONTROL BUILDING - OCB
 - 13 SECONDARY BLOWER BUILDING - SBB
 - 14 SECONDARY AERATION TANKS - SAT
 - 15 SECONDARY CLARIFIERS - SCL1 thru SCL9
 - 16 SECONDARY SERVICES PUMP STATIONS - SPSB
 - 17 WEST SECONDARY PUMP SERVICES BUILDING - WSPSB
 - 18 WEST MIXED LIQUOR FLOW DISTRIBUTION STRUCTURES - WFDS
 - 19 WET WEATHER FILTER FACILITY - WWFF
 - 20 FILTRATION AND DISINFECTION FACILITY - FADF, CCT1, CCT2
 - 21 ADVANCED BACKWASH BUILDING - ABWB
 - 22 PLANT EFFLUENT WATER FACILITY - PEWF (ACDB)
 - 23 CHLORINE CONTACT TANKS - CCT3, CCT4
 - 24 POST AERATION FACILITY - PAF (ACDB)
 - 25 METHANOL FEED FACILITY - MFF
 - 26 NORTH FERRIC FACILITY - NFF
 - 27 SOUTH FERRIC FACILITY - SFF
 - 28 DISTRIBUTION CENTER BUILDINGS - DCB1, DCB5,
 - 29 STANDBY GENERATOR FACILITY - SOF
 - 30 PRIMARY EFFLUENT FLUME
 - 31 POTOMAC YARD PUMP STATION - PYPS
 - 32 EAST MIXED LIQUOR FLOW DISTRIBUTION STRUCTURE - EFDS
 - 33 FOAM COLLECTION PUMP STATION - FCPS
 - 34 SURFACE WASTE PUMP STATION - SWPS
 - 35 SODIUM HYPOCHLORITE FACILITY - SHF
 - 36 RECYCLE INTERCEPTOR PUMP STATION - RIPS
 - 37 ACTIVATED SLUDGE EFFLUENT PUMP STATION1 - ASE1
 - 38 ACTIVATED SLUDGE EFFLUENT PUMP STATION2 - ASE2
 - 39 WEST FERRIC FACILITY - WFF
 - 40 FLOW EQUALIZATION PUMP STATION
 - 41 ASE1 METER VAULT
 - 42 SOUTH TUNNEL ACCESS BUILDING - STAB
 - 43 LOW LEVEL PUMP STATION - LLPS
 - 44 SECONDARY AERATION TANK PIPE GALLERY - SATPG
 - 45 PAINT SHED BUILDING - PB
 - 46 SCALE HOUSE - SH

GATE# PERIMETER GATE NUMBERS (WPCB-GATE-ENTR-1 thru 16)

NO.	ISSUED FOR	DATE	BY	APPROVED
01	BIDD LOCATION/ANNOY/ASSR	2/28/2010	MS	

DESIGNED: OSBY
 DRAWN: DIRBY
 CHECKED: CHKBY
 PROLOGEN: PROLENG
 CAD REF. NO.: ###

HORIZONTAL DATUM IS REFERENCED TO VIRGINIA STATE GRID, NORTH AMERICAN DATUM 1983 (NAD 83)
 VERTICAL DATUM IS REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29)

ELIMINAR
 CONSTRUCTION

MALCOLM PIRNIE
 Independent Environmental Engineers, Scientists & Consultants
 1101 West Belmont Suite 1400
 Arlington, VA 22208

**ARLINGTON COUNTY
 WATER POLLUTION CONTROL PLANT
 FACILITY MAP**

NOTES: PLANT ACRONYMS ARE FOUND IN MP2 EQUIPMENT TAG NUMBERS

DATE: 2/28/2010
 TIME: 10:00 AM
 DRAWN BY: DIRBY
 CHECKED BY: CHKBY
 PROLOGEN: PROLENG

DWG

NO.