

## **REQUEST FOR BIDS 6 SETS OF Scott SCBA EQUIPMENT**

### **For Town of Erwin, Tennessee Fire Department**

The Town of Erwin, Tennessee Fire Department will receive sealed bids for the purchase of new Scott SCBA EQUIPMENT until 4:30 p.m. on May 25<sup>th</sup>, 2018. The bids will be opened, reviewed for adherence to specification and then presented to the Board of Mayor and Aldermen at their meeting beginning at 5:30 p.m. on May 28<sup>th</sup>, 2018.

Bids are to be addressed to the Town of Erwin, Tennessee Fire Department and mailed to 211 North Main Avenue, P.O. Box 59, Erwin, Tennessee 37650. Bids can be hand delivered to 211 North Main Avenue Erwin, Tennessee 37650.

Bids must be enclosed in a sealed envelope and must be marked “**SCBA Equipment Bids**” on the front of the envelope. All bids must be signed.

A guaranteed delivery time from the receipt of a written purchase order must be specified in the proposal. No bid may be withdrawn for thirty (30) days from the date of the bid opening.

Town of Erwin, Tennessee Fire Department reserves the right to reject any or all bids, to waive any irregularities in a bid, to make awards to more than one bidder, to accept any part or all of a bid, or to accept that bid, (or bids) which in the judgment of the Town is in the best interest of the Department. The purchaser also reserves the right to require a bidder to submit evidence of qualifications as may be deemed necessary.

For further information regarding submission of a bid and to obtain bid packages, contact Fire Chief James D. Bailey 305 Broad Street Erwin, Tennessee 37650, Office Phone 423.743.3131 and Cell. Phone 423.735.9170.

**ERWIN FIRE DEPARTMENT**  
**REQUEST FOR BIDS 6 SETS OF SCBA EQUIPMENT**

**BIDDERS INSTRUCTIONS**

It is **not** the intent of Erwin Fire Department to exclude any vendor from participating in the bid for these SCBA. Deviations from Bid Specifications will **NOT** disqualify a bid proposal. The Bid Specifications represent equipment suitable for the needs of the Erwin Fire Department. The final decision, however, will consider all elements of the bid proposal, which represent the best combination of price, features, interoperability, and services as determined based on an evaluation of all proposals submitted.

Use the attached “Specification Checklist” to indicate compliance or non-compliance with each Bid Specification. Any item that is bid, which deviates from the Bid Specification must be explained in detail on a separate sheet(s) and enclosed with the bid proposal. This must be marked as an “Exception” and indicate the explanation for each deviation from the Bid Specifications.

The bidder shall provide with their bid, fully descriptive literature on the product proposed.

In addition to the items mentioned above, each bid submitted must include completed “Specifications Checklist” along with any additional pages of explanations of exceptions, and a completed “Bid Sheet”. Title VI sheet is requested but not required.

Bids are to be addressed to Town of Erwin, Tennessee Fire Department, 211 North Main Avenue, P.O. Box 59, Erwin, Tennessee 37650 by **May 25<sup>th</sup>, 2018 at 4:30 p.m.**

Bids must be enclosed in a sealed envelope and must be marked “**SCBA Equipment Bids**” on the front of the envelope. All bids must be signed.

**ERWIN FIRE DEPARTMENT  
REQUEST FOR BIDS  
6 SETS OF SCOTT SCBA EQUIPMENT**

**For Fire Department**

**TECHNICAL SPECIFICATIONS CHECKLIST**

**Note: The winning bidder shall deliver equipment & provide all shipping and handling cost.**

It is the intent of the Rockwood Fire Department is to replace the current fleet of breathing apparatus. This bid specification is to establish the minimum requirements for open-circuit self-contained breathing apparatus (SCBA). All SCBA, components and systems shall be NIOSH approved and NFPA complaint at the time of contract and issued purchase order.

Quantities:

- 24 NFPA 1981 and 1982, 2013 Edition compliant SCBA. To include:
- Full face piece assembly
  - A removable, face piece-mounted positive pressure breathing regulator
  - An automatic dual path redundant pressure-reducing regulator
  - End of service indicators
  - A harness and back frame assembly for supporting the equipment on the body of the wearer
  - A shoulder strap mounted, remote gauge indicating cylinder pressure
  - A rapid intervention crew/universal air connection (RIC/UAC)
  - Cylinder and valve assembly for storing breathing air under pressure
  - Voice amplifiers shall be provided.
- 48 Spare cylinder and valve assemblies

The successful bidder agrees to provide, at their own expense, a factory trained instructor for such time as the respirator user shall require complete instruction in the operation and maintenance of the respirator. Any exceptions to these specifications must be detailed in a separate attachment.

COMPLY \_\_\_\_\_ NON-COMPLY \_\_\_\_\_ INITIALS \_\_\_\_\_

The successful bidder shall indicate delivery time after receipt of order in their packages.

COMPLY\_\_\_\_\_NON-COMPLY\_\_\_\_\_INITIALS\_\_\_\_\_

The successful bidder must be a sales distributor, authorized by the manufacturer, to sell the equipment specified herein. A signed document from the manufacture confirming this must be included with the bid.

COMPLY\_\_\_\_\_NON-COMPLY\_\_\_\_\_INITIALS\_\_\_\_\_

The successful bidder shall have a factory authorized service center and maintain a sufficient supply of replacement parts to expedite needed emergency repairs. Bidder must provide on-site mobile service and repair for all components of this specification. Bidders shall provide a letter stating the location of their service center and include a copy of their current business license from the city where their business is located.

COMPLY\_\_\_\_\_NON-COMPLY\_\_\_\_\_INITIALS\_\_\_\_\_

All Bidders shall provide a list of Exceptions to the specifications on a separate page of paper. The list shall provide the exception and evidence of compliance.

COMPLY\_\_\_\_\_NON-COMPLY\_\_\_\_\_INITIALS\_\_\_\_\_

The SCBA shall maintain all NIOSH standards with any of the following types of cylinders listed as provided by the SCBA manufacturer.

SCBA	Meets	Does Not Meet	Exception
The SCBA shall be approved to NIOSH 42 CFR, Part 84 for chemical, biological, radiological and nuclear protection (CBRN). No Exceptions			
The SCBA shall be compliant to the NFPA 1981, 2013 Edition, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services. No Exceptions			

The SCBA shall be compliant to the NFPA 1982, 2013 Edition, Standard on Personal Alert Safety Systems (PASS). No Exceptions.			
All material used on the SCBA shall be of fire resistive material. This is to include any shoulder strap, hip pad, and storage pouch.			
The specified SCBA shall be able to operate at pressures of 4500 psig.			
All electronics shall be waterproof. They should also be engineered so that the user can change the batteries with no special tools. The electronic components shall be able to be submerged in water without fear of failure.			
If the SCBA is to include an optional of having an integrated self-rescue device, the device shall be compliant to the NFPA 1983, 2012 Edition, Standard on Life Safety Rope and Equipment for Emergency Services.			
All electronic components shall be approved for Intrinsic Safety under UL 913 Class I, Groups C and D, Class II, Groups E, F and G, Hazardous locations.			

<b>Face piece Requirements</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
Multi-directional voicemitters shall be mounted on both sides of the facepiece and ducted directly to an integral silicone nose cup to enhance voice transmission.			
The facepiece shall have a large diameter inlet serving as the female half of a quarter (1/4) turn coupling which mates with the positive pressure breathing regulator.			

The facepiece shall be approved for use with multiple respiratory applications to enable the same user to switch from one application to another without the use of tools and without doffing the facepiece.			
The full facepiece assembly shall fit persons of varying facial shapes and sizes with minimal visual interference.			
The full facepiece assembly shall be available in three sizes marked "S" for small, "M" for Medium and "L" for large.			
The facepiece sizes shall be easily identifiable through a color-coding scheme.			
The facepiece shall have any mounting accessories needed for voice communication devices. The facepiece shall enable the installation of communications bracket on either the right or left side.			
The facepiece shall contain inhalation valves that are readily visible to enable quick visual inspection.			
The face piece shall be able to be separated from the second stage regulator.			

The face seal shall be a reverse reflex design for enhanced fit and comfort.			
The facepiece series shall have a face seal that is secured to the lens by a U-shaped channel frame that is retained to the lens using two fasteners.			
The face piece assembly, including the head harness, shall be latex free.			

The lens shall be a single, replaceable, configuration constructed of non-shatter type polycarbonate material.			
In accordance with NIOSH 42 CFR part 84, the face piece must meet penetration and impact requirements, including compliance with ANSI Z87.1 – 2010.			
The lens shall have a coating to resist abrasion and chemical attack and meet the requirements of NFPA – 1981 for lens abrasion.			
The lens shall have an integral anti-fog coating to reduce fogging of the lens.			
The head harness shall be a five-point suspension made in the fashion of a net hood to minimize interference between securing of the face piece and the wearing of head protection, and be constructed of a material for fire, first responder and CBRN applications.			
<b>Second Stage Regulator</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The second stage regulator will be designed so that it can be submerged during decontamination and cleaning without the need to remove any electronic components.			
The facepiece-mounted positive pressure-breathing regulator shall supply and maintain air to the facepiece to satisfy the needs of the user at a pressure greater than atmospheric by no more than 1.5 inches of water pressure static.			
The breathing regulator shall maintain positive pressure during flows of up to 500 standard liters per minute.			

The regulator shall also meet or exceed a dynamic flow requirement of remaining positive while supplying a minute volume of 160 liters.			
The second stage regulator will be separable from the face piece without having to use special tools or finger managed screws.			
The breathing regulator shall have attached a low pressure hose which shall be threaded through the shoulder strap to couple to the pressure-reducing regulator mounted on the backframe.			
An optional regulator shall be available with a quick connect coupling in line for use with the optional outlet manifold and accessory hose to allow the breathing regulator to be disconnected from the unit and reconnected to the auxiliary hose of a second unit in the event rescue is required.			
The optional quick connect coupling shall be easily connected and disconnected by trained individuals with a gloved hand and/or in low light conditions.			
The optional quick connect coupling shall not allow the air hose to be connected without the HUD Connection.			
The optional coupling shall also be guarded against inadvertent disconnect during use of the equipment.			
The low-pressure hose shall be equipped with a swivel attachment at the facepiece mounted regulator.			
The second stage regulator will be separable from the face piece by the use of only one hand, with the air saver/doffing switch being operable using the same hand.			



A storage holster for the regulator shall be provided on the user's left side on the waist strap or on the left shoulder strap.			
The regulator shall connect to the facepiece by way of a quarter (1/4) turn coupling.			
The user shall hear an audible sound when the regulator is attached correctly to the facepiece.			
The regulator shall be equipped with a gasket which provides a seal against the mating surface of the facepiece.			
The regulator shall be available with a quick connect coupling in line for use with an optional outlet manifold and accessory hose to allow the breathing regulator to be disconnected from the unit and reconnected to the auxiliary hose of a second unit in the event a rescue is required.			
The quick connect coupling shall be easily connected and disconnected by trained individuals with a gloved hand and shall only be able to be connected when the HUD wiring is also connected.			
The quick connect shall be guarded against inadvertent disconnect.			
The regulator cover shall be fabricated of a flame resistant, high impact plastic.			

The breathing regulator shall have a demand valve to deliver air to the user, activated by a diaphragm responsive to respiration.			
The demand valve shall use an extended temperature range dynamic O-ring seal composed of a fluorosilicone elastomer.			

The diaphragm shall include the system exhalation valve and shall be constructed from a high strength butyl elastomer.			
A purge valve shall be situated at the inlet of the breathing regulator and shall be capable of delivering airflow of between 125 and 175 standard liters per minute.			
The breathing regulator shall be designed to direct the incoming air over the inner surface of the facepiece lens for defogging purposes.			
The components of the breathing regulator shall be constructed of materials that are not vulnerable to corrosion.			
The flame resistant cover shall contain an air saver switch and pressure demand bias mechanism.			
The regulator shall reactivate and supply air only in the positive pressure mode when the wearer affects a face seal and inhales.			
This device shall not affect the breathing flow through the system while in operation.			
<b>Emergency Breathing Support System Buddy Breathing Capabilities</b>	<b>Meet</b>	<b>Does Not Meet</b>	<b>Exception</b>
The SCBA shall be equipped with buddy breathing capabilities. These shall be approved to NIOSH 42CFR, Part 84 and NFPA 1981, 2013 Edition.			

The Dual EBSS shall have one of each of the following requirements; (1) a manifold with one each of a female socket and male plug, both of which have check valves, (2) 40" minimum low-pressure hose, (3) a pouch for storing the hose, and (4) a dust cap for the female socket and male plug.			
The Dual EBSS system shall be on the wearer's left side and shall be capable of allowing for six feet of hose between like systems.			
The manifold shall be made of aluminum and be anodized.			
The female socket and male plug shall have spacing, no less than 15° off-center.			
The female socket shall have a double action to disengage, noted as a "push-in/pull-back".			
The female socket shall have an internal check valve.			
The male plug shall have an external check valve.			
The hose shall be made of high temperature rubber capable of sustaining a maximum 250 psig of pressure.			
The containment system shall include a pouch and shall be made of para-aramid materials and shall be capable of storing 36" of hose.			
The pouch shall be attached to the SCBA by pull the-dot fasteners.			
The system shall also have the capability to attach between SCBA's and to be connected to a fixed supplied air system such as in an aerial platform.			

<b>Rapid Intervention Connection</b>	<b>Meet</b>	<b>Does Not Meet</b>	<b>Exception</b>
The SCBA shall incorporate a RIC/UAC fitting to be compliant with the 2013 edition of the NFPA 1981 Self Contained Breathing Apparatus standard.			
The RIC/UAC shall be an integral part of the high pressure hose that attaches the cylinder valve to the first stage pressure reducer.			
The RIC/UAC inlet connection shall be within 4" (4-inches) of the tip of the CGA threads of the cylinder valve.			
The self-resetting relief valve shall be color-coded to identify pressure rating of the SCBA.			
The RIC/UAC connection shall allow for attaching a high-pressure source and a self-resetting relief valve allowing for a higher pressure than that of the SCBA to be attached to the SCBA.			
The RIC/UAC connection shall have a check valve to prevent the loss of air when the pressure source has been disconnected.			
<b>First Stage Regulator</b>	<b>Meet</b>	<b>Does Not Meet</b>	<b>Exception</b>
The pressure reducing regulator/first stage regulator shall be mounted on the back frame, and be coupled to the cylinder valve through a short length of internally armored high pressure hose with a hand coupling for sealing the cylinder valve outlet. This shall be a CGA Valve.			

The pressure-reducing regulator shall have incorporated a re-seatable over-pressurization relief valve, which shall prevent the attached low pressure hose and face piece-mounted breathing regulator from being subjected to high pressures. The pressure-reducing regulator shall be of a fail open design.			
<b>Cylinder</b>	<b>Meet</b>	<b>Does Not Meet</b>	<b>Exception</b>
Cylinders shall be manufactured to meet DOT specifications and be NIOSH and NFPA approved.			
Cylinders shall be designed to store and operate at pressures of 4500 psig and shall contain a minimum of 65 SCF of air. (45 minute rated)			
Cylinders shall be lightweight and consist of a carbon fiber wrapped design.			
Cylinders shall have a hydrostatic test of no less than 5 years. Cylinders shall have a life expectancy of no less than 15 years.			
The date of manufacture for the SCBA cylinders shall be within 180 days of the date of delivery of the specified cylinders.			
Cylinders shall have glow in the dark stripes to allow for visibility in low light conditions. The striping will not be in an area that will cause it to be covered by the retaining strap of the backpack frame.			
Cylinder stripes will fully encircle the cylinder.			
A layer of clear protective coating shall protect cylinder stripes.			

<p>The cylinder threads shall be straight with an O-ring or quad-ring gasket type seal.</p>			
<p>The cylinder valve shall be a “fail open” type, constructed of forged aluminum and designed such that no stem packing or packing gland nuts are required.</p>			
<p>It shall contain an upper and lower seat such that the pressure will seal the stem on the upperseat, thus preventing leakage past the stem.</p>			
<p>The cylinder shall be available in a 30-minute, 45minute, 60-minute or 75-minute duration based on the NIOSH breathing rate of 40 liters per minute (lpm).</p>			
<p>The SCBA is equipped with a CGA cylinder connection, the cylinder valve outlet shall be a modification of the Compressed Gas Association (CGA) standard threaded connection number CGA 347 for 4500 and 5500 systems.</p>			
<p>Each cylinder valve shall consist of the following:  1) a hand activated valve mechanism with a spring-loaded, positive action, ratchet type safety lock and lock-out release for selecting “lock open service” or “non-lock open service”; 2) an upstream connected frangible disc safety relief device; 3) a dual reading pressure gauge indicating cylinder pressure at all times; 4) an elastomeric bumper; 5) an angled outlet.</p>			
<p>The cylinder shall be manufactured in accordance with DOT specifications and meet the Transport Canada requirements with working pressures of 4500 psig.</p>			
<p>The cylinder shall be lightweight, composite type cylinder consisting of an aluminum alloy inner shell, with a total overwrap of carbon fiber, fiberglass and an epoxy resin.</p>			

No adjustment shall be necessary during the life of the valve.			
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<b><i>Pressure Reducer with CGA Cylinder Connection</i></b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The pressure-reducing regulator shall be mounted at the waist on the backframe and be coupled to the cylinder valve through a short length of internally armored high pressure hose with a hand coupling for engagement and sealing within the cylinder valve outlet.			
In lieu of a manual by-pass, the pressure reducing regulator shall include a back-up pressure-reducing valve connected in parallel with the primary pressure reducing valve and an automatic transfer valve for redundant control.			
The back-up pressure reducing valve shall also be the means of activating the low-pressure alarm devices in the facepiece- mounted breathing regulator.			
This warning shall denote a switch from the primary reducing valve to the back-up reducing valve whether from a malfunction of the primary reducing valve or from low cylinder supply pressure.			
A press-to-test valve shall be included to allow bench testing of the back-up reducing valve.			
The pressure-reducing regulator shall have extended temperature range dynamic O-ring seals composed of fluorosilicone elastomer.			

<p>The pressure reducing regulator shall have incorporated a reseatable over-pressurization relief valve which shall prevent the attached low pressure hose and facepiece-mounted breathing regulator from being subjected to high pressure.</p>			
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<b>Backpack Harness and Frame Assembly</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
<p>A lightweight, lumbar support style backframe and harness assembly shall be used to carry the cylinder and valve assembly and the pressure reducing regulator assembly.</p>			
<p>The backframe shall be a solid, one-piece black powder-coated aluminum alloy frame that is contoured to follow the shape of the user's back.</p>			
<p>The backframe shall include a mounting for the pressure reducer located at the waist.</p>			
<p>The backframe shall include an over-the-center, adjustable tri-slide fixture, a para-aramid strap and a double-locking latch assembly to secure 30, 45, or 60 minute cylinders.</p>			
<p>The harness assembly shall consist of a one size black strap with a yellow stripe.</p>			
<p>This harness shall include box-stitched construction with no screws or bolts.</p>			
<p>The harness assembly shall incorporate parachute-type, quick release buckles and shall include shoulder and hip pads.</p>			



The harness shall include a seat-belt type waist attachment.			
The shoulder strap shall be fitted with a Drag Rescue Loop (DRL) capable of being deployed in an emergency situation to drag a downed firefighter to safety.			
The shoulder strap shall be attached to the backframe by way of a single, articulating metal bracket to allow for optimal shoulder movement.			

These mounting spaces shall permit installation of an alarm sensor module in an area between the cylinder hanger locking mechanism and the backframe.			
The frame shall include a mounting for the pressure reducer/first stage regulator.			
All straps shall be of sufficient size to allow for "over the head" or "coat style" donning methods.			
A snap hook retainer shall be provided on the shoulder strap to allow for the hanging of the face piece while it is not in use.			
<b>Shoulder Mounted Pressure Gauge</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The SCBA shall have a shoulder mounted mechanical pressure gauge. This shall be a part of the pass device and control console.			
The control console shall contain a back lit pressure gauge. The gauge shall be angled so that the wearer can visualize remaining pressure without the need to lift or move the console.			

<b>Personal Alert Safety System (PASS Device)</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The PASS device shall be compliant with the NFPA 1982, 2013 Edition Standard on Personal Alert Safety Systems.			
Operation of this distress alarm shall be initiated with the opening of the valve of an SCBA charged cylinder.			

The PASS device shall have manual capabilities to allow for the activation of the alarm without the system being pressurized.			
The system shall feature a “hands-free” re-set capability that may be activated by means of a slight movement of the SCBA when the system is in a pre-alert mode.			
When the PASS device goes into pre-alarm, the user shall be notified through a distinct light pattern in the HUD display.			
The system shall operate from a single power source containing “AA” batteries.			
The battery life of the SCBA with PASS only shall be no less than 200 hours.			
The system shall have a battery check function that provides an LED indication of battery status while the SCBA is not pressurized.			
The PASS System shall be upgradeable to include integrated locator system.			
The PASS system shall be upgradeable to include a PASS (telemetry) management system.			

The PASS device shall contain two components: a Console and a Sensor Module.			
The console shall be located on the user's right shoulder harness.			
The control console shall come with a mechanical pressure gauge that is angled at 30° with a sweeping display.			

The console shall contain an integral edge lit mechanical pressure gauge that is automatically energized by opening the cylinder valve.			
The console shall display to the user the following: <ul style="list-style-type: none"> <li>• Pre-Alarm: alternating red flashing LED's;</li> <li>• Full Alarm: dual flashing red LED's and a flashing PASS icon;</li> <li>• Low Battery: red flashing LED's;</li> <li>• Normal System Operation: flashing green LED.</li> </ul>			
The console shall contain a photo sensing diode to dim and brighten the HUD as the ambient lighting changes.			
The console shall contain push buttons for user interface.			
The push buttons shall be designed to minimize accidental activation.			
A yellow color-coded push button shall permit system re-set.			
A red color-coded push button shall permit manual activation of the full alarm mode.			

The console shall be equipped with a LED “External HUD” allowing others to determine the wearer’s cylinder pressure through the same color-code scheme as the standard HUD.			
A green LED shall be illuminated across the gauge face to indicate a cylinder with greater than half bottle pressure.			
A yellow LED shall be illuminated across the gauge face to indicate a cylinder with less than half bottle pressure.			

A red LED shall be illuminated across the gauge face to indicate a cylinder with less than one-third bottle pressure.			
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**Sensor Module**

The system shall include a sensor module mounted to the SCBA backframe and located in an area between the cylinder and backframe in a manner designed to protect the assembly from damage.			
The sensor module shall contain a motion sensor that is sensitive to user hip movement to reduce false activations.			
The sensor module shall contain redundant, dual sound emitters for the audible alarm and dual visual “buddy” indicators.			
The sensor module sound emitters shall be oriented in multi-directions for optimal sound projection.			
The visual indicators on the backframe mounted sensor module shall flash green during normal operation.			

The visual indicators shall flash red 1) when the device is in pre-alert; 2) when the device is in full alert; and 3) when the SCBA has reached one third bottle pressure.			
The visual indicators shall flash red when the device is in pre-alarm and full-alarm.			
The visual indicators shall flash orange when the SCBA has reached one-half bottle pressure.			
The visual indicators shall flash a combination of red, green, and white when the SCBA has reached one-third bottle pressure.			

<b>Console</b>			
The console shall be located on the user's shoulder strap.			
The console shall contain an integral edge lit mechanical pressure gauge that is automatically turned on by opening the cylinder valve.			
The console shall display to the user the following: Pre- Alarm: alternating red flashing LED's; Full Alarm: dual flashing red LED's and a flashing PASS icon; Low Battery: red flashing LED's; Normal System Operation: flashing green LED.			
The console shall contain a photo sensing diode to dim and brighten the HUD as the environment changes.			
The console shall contain push buttons for user interface.			
The push buttons shall be designed to minimize accidental activation.			

A yellow color-coded push button shall permit system re- set.			
A red color-coded push button shall permit manual activation of the full alarm mode.			
A gray color-coded push button shall permit the activation of the withdraw mode.			
<b>End-of-Service Time Indicator</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The SCBA shall have two end-of-service time indicators (EOSTI). A tactile alarm and a Heads Up Display (HUD).			

The primary EOSTI shall be the integral low pressure alarm device that shall combine an audible alarm with simultaneous vibration of the facepiece.			
The primary EOSTI shall be located in the Facepiece-Mounted Positive Pressure Regulator.			
This alarm device shall indicate either low cylinder pressure (33% +5%, -0%) or a malfunction of the primary pressure-reducing valve (first stage regulator).			
The HUD shall serve as the secondary EOSTI.			
The primary alarm must not rely on any electronics. Must be audible or shall vibrate in the face piece to alert the user.			
The secondary alarm will be HUD and shall be powered by the SCBA's single power supply.			
The HUD device will indicate when the air system is at pressures of 100%, 75%, 50% and 33%.			

The HUD shall be powered by the SCBA's single power supply.			
It shall be mounted in the user's field of vision on the Facepiece- Mounted Positive Pressure Regulator.			
At full bottle pressure, two green Light Emitting Diodes (LED) shall be illuminated.			
At three-quarter bottle pressure, one green LED shall be illuminated.			
At one-half bottle pressure, one "yellow" LED shall be illuminated and flash at a rate not to exceed one (1x) time per second.			

At one-third bottle pressure, one "red" LED shall be illuminated and flash at a rate not to exceed ten (10x) times per second.			
The HUD display shall have a low battery indication that is distinct and distinguishable from the bottle pressure indications.			
<b>Voice Amplifier Capabilities</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The respirator shall have an optional face-piece-mounted voice amplification device to electronically project the user's voice.			
The voice amplification device shall be mounted to the facepiece by means of a bracket that is secured to the facepiece.			

The device shall contain a bayonet-style mounting fixture that enables the user to insert the voice amplifier into the bracket and secure it with a quarter-turn counter-clockwise when it shall lock into place.			
The device shall contain a thumb latch to permit removal when it is pressed and the device is rotated a quarter-turn clockwise.			
The thumb latch shall contain a captive screw that enables the user to prevent removal.			
The device shall weigh no more than 7 ounces 225 (grams) and its size shall not exceed the following dimensions: Length: 3.50 inches; (8.89 cm); width: 2.0 inches (5.08 cm); depth (extension from voice emitter): 1.75 inches (4.44 cm). The switch shall be covered with a sheath made of a silicone material.			
The device shall be able to be upgraded to a voice amplifier, radio interface, and stand-alone radio communication system that all reside in a single housing with a single power source.			

The device shall contain a momentary on/off switch with a tactile indication and audible click when depressed.			
The switch shall be covered with a sheath made of a silicone material.			
The device shall contain an LED which illuminates green when the device is activated and flashes once per second when a low battery condition (approximately 10% of battery life remaining) is present.			
The device shall provide audible tones to indicate that the system has been energized, deenergized and to provide a low battery indication.			



The device shall be powered by “AAA“alkaline batteries, which shall provide no less than 50 hours of continuous operation with fully-charged batteries.			
The batteries shall be contained in a gasket sealed compartment secured in place by means of a fastener.			
The door of the battery compartment shall be user replaceable.			
The device shall contain an automatic shutdown function that de-energizes the voice amplifier approximately 20 minutes after the last time the user speaks.			
Designed to conserve battery life when a user forgets to turn off the voice amplifier, the voice amplifier shall be reactivated after shut down by pressing the on/off switch.			
The microphone shall be located on the surface of the bayonet mounting fixture and voice projection shall be facilitated by means of a circular gasket that seals the device to the communications mounting bracket.			
The amplifier shall contain a custom speaker designed for pushing sound through background noises commonly found at emergency events.			
The device shall not feedback for longer than 1 second when worn on a level A hazmat suit.			
The device shall be able to provide a minimum STI score of 0.65, even though NFPA minimum requirement is 0.60.			
The voice amplifier, when attached to a facepiece, shall be able to withstand a 30-minute tumble test.			

A single voice amplifier shall be able to withstand eight, 6 foot drops, once on each side and on two edges.			
The voice amplifier shall be able to withstand a 30-minute tumble test not attached to the facepiece.			
<b>Warranty</b>	<b>Meets</b>	<b>Does Not Meet</b>	<b>Exception</b>
The unit shall be covered by a warranty providing protection against defects in materials or workmanship.			
This warranty shall be for a period of 10 years on the SCBA, except for the pressure reducer, which shall be covered for 15 years.			

### **Pricing**

**Please submit price for the specified items of 6 complete SCBA's (pack, cylinder, regulators, hoses, and facemask with voice amplifiers) and 6 spare cylinders and valves on last page.**

**Please also include pricing for the items on the following page.**

Please also submit pricing for each item listed below.

<b>SCBA Backframe</b>	<b>Price Per Unit</b>
<b>4500 psig Basic Air Pack with PASS and Dual EBSS – Aluminum Backframe</b>	
<b>4500 psig Basic Air Pack with PASS and Dual EBSS – Composite Backframe</b>	

<b>SCBA Facepiece</b>	<b>Price Per Unit</b>
<b>SCBA Facepiece</b>	
<b>SCBA Facepiece with Voice Amp and Facepiece Bracket</b>	
<b>Add Thermal Imaging to Facepiece</b>	

<b>Cylinders with CGA Cylinder Connection</b>	<b>Price Per Unit Options</b>
<b>4500 psig Carbon Cylinder – 30 Minute</b>	
<b>4500 psig Carbon Cylinder – 45 Minute</b>	
<b>4500 psig Carbon Cylinder – 60 Minute</b>	

**This contract pricing will be extended and guaranteed to any and all units of local governments/political subdivisions including but not limited to county fire departments, city fire departments, volunteer fire departments, county government, municipalities and/or police agencies, other local public or public safety agencies or authorities within the State of Tennessee and the state universities and colleges.**

**Erwin Fire Department**  
**REQUEST FOR BIDS**  
**6- COMPLETE SCOTT SCBA'S AND**  
**6 -SPARE CYLINDER AND VALVE ASSEMBLIES**

**BID SHEET**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Does the proposed equipment meet the requested specifications? \_\_\_ Yes, \_\_\_ No.  
If not please attach a complete description of any variances.

**TOTAL BID FOR 6 COMPLETE SETS OF SCBA EQUIPMENT ,  
6 SPARE SCBA CYLINDERS AS SPECIFIED.**

\$ \_\_\_\_\_ DOLLARS & \_\_\_\_\_ CENTS

Delivery time after issuance of Purchase Order \_\_\_\_\_

Vendor: \_\_\_\_\_

Signature: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ St: \_\_\_\_\_ Zip \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_