

# 2020 SCBA Bid

The City of Dyer requests your bid as to the following specifications:

Bids should include:

- Total price for specifications (on supplied bid sheet)
- Any exceptions to specifications (marked "Yes" or "No" on checklist, attach explanation of exception)
- Complete Specifications for Equipment Bid

Bids will be evaluated based on compliance with the specifications listed, as well as the reputation of the original equipment manufacturer, and the reputation of the dealer submitting the bid.

Bids will be accepted at Dyer City Hall, 105 S. Main St, Dyer, TN until 2:00 p.m., Thursday, December 17, 2020 when bids will be opened and read aloud. Questions should be directed to the Dyer City Hall at (731) 692-3767. The City of Dyer reserves the right to accept and/or reject any and all bids, as well as to permit any exceptions.

## SCBA

### Facepiece

#### 1.1 Body

- Y\_\_\_ N\_\_\_ a. The facepiece shall utilize two independent sealing edges, providing three sealing rings.
- Y\_\_\_ N\_\_\_ b. Should there be a leakage in the outer sealing ring area, there are two additional sealing rings to maintain a seal.
- Y\_\_\_ N\_\_\_ c. The facepiece shall adapt to all facial contours and provide excellent fit factors. The face mask must be available in 3 different sizes (S, M, and L).
- Y\_\_\_ N\_\_\_ d. The size of the facepiece body must be clearly identified on the mask body with the letters S, M, L.
- Y\_\_\_ N\_\_\_ e. The facepiece body shall have a large chin support to locate and support the chin and provide an excellent seal
- Y\_\_\_ N\_\_\_ f. The facepiece shall be available in EDPM for maximum protection from chemical and warfare agents (CBRN).
- Y\_\_\_ N\_\_\_ g. With the LDV removed and the facepiece donned, the wearer shall be able to breathe freely.
- Y\_\_\_ N\_\_\_ h. The pulling force of the head harness shall not be directly applied to the sealing rings to minimize deformation of the seal and prevent leakage.
- Y\_\_\_ N\_\_\_ i. The facepiece body shall have only two openings, lens and front port connector, to minimize the possibility of leakage.

#### 1.2 Nose Cup

- Y\_\_\_ N\_\_\_ a. Nose cups shall come in three (3) different sizes, 1, 2, and 3 (S, M, and L).
- Y\_\_\_ N\_\_\_ b. The facepiece shall have a nose cup fitted as standard that reduces CO2 to an average value of less than 1% by volume.
- Y\_\_\_ N\_\_\_ c. The nose cup shall be easily removed or replaced without the use of tools, for ease of cleaning and disinfecting.

#### 1.3 Lens

- Y\_\_\_ N\_\_\_ a. The lens material shall be of robust and heat resistant material for higher impact, flame and radiant heat resistance fulfilling the requirements of NFPA 1981 (Radiant Heat and Convective Heat Test).
- Y\_\_\_ N\_\_\_ b. The effective field of vision shall be of maximum size based on a three dimensional shape.
- Y\_\_\_ N\_\_\_ c. The facepiece shall be designed so that air from the cylinder passes over the facepiece lens prior to inhalation to prevent fogging on the inside of the lens.

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- Y\_\_\_ N\_\_\_ d. The lens shall meet the scratch resistance test for the latest revision of NFPA 1981. It shall be coated on both sides.

### 1.4 Lens Frame

- Y\_\_\_ N\_\_\_ a. The lens frame material shall be a non-conductive robust composite material for improved lens protection in the event of shock or vibration.
- Y\_\_\_ N\_\_\_ b. The lens frame shall be held together by two screws and two nuts for quick and easy lens replacement.
- Y\_\_\_ N\_\_\_ c. The lens frame material shall be of robust and heat resistant material for higher impact, flame and radiant heat resistance fulfilling the requirements of NFPA 1981 (Radiant Heat and Convective Heat Test).

### 1.5 Speech Diaphragm

- Y\_\_\_ N\_\_\_ a. The mask shall be fitted with a speech diaphragm offering a clear voice transmission and fulfilling the requirements of NFPA 1981 (Mechanical Voice Diaphragm Test).
- Y\_\_\_ N\_\_\_ b. The speech diaphragm shall be protected from damage to prevent damage or puncturing.

### 1.6 Exhalation Valve

- Y\_\_\_ N\_\_\_ a. The exhalation valve shall be protected by a cover.
- Y\_\_\_ N\_\_\_ b. The exhalation valve cover can be secured by a stainless steel screw.
- Y\_\_\_ N\_\_\_ c. The exhalation valve cover and exhalation valve shall be easily removed without the use of special tools for ease of cleaning and decontamination.

### 1.7 Hairnet

- Y\_\_\_ N\_\_\_ a. The 5-point attached hairnet shall be made from a flame retardant Kevlar/Nomex material with replaceable 4-point adjustment straps.
- Y\_\_\_ N\_\_\_ b. The hairnet straps shall be easily removable.

### 1.8 Front port

- Y\_\_\_ N\_\_\_ a. The mask shall be equipped with a robust and easy to handle plug in front port for the use of a lung demand valve for a positive pressure system.
- Y\_\_\_ N\_\_\_ b. The front port shall provide a 360° movement for the connected lung demand valve.
- Y\_\_\_ N\_\_\_ c. The exhalation breathing resistance of the system with connected lung demand valve shall be as low as possible in order to offer the user a safe but high breathing comfort.

### 1.9 Protective cap

- Y\_\_\_ N\_\_\_ a. The facepiece shall include a protective cap covering the front port as standard to eliminate the collapse of the front port onto the wearer's face in the event of a fall.
- Y\_\_\_ N\_\_\_ b. The protective cap must be easily removed without the need of special tools.

### 1.10 Communication System – COM-System (Optional)

- Y\_\_\_ N\_\_\_ a. As an option for the facepiece a fully integrated mask communication system shall be available which consists of different modules:
- Voice amplifier for a better direct communication among each other
  - Radio communication system for the communication via long distance in combination with a radio with voice amplifier
- Y\_\_\_ N\_\_\_ b. The voice communication system shall fulfill the requirements of NFPA 1981 (Mechanical Voice Diaphragm & Voice Communication System Test)

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- Y\_\_\_ N\_\_\_ c. The integrated voice amplifier communication system must have a speaker on both the left and right side of the face pieces cap to allow for “surround sound” amplification.
- Y\_\_\_ N\_\_\_ d. The speakers must be flush mounted to the cap so not to protrude out from the mask.
- Y\_\_\_ N\_\_\_ e. The radio interface system shall connect directly to the voice amplifier system.
- Y\_\_\_ N\_\_\_ f. The radio interface shall include an ear speaker and a cable that will connect to a radio connector.
- Y\_\_\_ N\_\_\_ g. If no external PTT shall be used a Push-to-Talk button can optionally be integrated on left side of the mask.
- Y\_\_\_ N\_\_\_ h. The COM-system must be powered by either 2 AAA or AA batteries.
- Y\_\_\_ N\_\_\_ i. On the right side the unit must have an on/off switch.
- Y\_\_\_ N\_\_\_ j. On the left side the unit must have an on/off light.
- Y\_\_\_ N\_\_\_ k. A speech diaphragm is required to provide back up in the event of battery or communication unit failure.
- Y\_\_\_ N\_\_\_ l. The housing of the unit shall if adapted work as a protective cap.

### 1.11 Other

- Y\_\_\_ N\_\_\_ a. The facepiece shall have a provision for using spectacles without breaking the integrity of the facepiece seal.
- Y\_\_\_ N\_\_\_ b. The spectacle kit shall not mount directly on the lens.
- Y\_\_\_ N\_\_\_ c. The facepiece shall employ a flame retardant neck strap that has an extra button tab to position the facepiece on the wearer’s chest to reduce the potential for dirt ingress when not donned or in use.
- Y\_\_\_ N\_\_\_ d. The facepiece shall have an integrated transponder with an individual serial number permanently fixed to the mask.
- Y\_\_\_ N\_\_\_ e. The facepiece shall have an individual serial number permanently marked on the mask.

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## 2 SCBA

### 2.1 Back Plate, Harness Assembly

- Y\_\_\_ N\_\_\_ a. The back plate shall be a two-piece, anti-static carbon fiber composite construction with orthopedic design so as to evenly distribute the weight of the SCBA over the user’s lumbar region, hips and shoulders.
- Y\_\_\_ N\_\_\_ b. The back plate must have a 3 position multi height adjustment so as to customize the back plate to the wearer’s torso.
- Y\_\_\_ N\_\_\_ c. The height adjustment of the back plate must be marked with size markings SML.
- Y\_\_\_ N\_\_\_ d. The back plate waist belt shall be designed to move in a vertical up and down movement to provide maximum movement when bending forward and stretching. The waist comfort pad shall automatically set in the correct donning position.
- Y\_\_\_ N\_\_\_ e. The waist pad shall swivel, pivot and slide vertically to increase comfort and stability when moving.
- Y\_\_\_ N\_\_\_ f. The back plate shall have two (2) handles one on either side of the back plate so to allow carrying the SCBA or for ease of donning or to assist in dragging a firefighter in the event of a rescue.
- Y\_\_\_ N\_\_\_ g. The back plate shall extend below the cylinder valve to afford additional protection to valve and regulator, and also to protect the wearer’s tailbone in the event the user falls backward.
- Y\_\_\_ N\_\_\_ h. The internal padding of both shoulder and waist pads shall be of a closed cell construction to eliminate water absorption and provide maximum comfort.
- Y\_\_\_ N\_\_\_ i. The shoulder and waist padding must be constructed from a high abrasion resistant, high puncture resistant, slip resistant vulcanized rubber (chloroprene) outer layer that is permanently bonded to the base material.

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- Y\_\_\_ N\_\_\_ j. The shoulder and waist padding shall be waterproof, quick drying (outer layer), chemical resistant and fire retardant.
- Y\_\_\_ N\_\_\_ k. The harness webbing shall be constructed of a heavy duty, high temperature aramid type material.
- Y\_\_\_ N\_\_\_ l. The shoulder pads shall be designed with an ergonomic body contoured "S" comfort style shoulder pads to maintain its shape and latitude when worn, providing comfort and freedom of movement. The shoulder pads shall be at least 2.5 inches wide and the waist belt padding shall be at least 4 inches wide for optimal support. Shoulder and waist belt harnessing shall be independently adjustable.
- Y\_\_\_ N\_\_\_ m. The shoulder and waist pads shall have pre-formed channels to allow for increased flexibility as well as increased air flow to decrease the possibility of compression burns.
- Y\_\_\_ N\_\_\_ n. Shoulder and waist adjustment friction buckles shall be of stainless steel construction with a curve inward toward the wearer to eliminate any potential for snagging.
- Y\_\_\_ N\_\_\_ o. Adjusting straps of both shoulder and waist shall have a stiffened, 3-4 inches long end grips.
- Y\_\_\_ N\_\_\_ p. Each shoulder and waist harness padding must be easily detached from the back plate by a quick release button only. This will allow for cleaning and disinfection of the harness if requires without the use of tools.
- Y\_\_\_ N\_\_\_ q. The waist belt shall utilize a metal seat belt style buckle. The waist belt shall allow a quick and easy adjustment (twin pull forward) of the waist belt, even when seated in an apparatus jump seat.
- Y\_\_\_ N\_\_\_ r. A cam-lock mechanism shall be used to secure the cylinder strap in place to ensure simple and secure operation.
- Y\_\_\_ N\_\_\_ s. The cylinder strap shall accommodate all types and sizes of cylinders without the use of tools.
- Y\_\_\_ N\_\_\_ t. The cylinder strap shall be easy to detach from the backplate without the use of tools for cleaning and disinfection.
- Y\_\_\_ N\_\_\_ u. The cylinder strap must have a stainless steel insert (between the webbing) to form the shape of the cylinder
- Y\_\_\_ N\_\_\_ v. The pneumatic system shall be easy to detach from the backplate and harness.
- Y\_\_\_ N\_\_\_ w. Hoses shall be routed under the back plate to eliminate snag potential.
- Y\_\_\_ N\_\_\_ x. Hoses going over the shoulder shall be covered by a protective hose sleeve that is reflective and luminescent.

### 2.2 Integrated Electronic System

- Y\_\_\_ N\_\_\_ a. Central battery supply and electronic modules shall be housed in the "recess" of the back plate. These should be "snap-fit" connections, removable with a release key for ease of service and maintenance.
- Y\_\_\_ N\_\_\_ b. The battery supply shall utilize standard 5 x AA alkaline batteries that should provide a minimum of 12 months battery life.
- Y\_\_\_ N\_\_\_ c. The main electronic system shall have a dual pressure sensor, back up cell using a lithium CR123 battery and data transmitter for the wireless HUD system.
- Y\_\_\_ N\_\_\_ d. The 5 AA batteries must be housed in a waterproof battery housing. The battery housing must be tamper resistant. The complete battery housing must be removable by the use of a release key.

### 2.3 Cylinder and Valve Assembly

- Y\_\_\_ N\_\_\_ a. Cylinders shall be available in the following configurations: 30-minute 2216 psi carbon composite cylinder. When 4500-psi units are specified, the backplate shall accommodate 30, 45 or 60 minute 4500 psi carbon composite cylinder.
- Y\_\_\_ N\_\_\_ b. The cylinders shall have reflective markings for ease of visibility.

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### 2.4 Heads UP Display

- Y\_\_\_ N\_\_\_ a. The HUD system must be a wireless system with the mask receiver positioned inside the mask. The HUD system must automatically activate when the cylinder is opened, pressurizing the SCBA pneumatics.
- Y\_\_\_ N\_\_\_ b. The HUD system must be a wireless system.
- Y\_\_\_ N\_\_\_ c. The power supply must be a CR123 lithium battery.
- Y\_\_\_ N\_\_\_ d. The in-mask receiver LEDs lights must operate on a 60 second on/off cycle.
- Y\_\_\_ N\_\_\_ e. The initial display of LED lights must be visible for 24 seconds and off for 36 seconds. Subsequent LED light displays must be visible for a minimum of 12 seconds and off for 48 seconds.
- Y\_\_\_ N\_\_\_ f. The HUD shall consist of six (6) LEDs: one red, one amber, two green and two (2) LEDs for separate low battery and warning indicators.
- Y\_\_\_ N\_\_\_ g. The HUD shall be designed to fit inside the FPS 7000, 82018 edition facepiece without interfering with the user's field of vision.
- Y\_\_\_ N\_\_\_ h. The HUD shall be fixed inside the mask by way of a self-clamping method that is molded as part of the receiver.
- Y\_\_\_ N\_\_\_ i. The HUD shall be installed in the facepiece without the use of tools.
- Y\_\_\_ N\_\_\_ j. The HUD shall not require any fixing or holding screw to fix the in-mask receiver to the facepiece.
- Y\_\_\_ N\_\_\_ k. The HUD shall be interchangeable between FPS 7000 facepieces.
- Y\_\_\_ N\_\_\_ l. The HUD shall communicate with the transmitter/transducer via inductive loop technology (wireless).
- Y\_\_\_ N\_\_\_ m. The HUD and transmitter must operate in the 25-100 KHz frequency range.
- Y\_\_\_ N\_\_\_ n. The LEDs in the HUD shall automatically brighten or dim based on environmental conditions.
- Y\_\_\_ N\_\_\_ o. The auto-bright feature shall operate via a photocell.
- Y\_\_\_ N\_\_\_ p. The transmitter/transducer shall be integrated within the back plate.
- Y\_\_\_ N\_\_\_ q. The HUD system shall be NIOSH, NFPA 1981: 2018 edition, UL 913 and FCC Part 15 compliant.

### 2.5 First Stage Reducer

- Y\_\_\_ N\_\_\_ a. The first stage reducer shall be connected directly to the backplate via a spring loaded retention clip.
- Y\_\_\_ N\_\_\_ b. Optional cylinder quick connection system to allow cylinders to "snap" into position without using a CGA threading.
- Y\_\_\_ N\_\_\_ c. The cylinder quick connection system must be a one hand operation. The disconnection of the cylinder from the first stage must be done by turning the hand wheel a quarter of a turn in a clock wise direction. Then push the hand wheel down towards the first stage reducer.
- Y\_\_\_ N\_\_\_ d. The cylinder quick connection system must be able to fit other manufacturer's cylinders in the case of an emergency.
- Y\_\_\_ N\_\_\_ e. The failure mode of the first stage reducer shall be such that the reducer fails safe and always delivers air to the user.
- Y\_\_\_ N\_\_\_ f. The pressure gauge shall be routed over the left shoulder through loops and read in increments of 200 psi for accurate cylinder pressure readings.
- Y\_\_\_ N\_\_\_ g. An audible whistle alarm shall be located on the reducer. The warning whistle will alert the wearer when approximately 33% of the service life of the SCBA remains. The alarm shall meet the requirements NFPA 1981: 2018 standards for operation during a direct water spray.
- Y\_\_\_ N\_\_\_ h. The audible warning shall produce a sound of 90 dBA minimum when measured at 18 inches.
- Y\_\_\_ N\_\_\_ i. The warning shall operate when the cylinder pressure is less than or equal to the set pressure for the alarm.

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- Y\_\_\_ N\_\_\_ j. Optional airline connections shall be available for using SCBA as a supplied air respirator or for use as an emergency escape (buddy breather) system.
- Y\_\_\_ N\_\_\_ k. The first stage reducer shall consist of a balanced piston assembly.
- Y\_\_\_ N\_\_\_ l. The first stage reducer shall be capable of supplying 1000 l/min. of air at input pressures from 300 psi to 4500 psi.
- Y\_\_\_ N\_\_\_ m. The medium pressure shall be 87-130 psi. Medium pressure shall be reliably secured against accidental alteration and adequately sealed so any unauthorized adjustment can be detected.
- Y\_\_\_ N\_\_\_ n. The first stage reducer shall incorporate an integrated pressure relief valve to allow for any over pressurization of the medium pressure system. The relief valve shall open between 160 - 218 psi. The relief valve shall be protected from adjustment by the use of an anti-tamper device.
- Y\_\_\_ N\_\_\_ o. The reducer shall have an integrated RIC coupling right angle to the reducer.
- Y\_\_\_ N\_\_\_ p. The SCBA shall be fitted with a RIC UAC male fitting connected directly to the pressure reducer to allow refilling of the cylinder with breathing air.
- Y\_\_\_ N\_\_\_ q. The RIC coupling must point to the right side for easy access.
- Y\_\_\_ N\_\_\_ r. The RIC system must be positioned behind the reducer hand wheel for maximum protection and easy access.
- Y\_\_\_ N\_\_\_ s. To reduce damaging the RIC fitting, the RIC fitting should not point directly backward from the reducer or manifold area.
- Y\_\_\_ N\_\_\_ t. The SCBA wearer should be able to connect or disconnect the RIC filling hose while wearing the SCBA.
- Y\_\_\_ N\_\_\_ u. The distance between the leading edge of the CGA fitting on the SCBA cylinder valve and the leading edge of the RIC UAC male fitting shall be a maximum of 4 inches.
- Y\_\_\_ N\_\_\_ v. A self-resetting relief valve shall be installed on the RIC system to protect the cylinder from over pressurization.
- Y\_\_\_ N\_\_\_ w. The RIC UAC male shall be able to connect with any RIC UAC female fitting.
- Y\_\_\_ N\_\_\_ x. The RIC UAC fitting shall not interfere with any operation of the SCBA.
- Y\_\_\_ N\_\_\_ y. The RIC UAC fitting shall be equipped with a dust cap or sealing plug to prevent dust, dirt and debris from entering the RIC fitting.
- Y\_\_\_ N\_\_\_ z. Dust cap shall serve as a leak proof seal.
- Y\_\_\_ N\_\_\_ aa. The RIC UAC fitting coupling shall be capable of being connected and disconnected with one hand while under pressure.
- Y\_\_\_ N\_\_\_ bb. The RIC UAC fitting coupling shall have a 4500-psi operating pressure.
- Y\_\_\_ N\_\_\_ cc. The maximum fill time shall not exceed two (2) minutes.
- Y\_\_\_ N\_\_\_ dd. The RIT/UAC shall be capable of being used in an IDLH environment.
- Y\_\_\_ N\_\_\_ ee. The RIT/UAC shall incorporate a check-valve to prevent trans fill (i.e. transfer and equalization between two cylinders).

### 2.6 Lung Demand Valve (LDV) CBRN

- Y\_\_\_ N\_\_\_ a. The SCBA shall utilize a mask mounted LDV which connects to the facepiece by a simple push-in snap connection.
- Y\_\_\_ N\_\_\_ b. When connected to the facepiece, the regulator shall be capable of turning 360 degrees without being disconnected.
- Y\_\_\_ N\_\_\_ c. The regulator shall be capable of being reset to the donning mode while connected to the SCBA to allow the user to keep the mask in a ready position at all times.

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- Y\_\_\_ N\_\_\_ d. The LDV shall have a swivel at the medium pressure hose connection to provide easier head movement.
- Y\_\_\_ N\_\_\_ e. The LDV shall be CBRN approved along with the SCBA.
- Y\_\_\_ N\_\_\_ f. The LDV shall use the wearer's exhaled air to flush any contaminants away from the outside surface of the diaphragm, keeping the diaphragm free from any contamination.
- Y\_\_\_ N\_\_\_ g. The LDV shall utilize a quick disconnect coupling on the right shoulder that enables the LDV to be disconnected from the first stage. The quick disconnect shall not be capable of being accidentally disconnected.
- Y\_\_\_ N\_\_\_ h. The LDV shall be automatically activated to the positive pressure mode by the user's first inhalation. It shall take no more than a negative pressure of 15-millibar (6 in/H<sub>2</sub>O) to activate the positive pressure.
- Y\_\_\_ N\_\_\_ i. The LDV shall have a bypass valve that can be operated in either a pulse flow or hands-free continuous flow mode. The minimum flow rate through the bypass valve shall be 80-130 liters per minute in the continuous flow mode. Hands-free continuous flow mode shall be achieved by a 90° turn. Two red dots shall be used to determine at a glance if bypass is on.
- Y\_\_\_ N\_\_\_ j. The hose connecting the first stage regulator to the LDV shall be a small diameter, non-corrugated hose with a minimum pressure rating of 250 psi. This hose shall be routed over the right hand shoulder pad through a hose shroud such that the hose is close to the body.
- Y\_\_\_ N\_\_\_ k. A buddy breathing connection assembly (optional) shall be available with quick disconnect fitting for emergency tie-in of LDV hose fitting from another SCBA. This buddy breathing connection shall be located on the left waist belt and routed through a protective pouch. When required, the buddy breather shall also be useable as an airline connection.
- Y\_\_\_ N\_\_\_ l. The LDV shall be capable of supplying in excess of 500/min of air at input pressures of 300 psi.
- Y\_\_\_ N\_\_\_ m. The LDV shall maintain a positive pressure even at 150 psi and 300 l/min.
- Y\_\_\_ N\_\_\_ n. When attached to the facepiece, the LDV shall not begin the flow of air until the wearer inhales; First Breath Activation.

### **2.7 Integrated PASS/Electronic Gauge/Secondary Warning System**

- Y\_\_\_ N\_\_\_ a. The PASS shall be automatically activated when the SCBA is pressurized.
- Y\_\_\_ N\_\_\_ b. The PASS and electronic gauge device must be powered by a central battery supply integrated into the back plate.
- Y\_\_\_ N\_\_\_ c. When the PASS is activated, a multiple frequency tone shall sound to indicate the PASS is operational. The integrated PASS cannot be turned off while the SCBA is pressurized.
- Y\_\_\_ N\_\_\_ d. If the PASS detects no movement for a period of 20 - 23 seconds, the PASS will sound a 10-13 second "pre-alarm". After the pre-alarm, if there has still been no movement detected by the PASS, the unit shall go into full alarm.
- Y\_\_\_ N\_\_\_ e. The PASS alarm sounds at a minimum of 95 dBA multiple frequency tone alarm and cannot be blocked off on any one surface.
- Y\_\_\_ N\_\_\_ f. The PASS shall utilize a sensitive movement sensor to reduce the frequency of false alarms.
- Y\_\_\_ N\_\_\_ g. The PASS shall have a yellow alarm button on the front of the device that is easily accessible with a gloved hand.
- Y\_\_\_ N\_\_\_ h. The PASS shall be capable of working even in the event the pressure signal cable is broken.
- Y\_\_\_ N\_\_\_ i. The PASS shall be watertight and shall be intrinsically safe, in accordance with the NFPA 1982: 82018 standards.
- Y\_\_\_ N\_\_\_ j. The PASS shall be an approved part of the SCBA and meet the requirements of the current editions of NFPA-1981:2018 and NFPA-1982:2018 and 42 CFR, Part 84.

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- Y\_\_\_ N\_\_\_ k. The electronic gauge display shall have a numerical digital and analog indicator display, and back lit with the touch of a button.
- Y\_\_\_ N\_\_\_ l. The gauge shall have a battery life display and low battery alarm.
- Y\_\_\_ N\_\_\_ m. Actual real time breathing consumption rate shall be used to determine time to low pressure alarm.
- Y\_\_\_ N\_\_\_ n. Low pressure alarm shall be a non-aspirating whistle at the reducer and electronic chirp and flashing LEDs from the gauge.
- Y\_\_\_ N\_\_\_ o. The unit shall have an electronic low pressure alarm in the form of an electronic chirp or tone, which is distinct from all other alarms.
- Y\_\_\_ N\_\_\_ p. The secondary low-pressure alarm shall be an approved part of the SCBA and meet the requirements of the current editions of NFPA-1981: 2018 and 42 CFR, Part 84.
- Y\_\_\_ N\_\_\_ q. The SCBA shall have two rear PASS enunciators at the cylinder strap area.
- Y\_\_\_ N\_\_\_ r. The rear enunciators shall be on the left and right hand side of the back plate when the cylinder is in position.
- Y\_\_\_ N\_\_\_ s. Alarm sounders must have titanium & ceramic discs fitted to emit the warning sound at a minimum of 95db.
- Y\_\_\_ N\_\_\_ t. Four visual warning lights shall be positioned close to the rear enunciators, two lights on the top of the cylinder cradle and two lights on the bottom of the cylinder cradle. The light must flash red and blue.
- Y\_\_\_ N\_\_\_ u. The rear lights shall rapidly flash when the PASS alarm is activated.
- Y\_\_\_ N\_\_\_ v. The rear lights shall flash indicating low air
- Y\_\_\_ N\_\_\_ w. User ID shall be programmable via a smart card. (Optional item)
- Y\_\_\_ N\_\_\_ x. All data from the electronic unit shall be down-loadable wirelessly to a computer.
- Y\_\_\_ N\_\_\_ y. The electronic gauge must be able to display air capacity as (TTW) Time To Warning at all times.
- Y\_\_\_ N\_\_\_ z. When time to warning equals zero, cylinder shall have 33% air capacity remaining.

### **2.8 Extension hose for Buddy Breathing**

- Y\_\_\_ N\_\_\_ a. An extension hose for buddy breathing with a rubber pouch that can be attached to the waist belt shall be available as an option.
- Y\_\_\_ N\_\_\_ b. The hose length shall be 40 inches long and have one (1) female Rectus fitting and one (1) male Rectus fitting for connecting as a buddy breather to another fire fighter or connected to an auxiliary airline.



**2020 SCBA Bid  
BID FORM**

Bidder Name (Company): \_\_\_\_\_

Bidder Contact Phone: \_\_\_\_\_

Bidder Mailing Address: \_\_\_\_\_

\_\_\_\_\_

Bid for Airpacks (Qty 5) Delivered as Per Specification                      \$ \_\_\_\_\_

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