

**CHIEF: JORDAN WHITFORD** 

**DEPUTY CHIEF: JOHN KOCHENSPARGER** 

ASSISTANT CHIEF: MARK WINELAND

# **REQUEST FOR BIDS**

Sealed bids will be accepted by the St. Johns Fire Department for new SCBA in accordance with the attached specifications.

All bid response shall be addressed to:

Mindy Seavey, Clerk 100 East State Street, Suite 1100, P.O. Box 477 Saint Johns, MI 48879

Sealed bids will be accepted until 10:00 A.M on June 10<sup>th</sup>, 2024. All bids must be sealed and clearly marked "BID FOR SCBA" on the outside of the proposal. Bids will be opened publicly and read aloud immediately following the closing of the accepted bid timeframe.

All bids should remain firm and shall not be withdrawn for a period of thirty (30) days from the date of the bid opening.

All questions are to be directed to: Chief Whitford jwhitford@stjohnsmi.gov

If you choose not to bid, please mail or email a "no bid" letter by the above date and time.

The City of St. Johns reserves the right to reject any or all bids and to waive any defects in the bids in the best interest of the City of St. Johns and to accept the proposal which, in the opinion of the commission, best serves the interest and needs of the City of St. Johns.

If only one proposal is received, said proposal will be presented unopened to the city commission at their next regular meeting. The city commission, at said meeting, may or may not open and/or award based on the sole bid in the city commission's discretion.

The City of St. Johns does not discriminate on the basis of race, color, age, religion, sex, disability, and national origin; nor does it discriminate on the basis of handicap status and activities, as to employment or the provision of services. The City of St. Johns is an equal opportunity employer.





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The City of St Johns Fire Department is accepting sealed bids for Self-Contained Breathing Apparatus per the requirements listed below. Please mark comply if the SCBA you are bidding meets the requirements listed. If the SCBA you are bidding does not meet the requirements, please mark exception and detail why in an attachment explaining the reason.

### SCBA shall consist of the following major sub-assemblies:

- 1. Full face piece assembly.
- 2. Removable, positive pressure, mask-mounted regulator with air-saver switch
- 3. An automatic dual path redundant pressure-reducing regulator
- 4. A shoulder strap mounted, remote gauge indicating cylinder pressure on right side and able to change to the left side
- 5. A rapid intervention crew/universal air connection (RIC/ UAC)
- 6. A personal alert safety system (PASS) with accountability
- 7. 4500psi / 45 minute Carbon Cylinder and Valve assembly for storing breathing air under pressure
- 8. Buddy Breather UEBSS

9.	•	vith 6 – "AA" Batteries mounted in backframe. No batteries allowed shall power – HUD, Data Logger, Console, and Locator (Buddy) Lights.
	comply	exception

### **Regulatory Approvals:**

- 1. The SCBA shall be approved to NIOSH 42 CFR, Part 84 for chemical, biological, radiological and nuclear protection (CBRN).
- The SCBA shall be compliant to the NFPA 1981, 2018 Edition, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services. The SCBA shall be compliant to the NFPA 1982, 2018 Edition (if including optional PASS Device), Standard on Personal Alert Safety Systems.

#### **Facepiece Assembly:**

- 1. The facepiece shall have a large diameter inlet that enables both unrestricted breathing and voice communications, while also allowing for rehydration (oral) without having to remove the facepiece.
- 2. The facepiece shall enable connection of the mask-mounted regulator by way of a quarter (1/4) turn rotation in a single direction no expectations accepted for this.





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- 3. The facepiece shall interface with the mask-mounted regulator, without the use of tools, with an audible click to assure the user that the regulator is properly seated.
- 4. The facepiece nose cup assembly shall be available in three sizes, marked "S" for small, "M" for medium and "L" for large.
- 5. Multi-directional voice emitters shall be recessed on both sides of the facepiece and ducted directly to an integral silicone nose cup to enhance voice transmission around the user.
- 6. The facepiece shall meet the requirements of the NFPA 1981, 2018 Edition standard for nonelectronic communications.
- 7. The face seal shall provide a landing area with ridges to help improve the interface with protective hoods.
- 8. The facepiece shall incorporate a RFID tag for asset and maintenance tracking.
- 9. The facepiece shall be capable of submersion for cleaning and disinfecting. Facepiece Lens

	comply	exception	
Head H	Harness:		
1.	The head harness is a componer	nt of the facepiece assembly and	d shall have five points of susp

- The head harness is a component of the facepiece assembly and shall have five points of suspension connection, four of which shall be adjustable, made in the fashion of a net hood to minimize interference between securing of the facepiece and the wearing of head protection. 2.
- 2. The head harness shall be constructed of a para-aramid material for fire, first responder and CBRN applications.
- The head harness shall be available in three sizes to accommodate persons of varying facial shapes and sizes.

	comply	ovcontion	
	serviceability.		
4.	The head harness shall be designed for	easy removal from the facepiece	o assist with cleaning and

#### **Regulator:**

- 1. The mask-mounted regulator shall maintain positive pressure during flows of up to 500 standard liters per minute.
- 2. The mask-mounted regulator shall have an inline quick disconnect coupling.
- 3. The mask-mounted regulator shall connect to the facepiece by way of a quarter (1/4) turn rotation in a single direction.
- 4. An audible click shall provide notification that the mask-mounted regulator is securely attached to the facepiece.
- 5. The diaphragm shall include an integrated exhalation valve.





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- 6. The mask-mounted regulator shall be designed to direct the incoming air through a spray bar and over the inner surface of the facepiece lens for defogging purposes.
- 7. The mask-mounted regulator shall incorporate a Heads-Up Display (HUD) to provide visual alerts to the SCBA user of air status and critical alarm conditions.
- 8. The HUD shall provide visual alerts to the SCBA wearer for electronic personnel accountability report, evacuation, and system integrity alarm.
- 9. The mask-mounted regulator shall incorporate status lights to assist with remote identification of a user's SCBA air remaining.
- 10. When fully depressed, the latch mechanism shall act as an auto air-saver switch to stop the air flow.
- 11. An audible click shall provide notification that the latch is fully depressed, and the air-saver switch has been activated to stop the air flow.
- 12. The mask-mounted regulator shall require a quarter (1/4) turn rotation in a single direction for removal from the facepiece.
  comply exception

#### Pressure Reducer with a Quick-Change Cylinder Connection System:

- The pressure-reducing regulator shall be mounted at the waist on the back frame and be coupled to the cylinder valve through a stainless steel quick connect snout for engagement and sealing within the cylinder valve outlet.
- 2. The cylinder shall be secured to the pressure-reducing regulator with two pull-rings 180° from each other.
- 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 mask-mounted regulator.

\_\_\_\_\_ exception

### **End-of-Service Time Indicator (EOSTI):**

\_\_\_\_comply

- 1. The SCBA shall have two end-of-service time indicators (EOSTI). One shall be both a tactile and audible alarm, and one shall be a Heads-Up Display (HUD).
- 2. The primary EOSTI shall be the integral low-pressure alarm device that shall combine an audible alarm with simultaneous vibration of the facepiece.
- 3. The primary EOSTI shall be located in the positive pressure mask-mounted regulator.





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- 4. The HUD shall serve as the secondary EOSTI.
- 5. The HUD shall be powered by the SCBA's single power supply.
- 6. The HUD shall have a low battery indication that is distinct and distinguishable from the cylinder pressure indications.

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### **Backframe and Harness Assembly:**

- 1. 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.
- 2. 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.
- 3. The backframe shall include a shroud to streamline hose and wire management by minimizing exposure of the low-pressure hose and electronics molded cable.
- 4. The harness assembly shall include a waist pad and shoulder pads constructed of an outer shell material and incorporating a closed-cell foam design to help minimize water absorption.
- 5. The harness assembly shall include box-stitched construction with no screws or bolts.
- 6. The harness assembly shall be removable from the backframe without the use of tools.
- 7. The harness assembly shall be machine washable to help with exposure reduction.
- 8. The waist pad shall be attached to the backframe such that movement by the wearer provides natural articulation. Articulation shall be accomplished without the use of mechanical devices.
- The DRL shall be sewn into the shoulder harness assembly and shall provide a horizontal pull strength of 1000 lbs.

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#### Cylinder and Valve Assembly:

- 1. The cylinder valve shall be a "fail open" type, constructed of forged aluminum.
- 2. There shall be no mandatory maintenance required on the cylinder valve.
- 3. The SCBA shall be equipped with a Quick-Change cylinder connection, the cylinder valve shall be designed with a patented stainless steel quick connect snout that delivers air directly to the first stage pressure-reducing regulator. The quick connect snout shall be an integral part of the cylinder valve, rather than an adapter that threads onto the CGA fitting.
- 4. The SCBA is equipped with a Quick-Change cylinder connection, the cylinder valve shall be offered with a CGA 346 or CGA 347 fitting for the purposes of filling the cylinder only.





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- 5. If the SCBA is equipped with a Quick-Change cylinder connection, the fill fitting shall have a check valve to prevent flow from the cylinder.
- 6. The cylinder valve shall have an RFID tag molded into the elastomeric bumper with a universal RFID marking embossment.
- 7. The cylinder shall be a 45-minute duration based on the NIOSH breathing rate of 40 liters per minute (lpm). Cylinder Type Carbon-Wrapped
- 8. The cylinder shall be manufactured in accordance with Department of Transportation (DOT) specifications and meet the Transport Canada requirements with working pressures of 4500 psig.
- 9. 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.

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### Personal Alert Safety System (PASS) with Firefighter Locator:

- 1. The PASS Device shall be compliant to the NFPA 1982, 2018 Edition Standard on Personal Alert Safety Systems.
- Operation of this distress alarm shall be initiated with the opening of the valve of a charged SCBA cylinder.
- 3. The system shall operate from a single power source containing six "AA" batteries.
- 4. The system shall have a battery check function that provides an LED indication of battery status while the SCBA is not pressurized.
- 5. The locating system shall be programmable with eight alpha-numeric characters to provide identification information.
- 6. The PASS device shall contain two components: a Console and a Sensor Module.

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### Console:

- 1. The console shall be located on the user's right shoulder harness.
- The control console shall come with a mechanical (analog) pressure gauge that is angled at 30°.
- 3. The console shall contain an integral, edge-lit, mechanical pressure gauge that is automatically turned on by opening the cylinder valve.
- 4. 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.





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5.	The console shall contain a photo sensing diode that automatically adjust the brightness of the HUD		
	as the ambient lighting conditions change.		
	complyexception		
<u>Senso</u> i	<u> Module:</u>		
1.	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.		
2.	The sensor module shall contain a motion sensor that is sensitive to user hip movement to reduce false activations.		
3.	The sensor module shall contain redundant, dual sound emitters for the audible alarm and dual visual "buddy" indicator lights.		
4.	The visual indicators on the backframe-mounted sensor module shall flash green during normal operation.		
5.	·		
6.	The visual indicators shall flash orange when the SCBA has reached one-half cylinder pressure.		
7.	The visual indicators shall flash a combination of red, green, and white when the SCBA has reached 35% of the rated cylinder pressure.		
8.	The sensor module shall have a Bluetooth chipset integral to the unit to provide wireless connectivity to external devices.		
	complyexception		
	Warranty:		
1.	The SCBA shall be covered by a warranty providing protection against defects in materials and workmanship.		
2.	The warranty period shall be for as long as the SCBA is owned by the original purchaser.		
3.	This warranty shall not require a registration in order to activate.		
4.	This warranty shall not be contingent upon completing mandatory overhaul or recommended preventative maintenance.		
	comply exception		





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#### **Universal Emergency Breathing Safety System (UEBSS):**

- 1. The optional Universal Emergency Breathing Safety System (UEBSS) shall be approved to NIOSH 42CFR, Part 84 and NFPA 1981, 2018 Edition.
- 2. The UEBSS shall have one of each of the following requirements: (1) a manifold with one each of a Rectus socket and Rectus 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 socket and plug.
- 3. The UEBSS shall be positioned on the wearer's right side and shall be capable of allowing for six feet of hose between like systems.
- 4. The containment system shall include a pouch and shall be made of para-aramid materials and shall be capable of storing 36" of hose.
- 5. The pouch shall be attached to the SCBA by snap fasteners. \_\_\_\_ comply **General Requirements:** 1. Selling dealer shall have a service center, sales building (brick and mortar), and certified technicians that are located in the State of Michigan. \_\_\_\_comply exception 2. The winning bidder should have certified breathing air technicians that have been trained annually by the manufacture of the breathing equipment being supplied on this bid. They shall be able to perform all services and maintenance of equipment at the fire department's station. \_\_\_\_ comply exception 3. All equipment supplied on this bid shall be USA single sourced and assembled in the USA. exception \_\_\_\_comply 4. All shipping cost shall be included in this bid. exception comply





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Price Each	x = \$	
Qty: 40 Breath	ing Air Cylinders per above specifications (4500psi / 45-min	ute Duration)
Price Each	x = \$	
Qty: <b>25</b> Facep	eces with head nets per above specifications.	
Price Each	x = \$	
Qty: 25 Lightw	eight fleece mask bags.	
Price Each	x = \$	
	with Spare Facepiece to include 6 feet hose with RIC conne ag shall accommodate a 4500psi / 60-minute cylinder.	ctor, and 6 feet hose v
Price Each	x = \$	
Qty: 1 RIT Bag	Air Cylinders (4500psi / 60-minute Duration)	
Price Each	x= \$	