Request for Proposal for the Purchase of Self-Contained Breathing Apparatus (SCBA)

The Dafter Township Fire Department of Dafter, Michigan 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.

The Dafter Township Fire Department makes the final determination on the winning bid. Any and all bids can be rejected.

Award of the bid is to be funded in part with federal funds through the FEMA Assistance to Firefighters Grant (AFG). Funding is contingent upon compliance with all terms and conditions of funding award. All prospective bidders shall comply with all applicable federal laws, regulations, executive orders, Assistance to Firefighter grants (AFG)/FEMA requirements and the terms and conditions of the funding award. In addition, bidders providing submittals shall be responsible for complying with state law and local ordinances.

Questions regarding the bid information may be directed to Fire Chief Austin Conway, Dafter Township Fire Department: dafterfirechief@gmail.com

Sealed bids may be mailed to:

Mail one (1) original hard copy and one electronic copy submitted on a USB drive. Bid submittals shall be sealed and marked on the outside of the package "Self-Contained Breathing Apparatus and Accessories Bid." Sealed bid should be sent to Dafter Township Fire PO Box 129, Dafter MI 49724.

Historically Underutilized Businesses

Contracting with small and minority businesses, women's business enterprises, and labor surplus area companies. Dafter Township encourages all businesses, including minority, women-owned businesses to respond to all invitations to bid. In addition, if subcontracts are let, the awarded bidder must ensure that the necessary affirmative steps are taken: 1. Place is qualified small, minority, and women-owned businesses on solicitations lists. 2. Assure that such businesses are solicited when they are potential sources. 3. Divide total requirement, when economically feasible, into smaller tasks or quantities to permit maximum participation by such businesses. 4. Establish delivery schedules, where requirements permit, which encourage such businesses to respond. Prospective bidders shall include these special provisions in all subcontractors for this bid. Failure on the part of the offered to carry out the requirements set forth in the special provision may constitute a breach of this solicitation and after proper notification may result in termination of the award or other appropriate remedy.

FEMA Grant Requirements

The Contract shall include any additional terms and conditions under the federal requirements contained in 2 C.F.R. §200.317-326 necessary for FEMA to fully reimburse eligible expenses to the Township.

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Schedule of Events

The following Schedule of Events represents the best estimate of the schedule the Township will follow.

Request for Proposal Published 7/27/2023
Deadline for Proposal Submission – must be received in mail by 8/18/2023 at 1:00 P.M.
Public Opening of the Bids (Bids will be opening during normal Township Meeting) 8/22/2023 at 7:00 P.M.
Evaluation of Proposals 8/23/2023-8/25/2023
Notice of Intent to Award 8/28/2023

1. Letter of Intent to include:

a. Signature of an officer of the company authorized to bind the vendor to the proposal.
b. Company name, address, telephone number, and website.
c. Name, title, email address, and telephone number of the proposal contact person(s) who are authorized to represent the firm and to whom correspondence should be directed.
d. A brief statement of the understanding of the scope of products & services to be performed, and that the company meets and adheres to the requirements.

2. Company Background to include:

a. Narrative history of the company.
b. Number of years in the business of providing SCBA equipment.
c. Total number of Michigan Fire Department clients.

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. The SCBA should be powered with 6 – “AA” Batteries mounted in backframe. No batteries allowed in facepiece. These 6 batteries shall power – HUD, Data Logger, Console, and Locator (Buddy) Lights.

_____ comply _____ exception

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Regulatory Approvals:

1. The SCBA shall be approved to NIOSH 42 CFR, Part 84 for chemical, biological, radiological and nuclear protection (CBRN).
2. 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.

_____ comply _____ exception

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.
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 shall include a face seal that is secured to the lens by a U-shaped bezel using no more than two fasteners.
5. The facepiece nose cup assembly shall be available in three sizes, marked “S” for small, “M” for medium and “L” for large.
6. The facepiece assembly, including head harness, shall not be made with natural rubber latex.
7. 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.
8. The facepiece shall meet the requirements of the NFPA 1981, 2018 Edition standard for nonelectronic communications.
9. The face seal shall provide a landing area with ridges to help improve the interface with protective hoods.
10. The facepiece shall incorporate a RFID tag for asset and maintenance tracking.
11. The facepiece shall be capable of submersion for cleaning and disinfecting.

_____ comply _____ exception

Head Harness:

1. 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. The head harness shall be constructed of a para-aramid material for fire, first responder and CBRN applications.
3. The head harness shall be available in three sizes to accommodate persons of varying facial shapes and sizes.

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

_____ comply _____ exception

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.
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 and surrounding personnel 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. The HUD shall be recessed into the mask-mounted regulator body to help improve downward visibility through the facepiece.
11. When fully depressed, the latch mechanism shall act as an auto air-saver switch to stop the air flow.
12. 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.
13. 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:

1. 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.
3. 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.

4. The back-up pressure-reducing valve shall also be the means of activating the low-pressure alarm devices in the mask-mounted regulator.

_____ comply _____ exception

End-of-Service Time Indicator (EOSTI):

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.
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.

_____ comply _____ exception

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.
9. The DRL shall be sewn into the shoulder harness assembly and shall provide a horizontal pull strength of 1000 lbs.

_____ comply _____ exception

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.
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.

_____ comply _____ exception

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.
2. 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.

_____ comply _____ exception

Console:

1. The console shall be located on the user’s right shoulder harness.
2. 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.
5. The console shall contain a photo sensing diode that automatically adjust the brightness of the HUD as the ambient lighting conditions change.

_____ comply _____ exception

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Sensor Module:

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. The visual indicators shall flash red when the device is in pre-alarm and full-alarm.
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.

_____ comply _____ exception

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

Universal Emergency Breathing Safety System (UEBSS):

1. The 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 _____ exception

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General Requirements:

1. 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
2. All equipment supplied on this bid shall be USA single sourced and assembled in the USA.

   _____ comply _____exception

3. The winning bidder shall provide training on operation of all equipment supplied on this bid annually if requested by fire department for no charge.

   _____ comply _____exception

4. All shipping cost shall be included in this bid. All items should be delivered the same day.
   _____ comply _____exception

5. All SCBA cylinders should be new and within 6 months of original manufacture date. Dafter Township will not accept any cylinders older than 6 months.
   _____ comply _____exception
6. SCBA Fit testing should be provided within 30 days of delivery at no charge for all members of Dafter Fire. Approximately 15 Firefighters.
   _____ comply _____exception

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Pricing:

Qty: 8 Self Contained Breathing Apparatus Back Frame and Harness Assembly per above specifications (4500psi).
Price Each _____ x 8 = $ _____

Qty: 16 Breathing Air Cylinders per above specifications (4500psi / 45-minute Duration)
Price Each _____ x 16 = $_____

Qty: 8 Face pieces with head nets per above specifications. (6 medium, 1 large, 1 small)
Price Each _____ x 8 = $_____

Grand Total = $_____

Estimated Delivery Date _____

Please provide a separate quote for the following items:
Qty: 2 medium Face pieces with head nets per above specification
Price Each _____ x 2 = $ _____
Qty: 1 large Face piece with head net per above specification
Price Each _____ x 1 = $ _____
Qty 1 small Face piece with head net per above specification
Price Each _____ x 1 = $ _____
Qty: 12 Face piece mask storage bags.
Price Each _____ x 12 = $ _____