



Request for Bids Self-Contained Breathing Apparatus (SCBA)

Miles City Fire Rescue

Bid Responses Due By: May 14, 2019 at 5:00 p.m.

Submittals shall be delivered by mail in a sealed package container or envelope clearly marked on the outermost portion of the package: SCBA Bid

Bids will be received by mail at: 17 S. 8th St. Miles City MT 59301

Questions Can Be Directed to:

Chief Branden Stevens

(406) 234-2235

bstevens@milescity-mt.org

Anticipated Schedule of Events

Advertising Period	April 19, 2019 – May 3, 2019
Question and Clarification Requests Due	May 10, 2019 at 5:00pm
Bids Due	May 14, 2019 by 5pm local time
Bid Opening	May 14, 2019
Anticipated Award Date	May 28, 2019

Miles City Fire Rescue

Request for Bids on Self Contained Breathing Apparatus (SCBA)

1. INTRODUCTION

1.1. Miles City Fire Rescue is seeking bids for purchase of self-contained breathing apparatus (SCBA) and related components. The SCBA and related components shall meet the minimum specifications listed below. Options are listed immediately following the minimum specifications. Proposals on the options are at the discretion of the vendor. All bids must conform to these specifications and be presented on the forms provided for that purpose. Miles City Fire Rescue, may also be referred to as MCFR or the Department.

2. BIDS

2.1. Bids must be submitted on the forms included in this document, and must be properly signed in the spaces indicated. Bids submitted otherwise will not be acceptable.

2.2. The Department reserves the right to reject any or all bids, waive technicalities, and to be the sole judge of suitability of the equipment or services for its intended use and further specifically reserve the right to make the award in the best interests of the Department. Other factors to be considered in awarding the bid will be price, quality, and time required to make delivery. Unless otherwise specified by the bidder, the Department reserves the right to accept any item in the bid and to award items to one single provider.

2.3. Failure to respond to any requirements outlined in this RFB, or failure to enclose copies of the required documents, may disqualify the bid.

2.4. Since time is of the essence, the date of delivery as shown in the Bid may be taken into consideration in the award or in the cancellation of the award for breach of contract.

2.5. A contract will be awarded after an evaluation of all bids have been made, and in the interest of suitability to the Department's needs and/or economy, equipment, furnishings or service other than the cheapest in price may be selected.

2.6 Bid security in the amount of ten percent (10%) of the bid must accompany each bid in accordance with the instruction to Bidders.

BID SECURITY:

Bid security shall be made payable to City of Miles City in an amount of not less than ten percent (10%) of the Bidder's maximum Bid price for the equipment in the form of one of the following:

- (1) Lawful monies of the United States,
- (2) A cashier's check, certified check, bank money order, or bank draft drawn and issued by a national banking association located in the State of Montana, or
- (3) A bid bond or bonds executed by a surety corporation authorized to do business in the State of Montana.

The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Contract, whereupon it will be returned; if the Successful Bidder fails to execute and deliver the Contract within 15 days of the Notice of Award, Owner may annul the Notice of Award and the Bid Security of the Bidder will be forfeited. Award may then be made to the next lowest responsible and preferred bidder or may be re-advertised, as the Owner may decide. The Bid Security of any Bidder whom Owner believes to have

a chance of receiving the award may be retained by Owner until after the effective date of the Contract or the ninety-first day after the Bid Opening whichever occurs first. Bid Security of other Bidders will be returned within fourteen days of the Bid Opening.

3. EXCEPTIONS TO SPECIFICATIONS

3.1. These specifications are based upon design and performance criteria which have been researched and analyzed by the department. Therefore, major exceptions to these specifications will not be accepted.

3.2. To the right side of each section for a particular specification, the bidder shall mark the column for "YES", "NO" or "EXCEPTION" indicating the exact compliance with the specification.

3.3. All deviations and exceptions, no matter how slight, shall be clearly explained in writing with the bid proposal. All exceptions must list the section and fully describe the exception or alternative.

3.4. Miles City Fire Rescue may choose to reject bids based on exceptions. Any exceptions that makes the SCBA non-compliant with the National Fire Protection Association's 2018 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus will result in the bid being rejected.

4. WARRANTY INFORMATION

4.1. Vendor shall state specifically in the bid the manufacturer's warranty regarding parts and labor, and the duration of the warranty in years. If separate parts of the SCBA/cylinder/face piece have different warranties, this shall be specified in the bid. The vendor shall state specifically any and all regularly scheduled maintenance and requirements outlined by the manufacturer to maintain any and all warranties.

4.2. Additionally, the vendor shall also provide specific information regarding where said maintenance can and/or should be performed (i.e., within Miles City Fire Rescue, manufacturer's service center, etc.).

5. COST OF OWNERSHIP

5.1. The vendor and/or manufacturer's representative shall, to the best of their ability, provide documentation and/or information regarding their SCBA's projected "cost of ownership" over a five, ten and fifteen-year period.

6. CONTACT

6.1. Questions regarding the specifications should be directed to Chief Branden Stevens (406) 234-2235 bstevens@milescity-mt.org.

7. MINIMUM SPECIFICATIONS OF THE SELF-CONTAINED BREATHING APPARATUS

7.1. It is the intent of these minimum specifications to describe certain equipment in sufficient detail to obtain competitive bids from qualified vendors for the furnishing and delivery of said equipment to be used by Miles City fire Rescue. All parts not specifically mentioned which are necessary to provide the described equipment shall be included in the proposal and shall conform in strength and quality or material and workmanship to what is usually provided for the trade in general. Any omissions of components in these specifications are inadvertent and should be included in the proposed SCBA.

	Meets Specification		
	Yes	No	Exception
Approvals			
SCBA shall be approved by the National Institute for Occupational Safety and Health (NIOSH), under 42 CFR, Part 84 for chemical, biological, radiological, and nuclear protection (CBRN) with 45 or 60 minute-rated service life and compliant with all requirements of the National Fire Protection Association's 2018 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus.			
Units equipped with integrated PASS device must meet requirements of NFPA 1982, 2018 edition.			
Face piece	Yes	No	Exception
Face piece shall have removable inhalation check valve to prevent exhaled air from entering and contaminating the second stage regulator			
Face piece shall have open port to provide miniscule breathing resistance when regulator is not attached.			
Face piece shall not contain electronic components.			
Face piece shall provide means to display to user with visual indicators for HUD.			

Face piece shall have regulator attachment that does not bear any weight on lens.			
Face piece shall have effective field of view of 86% and overlapping field of view of 122% without attached component.			
Face piece shall be available in three sizes in Hycar Rubber (small, medium, large).			
Face piece shall have nose cup comprised of silicone rubber and available in three sizes (small, medium, large).			
Face piece shall have three head harness options constructed of flame/heat resistant assembly: Kevlar Head Harness (4-pt. adjustable), Kevlar 5-pt. adjustable and rubber 5-pt. adjustable.			
Face piece shall have universal lens that can be used with all three face piece sizes, shall be comprised of non-shatter type material and shall be field-replaceable.			
Lens shall be hard-coated on outside and anti-fog coated on inside.			
Face piece shall have optional flame/heat-resistant fabric or rubber neck strap to carry face piece in ready position for quick donning.			
Face piece shall have removable speaking diaphragm with aluminum- coated membrane, suitably protected and located centrally on face piece for optimal voice projection.			
Face piece shall have exhalation valve that is to be serviceable without special tools.			
Face piece shall be capable of water submersion for cleaning and disinfection.			
Face piece provides optional RFID chip for asset and maintenance tracking			
Mask-Mounted Regulator (Demand Valve): Push-to-Connect	Yes	No	Exception
When doffing regulator, regulator disengagement shall simultaneously stop air flow and release regulator.			
Regulator shall house electronic module that functions as microphone and HUD system.			
Regulator shall be equipped with variable flow bypass.			
Regulator shall not have exposed wiring in order to prevent snags and increase product durability.			
Regulator shall have two cover options: hard cover or purge cover.			
Regulator shall have fewer than 35 parts that are easily replaceable without special tools.			
Regulator shall have two options for air-supply hose: 1) Continuous hose from pressure reducer to regulator. 2) Quick-connect hose that terminates on shoulder in front of user.			
Regulator must be equipped with positive protection Tetraplex Shield membrane that covers diaphragm, preventing permeation of CBRN agents.			
Regulator shall have optional RFID chip for asset and maintenance tracking.			

Heads-Up Display (HUD)	Yes	No	Exception
Heads-Up Display (UD) System shall be integrated within regulator, eliminating snag hazards and increase product durability.			
HUD shall be powered from central power system.			
HUD System shall eliminate cross-talk among firefighters.			
HUD System shall be immune to radio frequency interference (RFI) and must function properly in close proximity to fire service hand-held radios.			
HUD System shall separate pressure indicators from status indicators: Left: status indicators. Right: pressure indicators.			
HUD system shall provide user with remaining cylinder air volume, available in four increments through series of four colored LEDs: Four green lights 76 to 100% cylinder volume Three green lights 51 to 75% cylinder volume Two flashing amber lights 36 to 50% cylinder volume One flashing red light 0 to 35% cylinder volume			
HUD status indicators shall be icon-based and display battery life warning, PASS alarms, EVACUATE indicator, and secondary alarm indicator.			
HUD shall incorporate photoelectric sensor that senses ambient light conditions, automatically adjusting display to one of multiple pre-programmed light intensities.			
Buddy lights shall be visible from outside of firefighter's face piece.			
HUD system shall allow user to select from four modes of operation: 1) Continuous pressure mode that shall always have pressure LEDs on. 2) Intermittent pressure mode that shall turn on first three increments when reached for 20 seconds. 3) Oscillating pressure mode that shall brighten and dim LEDs every 20 seconds. 4) Mixed pressure mode that shall turn on first two increments when reached for 20 seconds and last two increments are in continuous mode			
HUD shall be field-removable and replaceable without use of special tools.			
Universal Air Connection (UAC)	Yes	No	Exception
System shall be capable of: 1) Refill within immediately dangerous to life or health (IDLH) atmospheres. 2) Quickly refilling (approximately one-minute duration) SCBA cylinder from mobile compressor, cascade system or RIT pack.			
Primary UAC shall be illuminated when supply pressure reaches Low Pressure Warning Alarm or can be configured to optional medium pressure warning alarm.			

Pressure Reducer (First-Stage Regulator) with Primary Low Pressure Warning Device	Yes	No	Exception
Pressure reducer shall incorporate downstream valve to ensure fail-safe design when in open position.			
Pressure reducer shall incorporate bell alarm mechanism.			
Bell alarm mechanism shall be an air-actuated, continuously ringing audible warning alarm, automatically operating when supply cylinder air pressure reaches approximately 35% of rated service life.			
Bell alarm mechanism shall cover multiple levels of frequencies to cover all hearing levels.			
Bell alarm mechanism shall be user-accessible while wearing SCBA.			
Pressure reducer reduces cylinder pressure to outlet pressure not to exceed 115 psi; outlet pressure must be adjustable.			
Pressure reducer shall have flow capacity of 700 liters per minute at full pressure.			
Pressure reducer shall have two options for cylinder connection type: threaded or quick-connect.			
Quick-connect connection shall not be removable from cylinder while under pressure.			
Pressure reducer shall have two options for cylinder connection location: remote connection or direct connection.			
Pressure reducer shall be capable of converting from threaded to quick-connect or vice versa.			
Pressure reducer body shall be constructed of high-strength aluminum alloy and anodized with Teflon hard coat to minimize corrosion and wear of internal and external components.			
Pressure reducer shall be sealed system that does not allow moisture to enter valve components.			
Pressure reducer shall have no more than 42 individual regulator replacement parts.			
Pressure reducer shall not require special tools for disassembly.			
Pressure reducer shall have two accessory ports, one medium pressure and one high pressure.			
Cylinders	Yes	No	Exception
Cylinders delivered not more than 90 days past their date of manufacture			
Cylinders with 2216 psig operating pressure must be 30-minute-rated. Cylinders with 4500 psig operating pressure must be available in 30-, 45- and 60-minute durations. Cylinders with 5500 psig operating pressure must be available in 30-, 45-, 60-, and 75-minute durations.			
Cylinders must be available in three operating pressures: 2216, 4500 and 5500 psig.			
Cylinder shall be constructed of deep-drawn, seamless aluminum liner that is fully wound over entire surface (except for thick neck area) with high-strength carbon fiber filaments impregnated with epoxy resin.			

Cylinder shall contain cylinder valve that shall incorporate pressure gauge to indicate cylinder pressure at all times. Pressure gauge face shall be luminescent. Hand wheel shall be placed at 90° angle from cylinder axis.			
Cylinder valve shall be available in two options: remote connection or direction connection			
Cylinder valve shall incorporate flow control insert to limit air flow overhand wheel's first half rotation, minimizing propulsion thrust in event that cylinder is mishandled.			
Cylinder valve shall incorporate CGA thread that can be converted to quick connect cylinder without special tools.			
Cylinder shall have bracket and boot that can be user-installed and provide positioning and added security of cylinder to back plate.			
PASS Device	Yes	No	Exception
PASS device shall contain power, control and battery modules.			
Power module shall provide power to all electronic SCBA components from battery module and act as central power system.			
Power module shall act as central command center, distributing all information and data among electronic components.			
Battery module shall be powered by six C-cell batteries or one lithium-ion rechargeable battery.			
Expected battery service life batteries shall be 4 to 6 months on average for units with speaker module (without telemetry) and 3 to 5 months on average with telemetry.			
PASS device shall designed for battery level check and removal of batteries while SCBA remains in jump seat.			
Power module shall be capable of illuminating UAC fitting when supply cylinder reaches 35% of rated service time.			
Control module shall have analog and digital display for added redundancy. Analog gauge must be positioned above digital display as viewed by user.			
Control module shall be equipped with full color graphical display. Display shall be reprogrammable and capable of future integrations. Display's background color coordinates with HUD pressure status.			
Control module shall automatically provide information to user when placed in upright position. Device can be manually activated by pressuring reset button.			
PASS device shall use single line to connect power and control module.			
Control module shall have two reset buttons that perform same function no matter which button is pressed.			
Control module shall have alarm button to activate full alarm and is to be illuminated.			

PASS device shall be capable of being reprogrammed to fire department standard operating procedures (SOP). Using PC software program, configuration tag can be created and tagged on each device needed. Reprogramming options are as follows: 1) Medium pressure alarm. 2) Pressure drop alarm. 3) Primary temperature alarm. 4) Secondary temperature alarm. 5) Audible low pressure alarm			
PASS device shall be equipped with buddy lights on firefighter's front and back and viewable from 360° view; two buddy lights on front of user and four buddy lights in back of user.			
PASS device shall have colored buddy lights: green (pressure above 50% and no alarms), yellow (pressure between 36 and 50%) or red (below 36% or alarms are active).			
Power module shall be equipped with dual sound emitters; sound emitters shall perform at minimum 100 dBA in room temperature.			
PASS device shall be capable of storing up to 25 hours of use information in event log form that are generated each time SCBA is pressurized. Event logs must indicate on/off cycles, alarms, alarm reset, and tagging events.			
PASS device shall be capable of storing periodic logs. Periodic logs must indicate cylinder pressure for each SCBA pressurization stored at 15-second intervals.			
PASS device's event and periodic logs shall provide ability to download to personal computer for maintenance records or for use in incident investigations.			
PASS device shall be immune to radio frequency interference (RFI) and must function properly in close proximity of fire service hand-held radios.			
PASS device shall have optional time-remaining display. Time remaining function must update calculations every 30 seconds based upon user's previous three minutes of air consumption. Initial calculation will appear after three minutes. Calculations can be made to zero pressure, low pressure alarm or medium pressure alarm.			
PASS device shall employ gasket perimeter seal to provide highest protection level against water ingress, while providing ability to upgrade or repair electronics.			
PASS device shall be capable of electronically storing user's name into memory via ID tag.			
PASS device shall be removable with no more than two screws.			
Control module shall have service mode that provides ability to see number of hours used, connect to PC and firmware versions.			
Control module shall incorporate rubber boot for added protection and is to be replaceable.			
Power and Control Modules shall have optional RFID chip for asset and maintenance tracking.			

Speaker Module	Yes	No	Exception
Speaker module shall provide amplified speech that removes inhalation breath noise.			
Speaker module shall provide at minimum, 70 dBa output.			
Speaker module shall turn on and off with PASS device.			
Speaker module shall be powered by central power system.			
Speaker module shall be capable of passing NFPA heat and immersion leakage test (not NFPA-required).			
Speaker module shall be positioned on chest and attached to shoulder straps.			
Speaker module shall be capable of being mounted on either shoulder.			
Speaker module shall easily be attached and removed without special tools.			
Speaker module shall have light to indicate that device is powered on.			
Speaker module shall have on/off button to allow user to manually power off as needed.			
Carrier and Harness	Yes	No	Exception
Shoulder harness shall have separate left and right pads for easier and less costly replacement.			
Shoulder harness shall have retro-reflective markings for better visibility within low light conditions.			
Shoulder harness shall have localized frictions pads on shoulders to prevent slippage.			
Shoulder harness shall be available in standard and serviceable tunnel.			
Shoulder harness shall have improved color stability up to 600 degrees Fahrenheit.			
Shoulder harness shall be capable of washing 40 times before color fastness fades.			
Shoulder harness shall have optional chest strap.			
Harness design shall have Kevlar webbing.			
Shoulder harness shall have accessory attachment point available for face piece or pouch and can be moved from left to right shoulder strap or vice versa.			
Shoulder harness shall differentiate pad inside from pad outside by color; pad inside is grey and outside is black.			
Waist pad shall be available in at least 3 options: 1) Basic – basic pad with straps attaching directly to back plate. 2) Fixed swiveling – standard pad attached to metal bracket that swivels in center and automatically centers. 3) Adjustable swiveling – standard pad attached to metal bracket that has three positions and automatically centers.			
Adjustable swiveling waist pad shall be one-handed operation and can be performed while on user's back.			
Back plate shall be capable of accepting all three waist pad designs.			

Back plate shall have two side handles and one top handle that are accessible with gloved hand.			
Back plate side handles shall be capable of 500 lbs. of force.			
Back plate top handle shall be capable of 1000 lbs. of force.			
Back plate cylinder band shall be available in two types: metal or fabric.			
Waist pad shall be of rigid construction to allow for easy donning and support.			
Waist straps shall be double-pull forward design.			
Harness design shall have regulator keeper for storage that can be attached to waist strap or chest strap.			
Regulator keeper shall allow regulator to be connected at any angle.			
Weight	Yes	No	Exception
Weight of SCBA shall not exceed 24 lbs.			
Weight of face piece (without regulator, with communications) shall not exceed 1.4 lbs.			
Weight of cylinder and valve assemblies (empty) shall not exceed: Carbon-wrapped L30 8 lbs. 0 oz. Carbon-wrapped H30-SL 7 lbs. 4 oz. Carbon-wrapped H45 9 lbs. 7 oz. Carbon-wrapped H45-SL 9 lbs. 10 oz. Carbon-wrapped H60-SL 11 lbs. 12 oz.			
Training and Fit Testing	Yes	No	Exception
The successful bidder shall provide, at no cost to the department, a technician level maintenance training class to six (6) members of the department. A description of how this training will be performed shall be included in the proposal. Required special tools for performing repairs, maintenance, and PC interface connection for PASS alarm (with software) shall be provided at this training.			
The successful bidder will submit a plan for training all department personnel how to use the SCBA. The training program shall be in a Power Point or similar format.			
The successful bidder shall provide initial fit testing for all members of the fire department. The fit testing shall comply with quantitative fit testing protocol per OSHA 1910.134 Appendix A Part I.c.3 (CNC (PortaCount) protocol). Fit testing shall include proper fit for each user with all sizes of face piece and nose cup being utilized to insure an adequate fit test is achieved. A computer generated report shall be provided to the department. The report shall include the information specified in OSHA 1910.134(m) records			
Pricing	Yes	No	Exception
The manufacturer shall provide a complete parts list with prices for the SCBA, Face piece and Cylinder. This shall be included with the bid.			
The vendor shall provide a guaranteed purchase price on the items and quantities for a period of twelve (12) months.			

Options Miles City Fire Rescue has identified the following options that it will consider in addition to the minimum specifications. Additional options will be considered given they fall within the available budget for the projects	Yes	No	Exception
1. Factory labeling of SCBA backpack/harness to identify ownership and to include Miles City Fire Rescue inventory numbering system.			
2. Factory labeling of cylinders with a Miles City Fire Rescue name/logo as an integral part of the cylinder wrap, add on or glued on stickers are not acceptable.			
3. Buddy Breather Attachment			

Required Item Quantity and Pricing

Item #	Quantity	Description	Price Each	Total Price
1	24	2013 Edition of NFPA-1981 4500 psig Compliant SCBA Complete with face piece and 4500 psig, 45 minute rated, low profile, Carbon-Wrapped cylinder, Chest Strap, Metal Cylinder Band, Adjustable Swiveling Lumbar, Purge Cover on Regulator, Continuous Regulator Hose, Left Shoulder Voice Speaker, No Telemetry, Rechargeable Battery		
2	24	4500 psig, 45 minute rated, low profile, Carbon-Wrapped cylinder		
3	24	Face pieces		
4	5	Spectacle kits for use with face piece		
5	2	Rechargeable Battery Charger		
6	2	Spare Batteries		
7	1	Air Purifying Respirator adapter with cartridge to be used with SCBA face piece for qualitative fit testing		
8	1	Shipping Cost to 2800 Main St. Miles City MT 59301		
Total Price of All Required Items				

Delivery time for required quantities to Miles City Fire Rescue once the order is placed:

Optional Item Quantity and Pricing

Item	Quantity	Description	Price Each	Total Price
1.	24	Factory Labeling of Backpack/Harness		
2.	24	Factory Labeling of Cylinders		
3.	24	Buddy Breather Attachment		
Total Price for All Options				

Miles City Fire Rescue

Request for Bids on Self Contained Breathing Apparatus

I, _____, as an authorized signer for my company hereby certify that the figures contained in this Bid Proposal are accurate and correct. I also have read and understand the specifications for the Miles City Fire Rescue, Self Contained Breathing Apparatus and submit this Bid Proposal for consideration.

Signed _____

Print Name _____

Title _____

Company _____

Mailing Address _____

Phone _____

Date _____