

THE CITY OF MENTOR
8500 CIVIC CENTER BOULEVARD
MENTOR, OH 44060

SPECIFICATIONS AND BID FORMS FOR THE FOLLOWING:

**Self-Contained Breathing Apparatus (SCBA) Mentor Fire Department,
Concord Township Fire Department and Perry Joint Fire District**

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CITY OF MENTOR
PURCHASING OFFICE

February 5, 2016

12:00 noon

ALL BIDS SUBMITTED MUST INCLUDE THE REQUIRED BID DEPOSIT AND A PROPERLY EXECUTED ***BID SUBJECT TO ACCEPTANCE AS CONTRACT***.

BID SUBJECT TO ACCEPTANCE AS CONTRACT PAGE AVAILABLE ONLY BY CONTACTING VERONICA FETSKO, fetsko@cityofmentor.com OR 440-974-5776.

I. LEGAL NOTICE

Sealed proposals will be received at the Purchasing Department, City of Mentor, 8500 Civic Center Boulevard, Mentor, Ohio until 12 Noon February 5, 2016 and will be opened and read immediately thereafter for the following:

**Self-Contained Breathing Apparatus (SCBA)
On behalf of City of Mentor Fire Department, Concord Township Fire
Department and Perry Joint Fire District**

**Contract A - Mentor Fire Department and Perry Joint Fire District
Contract B - Concord Township Fire Department**

Questions and Clarification Requests Due by: January 29, 2016 3:00 p.m.

Bids must be in accordance with specifications advertised on the City of Mentor website: www.cityofmentor.com/category/rfp or RFP's will be available for pick-up at the Purchasing Office for the cost of printing.

Kenneth J. Filipiak, City Manager

January 22, 2016

January 29, 2016

II.

INSTRUCTIONS TO BIDDERS

The Instructions to Bidders governs, except where amended by the Specifications.

The Bidder is responsible for reading and understanding all items herein:

1. Except as otherwise provided herein, the Instructions to Bidders, Proposal-Contract Form, and all specifications, drawings and other documents referred to herein shall be a part of the contract.

2. DEFINITIONS:

- A. The term "Bidder" or "Contractor" shall mean the corporation, partnership or individual proposing or under contract to furnish the material, labor, and/or equipment listed in the Specifications.
- B. The term "City" shall mean the City of Mentor, Ohio.
- C. "Calendar Day" shall mean every day shown on the calendar.
- D. "City Manager" shall mean the Mentor City Manager or his duly authorized representative.

3. PROPOSAL: To be entitled to consideration, a proposal must be made in accordance with the following instructions:

- A. Preparation: Each proposal shall be submitted on the forms furnished by the City. All signatures shall be clearly and legibly written in long hand. No oral, facsimile or telephonic proposal or modifications will be considered. Each proposal shall show the breakdown for each item as directed on the Proposal-Contract Form. All proposals shall be considered informal which contain items not specified in the Proposal-Contract Form.

Prices for material and equipment shall include transporting and delivery to any place designated on the City's purchase order, within the corporate limits of the City. In the event of a discrepancy between unit proposal prices and extension thereof, the unit proposal price shall govern.

- B. Names of Bidders: Each proposal shall give the full business address of the Bidder(s) and be signed by them with their usual signature. Proposals by partnerships shall furnish the full names of all partners and shall be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and title of the person signing.

Proposals by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and title of the President, Secretary or other person authorized to bind it in the matter.

The name of each person signing shall also be typed or printed below the signature. A proposal by a person who affixes to their signature the word "President," "Secretary," "Agent" or other title without disclosing their principal may be held to be the proposal of the individual signing.

When requested by the City, satisfactory evidence of the authority of the officer or agent signing on behalf of a corporation or partnership shall be furnished.

- C. Delivery: The proposal shall be sealed in an envelope, addressed to:

City of Mentor
c/o Purchasing Department
8500 Civic Center Boulevard
Mentor, Ohio 44060

and delivered to the office of the Purchasing Coordinator on the date set forth in the legal advertisement. The sealed envelope shall also bear the name of the Bidder, the general item(s) proposed, and the date the proposals are to be opened. Proposals will be received until the date and time specified in the legal advertisement. Proposals will be opened and read immediately thereafter, in 2nd Floor Conference Room, Mentor Municipal Center. Proposals received after the date and time specified will be returned unopened to the Bidder.

- D. Proposal to Include All Work: Each proposal shall include all equipment, material, supplies or services described in the Instructions to Bidders, Specifications, Proposal-Contract Form and all drawings.
- E. Withdrawal of Proposal: Permission will not be given to withdraw or modify any proposal after it has been deposited as provided above. Negligence on the part of a Bidder in preparing the proposal confers no right for the withdrawal of the proposal after it has been opened.
- F. Acceptance or Rejection of Proposal: The City reserves the right to accept any proposals within sixty (60) calendar days after the same are opened, as provided above. The City reserves the right to accept any proposals which, in its opinion, are deemed to be in the best interest of the City. The City reserves the right to reject any or all proposals.

In determining the award, each item may be considered separately, and separate contracts may be awarded on the various items, unless specified to the contrary in the Specifications.

- G. Proposal Bond or Check: Each proposal must be accompanied by a cashier's or certified check, an irrevocable letter of credit, or by a proposal bond, signed by a surety company authorized to do business in the State of Ohio, in the amount of five (5) percent of the proposal and made payable to the City of Mentor, as a guarantee that the contract will be honored in the event it is awarded to the Bidder, and as a guarantee that the Bidder to whom the contract is awarded will sign all documents necessary to formalize the contract, if any.
- H. Forfeiture of Check or Proposal Bond: If the Bidder to whom the contract is awarded shall fail to honor the contract, or fail to sign the documents necessary to formalize the contract, if any, the deposit accompanying the proposal shall thereupon be forfeited to the City for and as liquidated damages. The work may then be readvertised or awarded to the deemed second best Bidder as the City may determine.
- I. Quantities: The quantities of the work shown on the Specifications and Proposal-Contract Form are estimated by the City and will be used as the basis for comparison of the proposals only. The City reserves the right to decrease or increase any quantities and to eliminate any item(s) on the plans or proposal.
- J. Informal Proposals: Proposals may be rejected for the following reasons:
- 1) If the proposal is on a form other than that furnished by the City or if the form is altered or any part thereof detached.
 - 2) If there are any unauthorized additions, conditional or alternate proposals, or other irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
 - 3) If the Bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award. This does not exclude a proposal limiting the maximum gross amount of awards acceptable to any one Bidder at any one proposal letting, provided that the City will make any selection of awards.
 - 4) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum items.
4. A. Competency of Bidders: No proposal will be considered unless the Bidder submitting the same shall furnish evidence satisfactory to the City Manager that they have the necessary equipment, ability and financial resources to fulfill the conditions of the contract and Specifications. Previous experience and responsibility of the Bidders will be considered in awarding the contract. No contract will be awarded to any Bidder who is in arrears to the City upon debt or contract, or who is in default as surety or otherwise upon any obligation to the City.
- B. Disqualification of Bidders: Any of the following reasons may be considered as being sufficient for the disqualification of a Bidder and the rejection of their proposal or proposals.
- 1) More than one proposal for the same work from an individual, firm or corporation under the same or different names.
 - 2) Evidence of collusion among Bidders. Participants in such collusion will receive no recognition as Bidders for any further work of the City until any such participant shall have been reinstated as a qualified Bidder.
 - 3) Proposal prices that obviously are unbalanced.
5. WRITTEN AND ORAL EXPLANATIONS: Should a Bidder find discrepancies in, or omissions from, the drawings or Specifications, or should they be in doubt as to their meaning, they shall at once notify the City, which may send written instructions to all Bidders. The City will not be responsible for any oral instructions.
6. ADDENDUM OR MODIFICATION: Any addendum or modification issued during the time of bidding shall be covered in the proposal and in awarding a contract, such addendum or modification will become part thereof. In the event any such addendum or modification is issued by the City within 72 hours of the time set for the closing of proposals, excluding Saturdays, Sundays and legal holidays, the time for submitting proposals shall be extended one (1) week, with no further advertising of proposals.
7. TAX EXEMPTIONS: The City is exempt from federal excise and transportation taxes and Ohio State sales tax. Prices quoted should not include either federal excise or Ohio State sales tax. Tax exemption certificates covering these taxes will be furnished upon request.
- The transportation tax is not applicable on any purchase consigned to the City and no tax exemption certificate is required. If for any reason a contemplated purchase would not be tax exempt, this fact will be indicated in the Specifications, and such taxes may be included in the price or shown as a separate item in the proposal.
8. DISCRIMINATION: In hiring of employees for the performance of work under this contract or any subcontract, neither the Contractor, subcontractor, nor any person acting in their behalf shall by reason of race, creed, color, age, sex or handicap discriminate against any citizen of the State in the employment of any laborer or worker who is qualified and available to perform the work to which the employment relates.
- Neither the Contractor, subcontractor, nor any person in their behalf shall in any manner discriminate against or intimidate any employee hired for the performance of work

under this contract on account of race, creed, color, age, sex or handicap.

9. **INSURANCE:** If the Specifications indicate insurance is required, then the Contractor shall obtain and pay for the following types of insurance:

- (a) Commercial General Liability insurance with minimum limits of not less than \$1,000,000 combined single limit. Coverage is to include contractual liability, a per project general aggregate limit, primary and non-contributory other insurance provision, waiver of subrogation in favor of the City and additional insured status for the City including ongoing operations and products and completed operations. If such coverage is written on a Claims Made or Claims Made and Reported basis, (i) such coverage will have a retroactive date that is equal to or that precedes the date of the contract and be maintained for a minimum period of not less than three (3) years after the termination or expiration of the contract, (ii) may be replaced with other Claims Made or Claims Made and Reported coverage with a retroactive date that is equal to or that precedes the date of the contract and maintained for a minimum period of not less than three (3) years after the termination or expiration of the contract or (iii) may be cancelled after the termination of or expiration of the contract only if it is replaced by an extended reporting period with a duration of not less than three (3) years.
- (b) Automobile Liability insurance providing coverage for all owned, non-owned and hired automobiles with minimum limits not less than \$1,000,000 combined single limit. Coverage shall include additional insured status for the City and a waiver of subrogation for the City.
- (c) Worker's Compensation which meets all statutory minimum requirements

All policies must be written with insurance companies acceptable to the City. All policies are to provide the City with thirty (30) days advanced written notice of cancellation or non-renewal with the exception of cancellation for non-payment of premium which shall be ten (10) days. Contractor shall supply certificates of insurance evidencing the required coverage and shall furnish renewal certificates thirty (30) days prior to the renewal date. Failure of the City to request certificates does not relieve the Contractor from the obligation to maintain the required insurance.

10. **LIABILITY:** The Bidder shall defend, indemnify, and save harmless the City and its officers and agents from all claims, demands, payments, suits, actions, recoveries and judgments of every description, whether or not well founded by law, brought or recovered against it, by reason of any act or omission of said Bidder(s), their agents, subcontractors or employees, in the execution of the contract, or for the use of any patented inventions by said Bidder. A sum sufficient to cover aforesaid claims, including attorneys' fees, may be retained by the City from monies due or to become due to the

Bidder under contract, until such claims shall have been discharged.

11. **ROYALTIES AND/OR LICENSE FEES:** The Bidder shall pay all royalties and license fees. The Bidder herein agrees to assume and save the City, its officers and agents harmless from liability of any kind or nature whatsoever, arising out of the use by the City, its officers and agents of any item, appliance, apparatus or mechanism, material or service which may be furnished or installed by the Bidder under the terms of this contract, including patent or copyright infringement, and to defend the City from any and all such liabilities whether or not such claims are well founded by law.

12. **ASSIGNMENT OF CONTRACT:** The Bidder who is awarded a contract shall not assign, transfer, convey, sublet or otherwise dispose of said contract, or right, title or interest in or to the same, or any part thereof, without previous consent in writing from the City Manager, endorsed on or attached to the contract.

13. **CANCELLATION:** Should the material(s) supplied or delivered to the City under this contract fail at any time to meet the Specifications required by the contract, then in such event, the City may cancel this contract upon written notice to the Bidder.

14. **CONTROL OF WORK:** The City Manager, or his designated agent, will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the plans and Specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor, and as to compensation.

15. **CLAIMS FOR ADJUSTMENT AND DISPUTES:** If, in any case, the Contractor deems that additional compensation is due for work or material not clearly covered in the contract or not ordered by the City Manager as extra work, as defined herein, the Contractor shall notify the City Manager in writing of their intention to make claim for such additional compensation before they begin the work on which the claim is based. If such notification is not given and the City Manager is not afforded proper facilities by the Contractor for keeping strict account of actual costs as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor, and the fact that the City Manager has kept account of the cost aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim. If the claim, after consideration by the City Manager, is found to be just, it will be paid as extra work in the amount as approved by the City Manager.

16. **DURATION OF CONTRACT:** The duration of the contract shall be for the period stated in the Specifications, and shall include all material, equipment and/or services ordered or delivered during the period. All prices quoted shall be for a definite fixed period unless otherwise noted in the Specifications.

17. PURCHASES: After a contract has been signed, it shall only become operative upon delivery to the Bidder a duly signed purchase order. The City shall only be obligated under the contract to the extent of such purchase order. The City shall not become liable for any claims in the event that the total quantity of material ordered or services performed under the contract should prove to be greater or less than the estimated amount in the Specifications.

18. DELIVERY: The Bidder agrees to make deliveries of supplies and materials within a reasonable period from the time purchase orders are received, which reasonable time is estimated to be thirty (30) days.

If deliveries are not made within such period, then the City may purchase such items in the open market; and if the prices paid by the City shall be greater than the contract price, the Bidder agrees to reimburse the City for any loss or losses that the City may thereby sustain.

Delivery time for vehicles and equipment may be extended beyond thirty (30) days, provided the Bidder has noted the delivery time in the appropriate space on the Proposal-Contract Form.

19. PAYMENT OF INVOICES: Invoices will be due and payable within thirty (30) days of receipt of the invoice by the City. All invoices should be mailed to the attention of the Accounts Payable Department. Payments may be made on a basis of estimated partial completion of work or delivery, and the City may withhold a percentage of each partial payment until completion of the contract. The City may withhold a percentage of the final estimate for a specified period as a guarantee. Such a procedure for partial payments must be provided for in the Specifications.

20. CONTRACT BOND: The successful Bidder will be required to furnish the approved bond for the faithful performance of the contract in the amount of one hundred percent (100%) of the contract price. Such bond shall be that of an approved surety company or personal bond upon which the sureties are persons not interested in the contract, or, if interested, collateral security shall be furnished, all of which is to be to the satisfaction of the Law Director, including sureties.

In lieu of a performance bond the City may elect to hold the Proposal Deposit Check, submitted with the proposal, until the contract has been fulfilled. **Any deviation from the required one hundred percent (100%) figure will be noted in the Specifications.**

21. GENERAL: Contractors shall furnish all labor, equipment, materials, services and supplies necessary to complete the proposed work. All work shall be performed according to all standards of good workmanship complete in every detail. Contractors shall coordinate their work with the work of others and, upon completion, remove tools, equipment, waste and debris and leave the site in "broom-clean" condition. Contractors shall warrant all equipment, materials, services and supplies with the normal and usual warranties,

including, where applicable, warranties of merchantability and fitness for a particular purpose.

22. WAIVERABILITY: The City of Mentor reserves the right to accept any part of any proposal and reject all or parts of any and all proposals, and waive any informalities in the bidding procedure.

23. PREVAILING WAGE: Contractors must comply with ORC Chapter 4115 when applicable. It is the Contractor's responsibility to contact the City's Prevailing Wage Coordinator to determine requirements.

24. TAXES: Contractor shall pay and/or withhold all sales, consumer, use, employment and other taxes (including the City of Mentor 2% income tax) paid or withheld by Contractor in accordance with the Laws and Regulations of the United States, State of Ohio and City of Mentor which are applicable during the performance of the work.

QUESTIONS: Call the Finance Department at (440) 974-5776.

III. BUSINESS ENTITY RESOLUTION

_____, of _____
(Name of Officer) (Name of Business Entity)

an _____ Business Entity hereby certifies that the following is a true
(State where incorporated/organized if applicable)

and correct copy of a resolution duly adopted by the Board of Directors of _____,
(Business Entity Name)

on _____, _____, to wit:
(Month, Day) (Year)

“Resolved, that _____* of this Business Entity, namely
(Name of Officer)

_____, be and he/she hereby is authorized and directed to enter into any and all
(Title of Officer)

contracts, bid guaranty and performance bonds with **THE CITY OF MENTOR, OHIO**, for the purpose of

furnishing labor and/or materials as to _____
(Title of Bid)

at such price and upon such terms and conditions, including any amendments or modifications thereto, as

said _____ in his/her sole discretion shall deem best,
(Title of Officer)

and that said actions shall be binding upon the Business Entity.

“Resolved, further, that said _____* be, and he/she further is
(Name of Officer)

hereby authorized and directed to execute and deliver unto said **CITY OF MENTOR, OHIO** other
instruments which in his/her discretion he/she shall deem necessary to carry out the forgoing resolution.”

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Business
Entity (if applicable) at _____ this _____ day of _____,
and I further certify that said resolution is still in force and effect.

SECRETARY

SEAL

CR-1

*Name must agree with signature on page *Bid Subject to Acceptance as Contract*.

IV. BID SUBJECT TO ACCEPTANCE AS CONTRACT

Intentionally left blank, page available only by contacting Veronica Fetsko, 440-974-5776 or fetsko@cityofmentor.com.

V. SPECIFICATIONS FOR THE PURCHASE SELF-CONTAINED BREATHING APPARATUS TO MEET THE STANDARDS SET BY NATIONAL FIRE PROTECTION ASSOCIATION'S 2013 EDITION OF NFPA-1981 STANDARD ON OPEN-CIRCUIT SELF-CONTAINED BREATHING APPARATUS – CONTRACT A

The bid documents contain bid forms for two (2) separate contracts or a combined bid contract. The bidder may bid just one of the separate contracts, combined contract, any combination of contracts, or all three contracts (separate and combined).

The Mentor Fire Department and Perry Joint Fire District reserve the right to award their purchase(s) from separate vendors for Contract A.

A. GENERAL REQUIREMENTS – CONTRACT A

The Mentor Fire Department and Perry Joint Fire District are seeking bids for the purchases 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.

1. BIDS

- a. Bids must be submitted on the forms included in this document, and must be properly signed in the spaces indicated. Your bid must be submitted in a sealed envelope plainly marked “Mentor Fire Department SCBA Bid”, City of Mentor Finance Department; Contract A, Contract B or Combined; Attention: Veronica Fetsko. Bids submitted otherwise will not be acceptable.
- b. The City of Mentor 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 City, Township and Fire District. All equipment or services listed is intended for a particular use by the City, Township and Fire District in which it is to be utilized and must meet the requirements of those particular division(s). 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 City, Concord Township and Perry Fire District reserve the right to accept any item in the bid and to award items to one single provider or to award the bids in the best interest of their respective communities.

- c. Failure to respond to any requirements outlined in this RFB, or failure to enclose copies of the required documents, may disqualify the bid. 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.
 - d. Contract(s) will be awarded after an evaluation of all bids have been made, and in the interest of suitability to the City's, Township's and District's needs and/or economy, equipment, furnishings or service other than the cheapest in price may be selected.
- 2. INTENT:** The intent of these specifications is to establish minimum standards and guidelines for the purchase of Self Contained Breathing Apparatus'. O.S.H.A.: Bidder shall comply with the provisions of the Occupational Safety and Health Act (OSHA) and Standards and Regulations issued thereunder and certify that all items conform to and comply with said standards and regulations.
- 3. PROPOSAL (BID) BOND:** Section 3G of the Instructions to Bidders is hereby amended. A certified check, a cashier's check or money order in the amount of \$500.00 must accompany each proposal.
- 4. CONTRACT (PERFORMANCE) BOND:** Section 20 of the Instructions to Bidders is hereby amended. The successful bidder will be required to furnish a certified check or bond in the amount of \$500.00. The City may elect to hold the bid deposit check as the contract bond.
- 5. DELIVERY:** Price bid must include all charges, including handling and deliver. Please indicate on the Proposal-Contract form delivery time from receipt of the City of Mentor Purchase Order (FOB Mentor, Ohio).
- 6. WARRANTY INFORMATION**
- a. 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 Contracts and 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.
 - b. Additionally, the vendor shall also provide specific information regarding where said maintenance can and/or should be performed (i.e., within individual Fire Departments, manufacturer's service center, etc.)

7. **COST OF OWNERSHIP:** 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."
8. **CONTACT:** Questions regarding CONTRACT A specifications should be directed to:

Perry Fire Chief James McDonald
E-Mail: jmcdonald@perryfire.info
Phone: (440) 259-2880

B. MINIMUM SPECIFICATIONS OF THE SELF-CONTAINED BREATHING APPARATUS

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 the City of Mentor Fire Department, Concord Township Fire Department and Perry Joint Fire District. 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.

C. EXCEPTIONS TO SPECIFICATIONS – CONTRACT A

1. These specifications are based upon design and performance criteria which have been researched and analyzed by the departments. Therefore, major exceptions to these specifications may not be accepted.
2. To the right side of each section for a particular specification, the bidder shall state "YES", "NO" or "EXCEPTION" indicating the exact compliance with the specification. If "EXCEPTION" is selected, indicate reason for same.
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.
4. The Mentor Fire Department and Perry Joint Fire District may choose to reject bids based on exceptions. Any exceptions that make the SCBA non-compliant with the National Fire Protection Association's 2013 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus will result in the bid being rejected.

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C5	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 minute service life and compliant with all requirements of the National Fire Protection Association's 2013 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C5.1	Units shall be equipped with integrated PASS device must meet requirements of NFPA 1982, 2013 edition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C5.2	Units equipped with accountability system must meet minimum requirements for FCC part 15 and part 90.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6	Facepiece			
C6.1	Facepiece shall have removable inhalation check valve to prevent exhaled air from entering and contaminating the second stage regulator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.2	Facepiece shall have an open port to provide miniscule breathing resistance when regulator is not attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.3	Facepiece shall not contain electronic components.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.4	Facepiece shall provide means to display to user with visual indicators for Heads-Up Display (HUD).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.5	Facepiece shall have icon for HUD system status indicators.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.6	Facepiece shall have regulator attachment that does not bear any weight on lens.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.7	Facepiece shall have effective field of view of 86% and overlapping field of view of 122% without attached component.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.8	Facepiece shall be available in three sizes in Hycar Rubber (small, medium, large).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.9	Facepiece shall have a nose cup comprised of silicone rubber and available in three sizes (small, medium, large).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.10	Facepiece shall have head harness options constructed of flame/heat resistant assembly:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.11	Facepiece shall have Kevlar 5-point adjustable Head Harness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.12	Facepiece shall have universal lens that can be used with all three Facepiece sizes, shall be comprised of non-shatter type material and shall be field-replaceable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.13	Lens shall be hard-coated on outside and anti-fog coated on inside.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.14	Facepiece shall have removable speaking diaphragm with aluminum-coated membrane, suitably protected and located centrally on Facepiece for optimal voice projection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.15	Facepiece shall have exhalation valve that is to be serviceable without special tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.16	Facepiece shall be capable of water submersion for cleaning and disinfection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6.17	Facepiece provides optional RFID chip for asset and maintenance tracking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7	Mask-Mounted Regulator			
C7.1	The second stage regulator shall be a Push-to-Connect style.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C7.2	When doffing regulator, regulator disengagement shall simultaneously stop air flow and release regulator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.3	Regulator shall house electronic module that functions as microphone and HUD system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.4	Regulator shall be equipped with variable flow bypass.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.5	Regulator shall not have exposed wiring in order to prevent snags and increase product durability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.6	Regulator shall have a hard cover.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.7	Regulator shall have fewer than 35 parts that are easily replaceable without special tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.8	Regulator shall have continuous hose from pressure reducer regulator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.9	Regulator must be equipped with positive protection Tetraplex Shield membrane that covers diaphragm, preventing permeation of CBRN agents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C7.10	Regulator shall have optional RFID chip for asset and maintenance tracking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.1	Heads-Up Display (HUD)			
C8.2	Heads-Up Display (HUD) System shall be integrated within regulator, eliminating snag hazards and increase product durability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.3	HUD System shall separate pressure indicators from status indicators: Left: status indicators. Right: pressure indicators.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.4	HUD system shall provide user with remaining cylinder air volume, available in four increments through series of four colored LEDs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.5	Four green lights - 76 to 100% cylinder volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.6	Three green lights - 51 to 75% cylinder volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.7	Two flashing amber lights - 34 to 50% cylinder volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.8	One flashing red light - 0 to 33% cylinder volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.9	HUD status indicators shall be icon-based and display battery life warning, PASS alarms, EVACUATE indicator, and secondary alarm indicator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.10	HUD shall incorporate photoelectric sensor that senses ambient light conditions, automatically adjusting display to one of the multiple pre-programmed light intensities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.11	Buddy lights shall be visible from outside of firefighter's Facepiece.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.12	HUD system shall allow user to select from four modes of operation:			
C8.13	Continuous pressure mode that shall always have pressure LEDs on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.14	Intermittent pressure mode that shall turn on first three increments when reached for 20 seconds.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.15	Oscillating pressure mode that shall brighten and dim LEDs every 20 seconds.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C8.16	Mixed pressure mode that shall turn on first two increments when reached for 20 seconds and last two increments are in continuous mode.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C8.17	HUD shall be field-removable and replaceable without use of special tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9 Universal Air Connection (UAC)				
System shall be capable of:				
C9.1	Refill within immediately dangerous to life or health (IDLH) atmospheres.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9.2	Transfiling between two SCBA wearers (connection allows for donation and receipt of air), providing emergency breathing system (EBS) while maintaining NIOSH approvals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9.3	Quickly refilling (approximately one-minute duration) SCBA cylinder from mobile compressor, cascade system or RIT pack.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9.4	Extending wearer's air supply over longer duration when remote cascade system or other compressed gas source is located within remote area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9.5	Primary UAC shall be illuminated when supply pressure reaches Low Pressure Warning Alarm or can be configured to optional medium pressure warning alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C9.6	SCBA shall have pouch equipped with a 3 foot quick-fill hose.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10 Pressure Reducer (First-Stage Regulator) with Primary Low Pressure Warning Device				
C10.1	Pressure reducer shall incorporate downstream valve to ensure fail-safe design when in open position.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.2	Pressure reducer shall incorporate bell alarm mechanism.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.3	Bell alarm mechanism shall be an air-actuated, continuously ringing audible warning alarm, automatically operating when supply cylinder air pressure reaches approximately 33% of rated service life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.4	Bell alarm mechanism shall cover multiple levels of frequencies to cover all hearing levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.5	Bell alarm mechanism shall be user-accessible while wearing SCBA.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.6	Pressure reducer reduces cylinder pressure to outlet pressure not to exceed 115 psi; outlet pressure must be adjustable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.7	Pressure reducer shall have flow capacity of 700 liters per minute at full pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.8	Pressure reducer cylinder connection shall have a CGA threaded connection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.9	Quick-connect connection shall not be removable from cylinder while under pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.10	Pressure reducer shall have a CGA threaded remote connection for cylinder .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.11	Pressure reducer shall be capable of converting from threaded to quick connect or vice versa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.12	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.13	Pressure reducer shall be sealed system that does not allow moisture to enter valve components.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.14	Pressure reducer shall have no more than 42 individual regulator replacement parts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C10.15	Pressure reducer shall not require special tools for disassembly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C10.16	Pressure reducer shall have two accessory ports, one medium pressure and one high pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11	Cylinders			
C11.1	Cylinders with 4500 psig operating pressure must be available in 45 minute duration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.2	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.3	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 axi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.4	Cylinder valve shall be available with a CGA 347 thread and a "Quick-Connect" adaptor connection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.5	Cylinder valve shall incorporate flow control insert to limit air flow over hand wheel's first half-rotation, minimizing propulsion thrust in event that cylinder is mishandled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.6	Cylinder valve shall incorporate CGA 347 thread that can be converted to quick connect cylinder without special tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.7	Cylinder shall have bracket and boot that can be user- installed and provide positioning and added security of cylinder to back plate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C11.8	Delivered cylinders more than 90 days past their manufacture date will not be accepted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12	PASS Device			
C12.1	PASS device shall contain the power, control modules and have a central battery power system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.2	Power module shall provide power to all electronic SCBA components from the battery module and act as central power system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.3	Power module shall act as central command center, distributing all information and data among electronic components.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.4	Battery module shall be powered by six C-cell batteries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.5	Expected battery service life batteries shall be 3 to 5 months on average with telemetry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.6	PASS device shall be designed for battery level check and removal of batteries while SCBA remains in jump seat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.7	Power module shall be capable of illuminating UAC fitting when supply cylinder reaches 33% of rated service time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.8	Control module shall have analog and digital display for added redundancy. Analog gauge must be positioned above digital display as viewed by user.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.9	Control module shall be equipped with full color graphical display. Display shall be reprogrammable and capable of future integrations. The display's background color shall coordinate with HUD pressure status.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C12.10	Control module shall automatically provide information to user when placed in upright position. Device can be manually activated by pressuring reset button.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.11	PASS device shall use single line to connect power and control module.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.12	Control module shall have two reset buttons that perform same function no matter which button is pressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.13	Control module shall have alarm button to activate full alarm and is to be illuminated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.14	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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.15	Medium pressure alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.16	Pressure drop alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.17	Primary temperature alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.18	Secondary temperature alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.19	Audible low pressure alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.19	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.20	PASS device shall have colored buddy lights: green (pressure above 50% and no alarms), yellow (pressure between 34 and 50%) or red (below 34% or alarms are active).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.21	Power module shall be equipped with dual sound emitters; sound emitters shall perform at minimum 100 dBa in room temperature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.22	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.23	PASS device shall be capable of storing periodic logs. Periodic logs must indicate cylinder pressure for each SCBA pressurization stored at 15-second intervals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.24	PASS device's event and periodic logs shall provide ability to download to personal computer for maintenance records or for use in incident investigations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.25	PASS device shall be immune to radio frequency interference (RFI) and must function properly in close proximity of fire service hand-held radios.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.26	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.27	PASS device shall employ gasket perimeter seal to provide highest protection level against water ingress, while providing ability to upgrade or repair electronics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.28	PASS device shall be capable of electronically storing user's name into memory via ID tag.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C12.29	PASS device shall be removable with no more than two screws.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.30	Control module shall have service mode that provides ability to see number of hours used, connect to PC and firmware versions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.31	Control module shall incorporate rubber boot for added protection and is to be replaceable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.32	Power and Control Modules shall have optional RFID chip for asset and maintenance tracking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.33	The PASS device shall be capable of transmitting the following information to a remote base station receiving unit for accountability purposes via telemetry:.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C12.34	Firefighter name, truck or team assignment, cylinder pressure, service time remaining, PASS alarms (motion or manual) thermal alarms, battery status, radio connectivity and evacuation acknowledgement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13	Speaker Module			
C13.1	Speaker module shall provide amplified speech that removes inhalation breath noise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.2	Speaker module shall provide at minimum, 70 dBa output.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.3	Speaker module shall turn on and off with PASS device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.4	Speaker module shall be powered by central power system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.5	Speaker module shall be capable of passing NFPA heat and immersion leakage test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.6	Speaker module shall be positioned on chest and attached to shoulder straps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.7	Speaker module shall be capable of being mounted on either shoulder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.8	Speaker module shall easily be attached and removed without special tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.9	Speaker module shall have light to indicate that device is powered on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C13.10	Speaker module shall have on/off button to allow user to manually power off as needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14	Carrier and Harness			
C14.1	Shoulder harness shall have separate left and right pads for easier and less costly replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.2	Shoulder harness shall have retro-reflective markings for better visibility within low light conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.3	Shoulder harness shall have localized frictions pads on shoulders to prevent slippage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.4	Shoulder harness shall have an adjustable chest strap.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.5	Harness design shall have Kevlar webbing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.6	Shoulder harness shall have accessory attachment point available for Facepiece or pouch and can be moved from left to right shoulder strap or vice versa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTRACT A - SPECIFICATIONS COMPLIANCE CHECKLIST		Meets Specifications		
		Yes	No	Exception
C14.7	Shoulder harness shall differentiate pad inside from pad outside by color; pad inside is grey and outside is black.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.8	Waist pad shall be adjustable swiveling – standard pad attached to metal bracket that has three positions and automatically centers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.9	Adjustable swiveling waist pad shall be one-handed operation and can be performed while on user's back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.10	Back plate shall have two side handles and one top handle that are accessible with gloved hand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.11	Back plate side handles shall be capable of 500 lbs. of force.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.12	Back plate top handle shall be capable of 1000 lbs. of force.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.13	Back plate cylinder band shall be metal and easily adjust to accommodate different cylinder sizes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.14	Waist pad shall be of rigid construction to allow for easy donning and support.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.15	Waist straps shall be double-pull forward design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.16	Harness design shall have regulator keeper for storage that can be attached to waist strap or chest strap.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C14.17	Regulator keeper shall allow regulator to be connected at any angle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Meets Specifications		
		Yes	No	Exception
C15	OPTION A			
C15.1	Accountability system to include base station, tags, tag reader/writer and software.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C16	OPTION B			
C16.1	Additional Facepieces as described in specifications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C16.2	Spectacle kits for Facepieces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C17	OPTION C			
C17.1	Factory labeling of SCBA backpack/harness to identify ownership and to include Mentor Fire Department & Perry inventory numbering system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C17.2	Factory labeling of cylinders with a Mentor Fire Department or Perry logo as an integral part of the cylinder wrap, add on or glued on stickers are not acceptable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.18	OPTION D			
C18.1	Emergency Air Supply System (RIT Pack). The air source shall consist of the following components:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.2	A carrying bag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.3	External pressure gauge (optional)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.4	An audible low-pressure alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.5	A Universal Air Connection (UAC) high- pressure emergency airline that will function with any manufacturers NFPA 1981, 2002 compliant or newer self-contained breathing apparatus;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.6	A low-pressure airline hose assembly with a low- pressure manifold that has a male and female quick disconnect and additional ports to allow the use of other SCBA manufacturer's low-pressure fittings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C18.7	4500 psig, 60 minute rated, Carbon-Wrapped Cylinder for each (RIT Pack)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C19	OPTION E			
C19.1	Supplied Air Respirator (SAR) harness assemblies and cylinders. These shall consist of a Kevlar adjustable waist strap and padded adjustable shoulder strap. The unit shall be equipped with a 10-minute escape cylinder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C20	OPTION F			
C20.1	Air Purifying Respirator adaptor with a single or twin cartridges to be used with the SCBA Facepiece	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.21	OPTION G			
C21.1	100 foot sections of supplied breathing air lines with fittings that are compatible SAR units.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.22	OPTION H			
C22.1	Manufacturer Porta Count facepiece adapter required for wearer fit testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C22.2	Manufacturer Posi Chek software and required equipment to perform annual and bench testing of the SCBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Meets Specifications		
		Yes	No	Exception
C22	TRAINING AND FIT TESTING			
C22.1	The successful bidder shall provide, at no cost to the department, a technician level maintenance training class up to six (6) members of the department. A description of how this training will be performed shall be included in the proposal. Required tools for performing repairs, maintenance, and flow testing, and PC interface for PASS alarm (with software) shall be provided at this training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C22.2	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C22.3	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 Facepiece 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.23	SPARE PARTS			
C23.1	At no cost to Mentor Fire or Perry Joint Fire Department the manufacturer shall provide to the department enough parts and maintenance supplies to repair the SCBA's so they can be placed back in service while waiting on warranty parts to be delivered. This should include, as a minimum, the following components:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.2	2 – Complete second stage regulators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.3	2 – Complete control modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.4	2 – Complete first stage pressure reducer and low air alarms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.5	2 – Complete sets of straps (shoulder, chest and waist belts) and lumbar pads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.6	2 – PASS modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.7	2 – Speaker modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.8	O-rings and seals for second stage regulator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.9	2 – UAC fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C23.10	The manufacturer shall provide a complete parts list with prices for the SCBA, Facepiece and Cylinder. This shall be included with the bid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.24	PRICING			
C24.1	Pricing shall also be extended to all City of Mentor, Perry JFD public safety agencies to include police and fire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C24.2	Delivery time for required equipment and quantities shall be within 120 days of the date the order is placed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C24.3	The vendor shall provide a guaranteed purchase price on the items and quantities for a period of twelve (12) months.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. SPECIFICATIONS FOR THE PURCHASE SELF-CONTAINED BREATHING APPARATUS TO MEET THE STANDARDS SET BY NATIONAL FIRE PROTECTION ASSOCIATION'S 2013 EDITION OF NFPA-1981 STANDARD ON OPEN-CIRCUIT SELF-CONTAINED BREATHING APPARATUS – CONTRACT B

The bid documents contain bid forms for two (2) separate contracts or a combined bid contract. The bidder may bid just one of the separate contracts, combined contract, any combination of contracts, or all three contracts (separate and combined).

Concord Township Fire Department reserves the right to award their purchase(s) from separate vendors for Contract B.

A. GENERAL REQUIREMENTS – CONTRACT B

The Concord Township Fire Department is seeking bids for the purchases of self-contained breathing apparatus (SCBA) and related components. The SCBA and related components shall meet the minimum specifications listed below. All bids must conform to these specifications and be presented on the forms provided for that purpose.

1. BIDS

- a. Bids must be submitted on the forms included in this document, and must be properly signed in the spaces indicated. Two (2) complete sets of your bid must be submitted in a sealed envelope plainly marked “Mentor Fire Department SCBA Bid”, City of Mentor Finance Department, Contract A, Contract B or Combined; Attention: Veronica Fetsko. Bids submitted otherwise will not be acceptable.
- b. The City of Mentor 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 City, Township and Fire District. All equipment or services listed is intended for a particular use by the City, Township and Fire District in which it is to be utilized and must meet the requirements of those particular division(s). 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 City, Concord Township and Perry Fire District reserve the right to accept any item in the bid and to award items to one single provider or to award the bids in the best interest of their respective communities.

- c. Failure to respond to any requirements outlined in this RFB, or failure to enclose copies of the required documents, may disqualify the bid. 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.
 - d. Contract(s) will be awarded after an evaluation of all bids have been made, and in the interest of suitability to the City's, Township's and District's needs and/or economy, equipment, furnishings or service other than the cheapest in price may be selected.
2. **PROPOSAL (BID) BOND:** Section 3G of the Instructions to Bidders is hereby amended. A certified check, a cashier's check or money order in the amount of \$500.00 must accompany each proposal.
 3. **CONTRACT (PERFORMANCE) BOND:** Section 20 of the Instructions to Bidders is hereby amended. The successful bidder will be required to furnish a certified check or bond in the amount of \$500.00. The City may elect to hold the bid deposit check as the contract bond.
 4. **DELIVERY:** Price bid must include all charges, including handling and deliver. Please indicate on the Proposal-Contract form delivery time from receipt of the City of Mentor Purchase Order (FOB Mentor, Ohio).
 5. **COST OF OWNERSHIP:** 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."
 6. **CONTACT:** Questions regarding CONTRACT B specifications should be directed to:

Fire Chief Matt Sabo
E-Mail: firechief@concordtwp.com
Phone: 440-354-7503

7. **INTENT:** The intent of these specifications is to establish minimum standards and guidelines for the purchase of Open Circuit Self Contained Breathing Apparatus'. O.S.H.A.: Bidder shall comply with the provisions of the Occupational Safety and Health Act (OSHA) and Standards and Regulations issued thereunder and certify that all items conform to and comply with said standards and regulations. The SCBA shall consist of the following major sub-assemblies:
 - a. full face-piece assembly;
 - b. removable face-piece mounted, positive pressure breathing regulator with air saver switch;

- c. automatic dual path redundant pressure reducing regulator;
- d. end-of-service time indicators;
- e. harness and backframe assembly for supporting the equipment on the body of the wearer;
- f. shoulder strap mounted, remote gauge indicating cylinder pressure;
- g. rapid intervention crew/universal air connection (RIC/UAC);
and
- h. cylinder and valve assembly for storing breathing air under pressure.

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. Failure to do so will automatically disqualify the bidder.

The successful bidder must be a sales distributor, authorized by the manufacturer, to sell the equipment specified herein.

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

8. APPROVALS

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, 2013 Edition, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services. The SCBA shall be compliant to the NFPA 1982, 2013 Edition, Standard on Personal Alert Safety Systems. 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. MINIMUM SPECIFICATIONS OF THE SELF-CONTAINED BREATHING APPARATUS – CONTRACT B

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 the City of Mentor Fire Department, Concord Township Fire Department and Perry Joint Fire District.

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.

1. FACE PIECE

The face piece 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 face-piece 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 face-piece. The full face-piece assembly shall fit persons of varying facial shapes and sizes with minimal visual interference. The full face piece assembly shall be available in three sizes marked "S" for Small, "M" for Medium, and "L" for Large. The face-piece sizes shall be easily identifiable through a color-coding scheme.

The face piece assembly, including head harness, shall be latex free. The face-piece series shall have a faceséal that is secured to the lens by a U-shaped channel frame that is retained to the lens using two fasteners. The faceséal shall be a reverse reflex design for enhanced fit and comfort. The face-piece shall contain inhalation valves that are readily visible to enable quick visual inspection. The lens shall be a single, replaceable, modified cone configuration constructed of a non-shatter type polycarbonate material.

In accordance with NIOSH 42 CFR part 84, the face-piece meets 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 internal anti-fog coating to reduce fogging of the lens. Multi-directional voice emitters shall be mounted on both sides of the face-piece and ducted directly to an integral silicone nose cup to enhance voice transmission. The face piece assembly shall be able to incorporate multiple Scott (or like) electronic communications options (amplification, radio interface, wireless, etc.) without affecting NIOSH approvals or NFPA/CBRN approvals where applicable. The face piece shall enable the transmission of communications bracket on either the right or left side.

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 para-aramid material for fire, first responder and CBRN applications.

2. MAST-MOUNTED REGULATOR

The face-piece-mounted positive pressure-breathing regulator shall supply and maintain air to the face-piece 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 breathing regulator shall have attached a low pressure hose which shall be threaded through the left shoulder strap to couple to the pressure reducing regulator mounted on the backframe. The 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 quick connect coupling shall be easily connected and disconnected by trained individuals with a gloved hand and/or in low light conditions. The quick connect coupling shall not allow the air hose to be connected without the HUD Connection. The 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 face-piece mounted regulator.

The regulator shall connect to the face-piece by way of a quarter (1/4) turn coupling. The user shall hear an audible sound when the regulator is attached correctly to the face-piece. The regulator shall be equipped with a doughnut shaped gasket which provides a seal against the mating surface of the face-piece. 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 arranged to direct the incoming air over the inner surface of the face-piece 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. It 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.

3. PRESSURE REDUCER WITH CGA CYLINDER CONNECTION

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 face-piece-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. 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 pressure.

4. END-OF-SERVICE TIME INDICATOR (EOSTI)

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 face-piece. The primary EOSTI shall be located in the Face-piece-Mounted Positive Pressure Regulator. This alarm device shall indicate either low cylinder pressure (33% +5%, -0%) or primary first stage regulator failure.

The HUD shall serve as the secondary EOSTI indicator. 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 Face-piece Mounted Positive Pressure Regulator. It shall display cylinder pressure in increments of 100%, 75%, 50% and 33%. The display shall not have a numerical representation of bottle pressure. 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 (1) time per second. At one-third bottle pressure, one "red" LED shall be illuminated and flash at a rate not to exceed ten (10) times per second. The HUD shall have a low battery indication that is distinct and distinguishable from the bottle pressure indications.

5. HARNESS AND BACKFRAME ASSEMBLY

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. The backframe shall be a solid, one-piece black powder-coated aluminum frame with a shroud made of glass filled nylon that is heat and impact resistant, that is contoured to follow the shape of the user's back. The backframe shall include a mounting for the pressure reducer. 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, 60, or 75 minute cylinders.

The harness assembly shall consist of a one size black para-aramid strap with a yellow stripe. This harness shall include box-stitched construction with no screws or bolts. The harness assembly shall incorporate parachute-type, quick-release buckles and shall include shoulder and hip pads. 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 back plate by way of a single, articulating metal bracket.

The backframe shall include accommodation and mounting spaces suitable for installation of a distress alarm integrated with the SCBA. These mounting spaces shall permit installation of an alarm sensor module in an area between the cylinder hanger locking mechanism and the backframe.

6. RAPID INTERVENTION CONNECTION

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 four (4) inches of the tip of the CGA threads of the cylinder valve. The RIC/UAC shall consist of a connection for attaching a high-pressure air source and a self-resetting relief valve allowing a higher pressure than that of the SCBA to be attached to the SCBA. The RIC/UAC shall have a check valve to prevent the loss of air when the high-pressure air source has been disconnected.

7. CYLINDER

The cylinder threads shall be straight with an O-ring or quad-ring gasket type seal. 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. It shall contain an upper and lower seat such that the pressure will seal the stem on the upper seat, thus preventing leakage past the stem. No adjustment shall be necessary during the life of the valve. 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.

Each cylinder valve shall consist of the following:

- 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";
- b. Upstream connected frangible disc safety relief device;
- c. Dual reading pressure gauge indicating cylinder pressure at all times;
- d. Elastomeric bumper;
- e. Angled outlet. Each cylinder and valve assembly shall be equipped with a hanger bracket for positive locking attachment of the assembly to the backframe. The SCBA shall maintain all NIOSH and NFPA standards with any of the following types of cylinders listed as provided by the SCBA manufacturer.

8. CARBON-WRAPPED

The cylinder shall be manufactured in accordance with DOT specifications and meet the Transport Canada requirements with working pressures 4500 psig. 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. The cylinder shall be 45-minute duration based on the NIOSH breathing rate of 40 liters per minute (lpm).

9. PERSONAL ALERT SAFETY SYSTEM

The PASS device shall be compliant to 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 system shall feature a "hands-free" re-set capability that 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 six "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 a 2.4 GHz integrated locator system. The PASS System shall be upgradeable to include a 2.4 GHz integrated SCBA air/PASS (telemetry) management system. The PASS device shall contain two components: a Console and a Sensor Module.

10. CONSOLE

The console shall be located on the user's right shoulder strap. 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:

- a. Pre-Alarm: alternating red flashing LED's;
- b. Full Alarm: dual flashing red LED's and a flashing PASS icon;
- c. Low Battery: Red flashing LED's;
- d. Normal System Operation: flashing green LED. The console shall contain a photo sensing diode to dim and brighten the BUD as the environment changes. The console shall contain push buttons for user interface. The push buttons shall be designed to minimize accidental activation. Yellow color-coded push button shall permit system reset. Red color-coded push button shall permit manual activation of the full alarm mode.

11. 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 when:

- a. the device is in pre-alert;
- b. the device is in full-alert; and
- c. the SCBA has reached one-third bottle pressure.

12. WARRANTY INFORMATION

- a. 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 Contracts and 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.

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

13. EMERGENCY BREATHING SUPPORT SYSTEM "Buddy Breathing"

The Dual Emergency Breathing Support System (EBSS) 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:

- a. manifold with one of each of a female socket and male plug, both of which have check valves;
- b. 40" minimum low-pressure hose;
- b. pouch for storing the hose; and
- c. 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 black. 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.

14. ELECTRONIC VOICE AMPLIFIER WITH BRACKET

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 face piece by means of a bracket that is secured around the voice emitter of the face piece.

The device shall:

- a. contain a bayonet-style mounting fixture that enables the user to insert the voice amplifier into the bracket and secure it with a quarter-tum counter-clockwise when it shall lock into place;
- b. contain a thumb latch to permit removal when it is pressed and the device *is* rotated a quarter-tum clockwise. The thumb latch shall contain a captive screw that enables the user to prevent removal.
- c. weigh no more than 7 ounces 225 (grams) and its size shall not exceed

the following dimensions: Length: 3.50 inches; (8.89 em); width: 2.0 inches (5.08 em); depth (extension from voice emitter): 1.75 inches (4.44 em);

- d. have the ability to be upgraded to a voice amplifier, radio interface, and stand lone radio communication system that all reside in a single housing with a single power source;
- e. 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.
- f. 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.
- g. provide audible tones to indicate that the system has been energize, de-energized and to provide a low battery indication.
- h. be powered by three 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 sealed compartment secured in place by means of a fastener. The door of the battery compartment shall be user-replaceable.

- i. 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.

- j. not have feedback for longer than 1 second when worn on a level A haz-mat suit.
- k. be capable providing a minimum STI score of 0.65, even though NFPA minimum requirement is 0.60. The voice amplifier, when attached to a face piece, shall be able to withstand a 30 minute tumble test. A single voice amplifier shall be able to withstand eight, 6' drops, once on each side and two edges. The voice amplifier shall be able to withstand a 30 minute tumble test not attached to the face piece.

C. MINIMUM SPECIFICATIONS – Contract B - Emergency Air-Supply System

The purpose of this bid specification is to establish the minimum requirements for an auxiliary air source to be used by Rapid Intervention Teams.

D. OPERATIONAL REQUIREMENTS

The air source shall consist of the following components: Carrying Bag, External Pressure Gauge; Audible Low-pressure Alarm; Universal Air Connection, RIT Style Face Piece, and Pressure Regulator.

1. **CARRYING BAG** - The carrying bag material shall:

- a. be highly visible orange and resistant to heat and flame;
- b. include reflective striping to increase visibility of the product in low-light conditions;
- c. be equipped with ten (10) d-rings;
- d. be equipped with a highly-durable, low-friction skid plate.

Located on the top of the carrying bag shall be a:

- b. tool pouch;
- c. rope pouch capable of holding 75 feet of 3/8" rope.

The length of the shoulder strap shall be:

- a. adjustable;
- b. equipped with two (2) seat belt buckles;
- c. equipped with two (2) non-locking carabineers.

The carrying bag shall have three flap openings:

- a. high-pressure access;
- b. low-pressure access; and
- c. cylinder access.

The tab of the low-pressure access flap shall be differentiated from the tab of the high-pressure access flap through a tactile grip that can easily be detectable while wearing gloves.

2. EXTERNAL PRESSURE GAUGE

- a. The gauge face shall be luminescent for easier reading in low-light

conditions.

- b. The external pressure gauge shall be equipped with pressure indicator light emitting diodes (LED): (2) green LEDs when cylinder pressure is 100% to 76%; (1) green LED when cylinder pressure is 75% to 51%; (1) amber LED when cylinder pressure is 50% to 26%; and (1) blinking red LED when cylinder pressure is below 25%. An additional orange LED shall be included to indicate low battery alarm.
- c. An LED shall be cast across the gauge face to increase readability in dark environments.
- d. The external pressure gauge shall be powered by two (2) AA batteries.
- e. The external pressure gauge shall be tethered to the carrying bag.

3. AUDIBLE LOW-PRESSURE ALARM

- a. The air-source shall include an audible low-pressure alarm that is pneumatically activated at 25% of cylinder pressure.

4. UNIVERSAL AIR CONNECTION HIGH PRESSURE EMERGENCY AIRLINE (that will function with any manufacturers NFPA, 2002 compliant or newer self-contained breathing apparatus)

- a. The Universal Air Connection (UAC) high-pressure emergency airline assembly shall be five (5) feet in length.
- b. The UAC Adapter assembly shall have a highly visible stripe on the quick-charge coupling.
- c. The quick-charge coupling on the UAC high-pressure emergency airline shall include a rubber protective cap to protect from debris and contaminants.

5. LOW-PRESSURE AIRLINE HOSE ASSEMBLY (with a low-pressure manifold that has a Scott (or like) style male and female quick disconnect and additional ports to allow the use of other SCBA manufacturer's low-pressure fitting)

- a. The low-pressure airline hose assembly shall consist of a pressure reducer, a six (6) foot airline hose, and a low-pressure manifold block.
- b. The low-pressure manifold block shall include a male airline fitting, a female socket assembly and two (2) additional ports to enable the use of

multiple manufacturers' low- pressure quick disconnect fittings.

- c. The low-pressure airline hose shall be able to accommodate an air pressure of 250 psi.
- d. The female socket shall be able to accommodate the "male" end of a low-pressure hose coming off the regulator that is attached to the respirator user's full face piece.
- e. The low-pressure airline hose assembly shall be able to connect to the Scott Dual Emergency Breathing Support System (EBSS) or like.

6. *RIT STYLE FULL FACE PIECE*

- a. The RIT Style shall be designed to increase the visibility of the wearer's face to the rescue team.
- b. The face piece shall have a positioning tab on the head harness and large d-rings on the bottom head harness adjusting straps to ease donning of the face piece on a victim by the rescue team.

7. *PRESSURE REGULATOR*

- a. The pressure regulator shall be able to connect to a RIT Style full face-piece.
- b. The pressure regulator shall include a three (3) foot low-pressure hose.
- c. The pressure regulator shall be equipped with an emergency by-pass knob.

8. *CARBON BOTTLE*

- a. 60 minute, 4500 psig with valve.

VII. CONTRACT A - PROPOSAL-CONTRACT FORM
Mentor Fire and Perry Joint Fire Department

The undersigned hereby proposes to furnish the City of Mentor, Ohio, the following items, in accordance with the specifications and upon the terms and conditions of this proposal, providing this proposal or any part hereof is accepted as a contract by the City of Mentor.

<u>ITEM #</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT PRICE</u>
1.	2013 Edition of NFPA-1981 Compliant SCBA, as specified; Quantity: Mentor-68, Perry - 38	106	\$ _____
2.	SCBA Facepieces, as specified; Quantity: Mentor - 120, Perry - 38	158	\$ _____
3.	4500 PSIG, 45 minute rated, Carbon-Wrapped Cylinder Mentor-136, Perry-76	212	\$ _____

OPTION PRICING

A-1	Accountability base stations and software	3	\$ _____
A-2	Accountability RFID tags	80	\$ _____
A-3	Accountability RFIG tag read/writer	1	\$ _____
B-1	Additional Facepieces, as specified	26	\$ _____
B-2	Spectacle Kits for Facepieces	12	\$ _____
C-1	Factory labeling of SCBA Backpack/Harness	106	\$ _____
C-2	Factory labeling of Cylinders with Fire Department Logo Mentor - 136 Perry - 38	212	\$ _____
D-1	Emergency Air Supply System (RIT Pack)	8	\$ _____
E-1	Supplied Airline Respirators (SAR) with 10 minute escape cyclinder	6	\$ _____
F-1	Air Purifying Respirator (APR) adaptors	50	\$ _____
F-2	Multi-gas/vapor filter cartridges for use with APR adapters	50	\$ _____

VII. CONTRACT A - PROPOSAL-CONTRACT FORM (Continued)
Mentor Fire and Perry Joint Fire Department

The undersigned hereby proposes to furnish the City of Mentor, Ohio, the following items, in accordance with the specifications and upon the terms and conditions of this proposal, providing this proposal or any part hereof is accepted as a contract by the City of Mentor.

<u>ITEM #</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT PRICE</u>
G-1	100 foot sections of supplied breathing air lines with fittings that are compatible SAR units.	6	\$ _____
H-1	Manufacturer Porta Count facepiece adapter for fit testing users	1	\$ _____
H-2	Manufacturer PosiChek softare and required equipment to perform annual and bench testing of SCBA	1	\$ _____

Warranty: _____

Delivery (days after receipt of purchase order): _____

CONDITIONS: The Instructions to Bidders and the Specifications are a part of this contract as effectively as though they preceded the signatures of the parties. This contract is not valid until accepted and signed by the City of Mentor.

VIII. PROPOSAL-CONTRACT FORM
Contract B - Concord Township Fire Department

<u>ITEM #</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT PRICE</u>
1.	Self Contained Breathing Apparatus, per Concord Township Specifications	33	\$ _____
2.	Face Pieces	54	\$ _____
3.	4500 PSI, 45 minute bottles	66	\$ _____
4.	Emergency Air-Supply System (RIT)	2	\$ _____
5.	Voice Amplifiers	54	\$ _____

Warranty: _____

Delivery (days after receipt of purchase order): _____

CONDITIONS: The Instructions to Bidders and the Specifications are a part of this contract as effectively as though they preceded the signatures of the parties. This contract is not valid until accepted and signed by the City of Mentor.

IX. STATEMENT OF BIDDER QUALIFICATIONS

- 1) Years in business providing the goods or service requested in this bid _____
- 2) Please list on a separate sheet(s), contracts with municipalities previously held, and now held. Please list by community name, contact person, address, phone number and scope of project (starting with the most recent).
- 3) Is your company in satisfactory financial condition? Yes _____ No _____
- 4) How many miles is your facility from the Mentor Municipal Center? _____
- 5) Please list on a separate sheet(s) the equipment to be used in fulfilling this contract.
- 6) Identify the project manager who will be assigned to this project and applicable years of experience managing comparable jobs.

For the following questions, on a separate sheet, please describe in full the circumstances for any Yes answer.

- 7) Has your company had any business interruptions as a result of financial conditions in the past two (2) years? Yes _____ No _____
- 8) Has your company been rejected for a public contract despite being a low bidder for any reason? Yes _____ No _____
- 9) Has your company had any claims against or a performance bond cancelled? Yes _____ No _____
- 10) Has your company paid penalties or liquidated damages imposed as a result of delay on a public project? Yes _____ No _____
- 11) Has your company been found to have committed an unfair labor practice or any other employment/labor law violation in such areas as discrimination, prevailing wage, Workers' Compensation or OSHA? Yes _____ No _____
- 12) Has your company in the last three (3) years had a municipal contract cancelled or terminated? Yes _____ No _____

VII. STATEMENT OF BIDDER QUALIFICATIONS (continued)

BIDDER NAME (print/type): _____

BIDDER ADDRESS: _____

BIDDER CONTACT: _____

BIDDER PHONE NUMBER: _____

BIDDER FAX NUMBER: _____

BIDDER E-MAIL: _____

Federal Tax Identification Number _____

State Tax Identification Number _____