



Department of Public Works

Invitation to Bid

Installation of a 7.5 hp 6000 PSI Breathing Air Station

365 East Litchfield Rd. Litchfield, Connecticut

The Town of Litchfield is accepting bids for Procurement and installation of a 7.5 hp 6000 PSI Breathing Air Station for the East Litchfield Volunteer Fire Department. All bids must be submitted on forms and in accordance with specifications supplied by the Town of Litchfield, Public Works Department, 101 Russell Street, Litchfield CT. **Bids will be received at the Office of the First Selectman, 74 West Street, Litchfield, CT, 06759 until 11:00 a.m. on Wednesday September 7, 2016 and will be opened and read publicly at that time in the Office of the First Selectman.** There is a non-refundable \$10 fee unless electronically downloaded from the Town of Litchfield web site www.townoflitchfield.org.

Instructions to Bidders

1. Intent

The intent of these specifications is for Procurement and installation of a 7.5 hp 6000 PSI Breathing Air Station for the East Litchfield Volunteer Fire Department. The Vendor shall have adequate equipment, and materials for this project to insure completion by **October 28th, 2016**.

All Bidders shall observe the following instruction and specifications:

2. General Provisions and Milestone Dates

| | |
|-----------------------------|--|
| Date of Final Questions: | Friday, September 2, 2016 at 1:00 p.m. |
| Receipt Deadline & Opening: | Wednesday September 7, 2016 at 11:00 a.m. |
| Place of Opening: | Office of First Selectman, 74 West Street, Litchfield, CT 06759 |
| Tentative Award Date: | Board of Selectman's meeting Tuesday September 20, 2016 |
| Period of Performance: | Wednesday September 21, 2016 to Friday October 28, 2016 |

Bid Return Envelope: Bidders shall submit bids in an envelope clearly marked, with the bid title and opening date to prevent a sealed bid from being opened prior to the opening date. Any bid not so marked and opened by the Town shall be rejected.

The following forms must be submitted:

- A. Bid Schedule
- B. Hold Harmless Agreement and Supplemental Agreement
- C. Completed Projects and References
- D. Non Collusion Form
- E. Non Discrimination Form

Note: This bid and contract will supersede any and all previous agreements for this work.

4. Proposal Questions

Any questions pertaining to the scope of the work or content or procedure for submitting proposals should be directed to Fire Company Engineer Arthur Schmidt by e-mail or by phone or text to be received no later than Friday September 2, 2016 at 1:00 p.m. Any questions received after that date will not be answered. Contact information is as follows:

Arthur Schmidt Fire Company Engineer
Litchfield, CT 06759
(860) 329-7644
estlitchfield@optonline.net

5. Basis of Award

It is intended this Contract shall be awarded to the Bidder that best meets the needs of the Town of Litchfield with respect to qualifications as referred to on the “*Qualification of Bidder*” page, contractor’s submitted start date, and cost. Qualifications shall include the ability of the Contractor to complete all work within the stated time frame.

6. Notice of Award

The Town shall give notice of Acceptance of a bid to the successful bidder by mail to the Bidder’s address stated in the bid. Individuals are invited to attend the Bid Opening, with official bid results pending notification of the successful bidder.

7. Award of Contract

The Town reserves the right to reject any and all bids for any reason the Town deems advisable, and to award contract or contracts to any Contractors bidding on the work, regardless of the amount of bid. Contract may be awarded by building to multiple bidders based on price and ability of individual bidders to complete the work in the time frame required.

8. Bid Security

A bid bond or certified check is not required for this bid.

9. Performance; Labor and Material Bond

A performance bond or certified check is not required for this bid.

10. Scope of Work Change

The Town reserves the right to change the scope of the project after the bid is awarded, without penalty to the Town. All changes in scope will be issued in writing by the Towns Fire Commission or their designee.

11. Substitution of Named Brands

Should brand names appear in this bid, before bidding on any item considered equal to or better than a named item, the Bidder must get written approval from the Litchfield Fire Commission.

12. Price, Discounts, and Payment

Prices bid shall not include any taxes, Local, State, or Federal, as the Town is not liable. In addition to the price bid, each Bidder may quote binding discounts, which will be considered when making the award.

13. Delays

Contract time delays for completion of work shall be authorized in writing by the Town of Litchfield Fire Commission.

14. Assignment of Contract

Contractor shall not sublet, sell, transfer, assign, or dispose of contract or any portion thereon or of right, title, or interest therein of obligations thereunder, without written consent of the Town.

15. Acceptance of Subcontractor

Submission of name of Subcontractor in proposal shall be deemed to constitute an acceptance by Contractor, if awarded contract of bid, of such Subcontractor. Any alteration therein, after award of contract, shall be subject to the approval of the Town.

16. Basis of Payment

Payment for this work shall be at the lump sum bid for work completed and accepted, except as noted herein and shall include all equipment, materials, labor, and tools incidental to the completion of this work.

17. Payments for Extra Work

Written notice of claims for extra work shall be given by Contractor within ten (10) days after receipt of written instruction from the Town as approved by the Towns Fire Commission to proceed with extra work and also before any work is commenced, except in emergency endangering life or property. No claim shall be valid unless so made. In all cases, Contractor's itemized sheet showing all labor and material must be submitted to the Towns Fire Commission or designee. Town order for extra work shall specify any extension of contract time and one of the following methods of payment:

- A. Unit Prices or combination of unit prices.
- B. A lump sum based on Contractor's estimate accepted by owner and approved by the Litchfield Fire Commission.
- C. Actual costs plus ten percent (10%) for overhead and profit.

18. Payment Requests, Retainage and Guarantee Period

Contractor must submit a payment request for payment once each month for work done and materials delivered and installed on the site. Each request for payment must be computed from work completed, less ten percent (10%) to be retained until expiration of the guarantee period, which is one (1) year from written acceptance of work.

19. Insurance

The contractor will file with the Town of Litchfield, the following evidence of insurance. Certificates must be on file with the Town before acceptance of Bid or work commences.

Workers Compensation

Coverage A: Statutory

Coverage B: Employers Liability:

| | |
|---------------------------|-----------------------|
| Bodily injury by accident | \$ 100,000 per person |
| Bodily injury by disease | \$ 100,000 per person |
| Bodily injury | \$ 500,000 aggregate |

Comprehensive Commercial Liability

| | |
|---------------------------------|------------------------|
| Bodily injury; General Limit | \$ 1,000,000 aggregate |
| Products/Completed Operations | \$ 1,000,000 aggregate |
| Personal and Advertising Injury | \$ 1,000,000 aggregate |

| | |
|-------------------|------------------------|
| Each Occurrence | \$ 1,000,000 aggregate |
| Fire Damage Limit | \$ 1,000,000 aggregate |
| Medical Expenses | \$ 100,000 per person |

Premises/Independent Contractors
Contractual/Completed Operations/Products
Contractual/Liability will be Broad Form
XCU (explosion/collapse/underground utilities)
Comprehensive Broad Form Liability endorsement or Equivalent
Broad Form property Damage Liability

Automobile Liability

| | |
|-----------------|------------------------|
| Bodily Injury | \$1,000,000 per person |
| Aggregate | \$1,000,000 per person |
| Property Damage | \$1,000,000 per person |

Coverage:

All owned/non owned/hired/borrowed
Contractual liability to be included

Contractors must name the Town of Litchfield as an additional named insured on all certificates. All policies will provide thirty (30) days' notice of cancellation as well as ten (10) days' notice of material change in the policies to the First Selectman's Office of the Town of Litchfield.

20. Environmental Health and Safety Compliance

The contractor must comply with all local, state and federal environmental health and safety regulations. The contractor must submit a Health and Safety Plan to the Director of Public Works prior to commencing the project.

21. Hold Harmless Agreement

The Contractor agrees to hold harmless the Town of Litchfield and its respective officers, agents, and employees from any loss, costs, damages, expenses, judgements, and liability whatsoever kind or nature howsoever the same may be caused resulting directly or indirectly by any act of omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable resulting in bodily injury including sickness and death, personal injury, or damage to property directly or indirectly, including the loss of use resulting therefrom as permitted by law. The Contractor will be required to sign the enclosed Hold Harmless Agreement prepared by the Town.

22. Supplemental Agreement

The Contractor named below is an independent contractor and neither the Contractor nor its employees nor the Contractor's Subcontractor(s) under any circumstances, will be considered servants or agents of the Town of Litchfield and the Town will be at no time legally responsible for any negligence or other wrong doing by the Contractor, its servants or agents or the Contractor's Subcontractor(s). The Town will not withhold from contract payments to the Contractor any Federal or State unemployment taxes, Federal or State Income Taxes, Social Security Tax, or any other amount for benefits to the Contractor. The lump sum or unit charges for service provided does not represent gross wages and further the Town will not provide the Contractor any insurance coverage or other benefits, including Worker's Compensation, normally provided by the Town to its employees. The Contractor will be required to sign the enclosed Supplemental Agreement prepared by the Town.

23 Length of Contract (Period of Performance)

Period of performance Wednesday September 21, 2016 to Friday October 28, 2016

24 Damage

The Contractor will be responsible for any loss or damage that may happen during installation and will make good any defects or faults that may occur. Reasonable care must be taken to prevent damage to surrounding structures.

Sealed bid proposals are to include the following:

- All labor to place the fill station in our desired location at the East Litchfield Volunteer Fire Co.
- All equipment and documentation as described herein.
- Training for the safe and efficient operation of the fill station.
- Sampling and analysis of fill station output air to verify that it meets all applicable standards for breathable air.

Vendor Requirements

- Successful vendors must be present at time of delivery to inspect the item to insure no damage has occurred during shipment. Unsupervised drop shipments are not permitted.
- Prospective vendors must provide third party certification documents to certify the product meets NFPA 1901 these documents shall include written certification and video documentation of the successful test.
- To insure the successful vendor can provide emergency services, prospective vendors must have at least one (1) physical location located within the state of Connecticut or Massachusetts. Prospective vendors must list on a separate page a complete list of all service location(s) in Connecticut and/or Massachusetts.
- Prospective vendors must have sold a similar product within the state of Connecticut or Massachusetts within the past 24 months and shall provide on a separate page a list of Connecticut or Massachusetts customers who have purchased from the vendor a similar product within the past 24 month's including contact names and numbers.
- Prospective vendors must operate a dedicated mobile breathing air compressor service vehicle capable of providing emergency services 24/7/365. Prospective vendors must submit with their proposal documents that support this service is available, documents shall include location vehicle is based, emergency contact information for service calls, complete list of compressor technicians, and a photograph of the service vehicle.

Price

The price shall be guaranteed for one hundred and eighty (180) days from the date the bid is opened. Payment terms, if any, shall be submitted with the bid, but mandatory pre-payment shall be cause for bid rejection. The completed system shall not be finally accepted or paid for until the system has been evaluated and tested to the full satisfaction of the Fire chief or his designee.

Overall Requirements

The breathing air station shall be comprised of a 6000 PSI, 7.5 hp, 4-stage high pressure compressor, compressed air purification system, continuous CO and water vapor monitoring equipment, air storage system, cascade fill control panel, and containment fill station. All components shall be incorporated into an enclosure complete with means for sound attenuation. The enclosure shall be designed to facilitate inspection and maintenance of all internal components. The station shall be designed for against the wall installation, operation, and maintenance, and single point operator control from the front of the station. All system instrumentation, controls and access to the containment fill station shall be located on the front of the station. The station shall be designed for continuous duty indoor operation with ambient temperatures between 50F and 100F. Piping shall be installed in a neat and orderly arrangement, and all instrument tubing shall be 300 grade stainless steel or better. The station shall be warranted to be free from defects in material and workmanship for a period of 24 months from date of shipment.

Compressor

The reciprocating compressor shall be air cooled, oil lubricated, and have four stages. It shall be powered by a 7.5hp open drip proof, 220VAC, 60 Hz, single phase electric motor. The compressor shall have a charging rate of at least 9.7 cfm, and be capable of at least 8.1 cfm Free Air Delivery at 6,000 psi. An intercooler shall be provided for each stage of compression, and an aftercooler shall be provided after the final stage of compression that is capable of cooling the discharge air to within 18 degrees F of ambient temperature. A separator shall be supplied after the second and third stages, and a coalescing separator supplied at the compressor discharge with all separators provided with an automatic condensate drain system. The automatic condensate drain system shall unload the compressor on shutdown and be provided with a condensate reservoir with a high liquid level sensor to shut down the system and alert the operator that the reservoir is full. Manually operated valves shall be included to override the automatic condensate drain system's operation for testing and maintenance. Two highly visible sight glasses shall be provided on each crankcase to check oil level, and the oil drain shall be designed to facilitate oil draining operations outside of the compressor cabinet. Power from the electric motor to the compressor shall be transmitted by a v-belt drive that includes automatic belt tensioning.

Air Purification System

The air purification system shall purify high pressure discharge air to a quality that meets or exceeds the requirements of the latest editions of NFPA 1989, Standard on Breathing Quality Air for Emergency Services Respiratory Protection, CGA Pamphlet

G-7, Compressed Air for Human Respiration, AN- SI/CGA G-7.1, Commodity

Specification for Air, Grade E, and all other recognized standards for breathing air. The high pressure purification system shall have a working pressure of 6,000psi, be designed for easy replacement of filter cartridges including provision of a depressurization bleed valve. Purification system design shall not allow system operation with missing or improperly installed cartridges. Valves shall be provided to maintain a positive back pressure in the purification system when the compressor shuts down. The purification system shall include a continuous moisture monitor with output to the HMI that indicates the status of the system and announces to the operator that the moisture absorbing cartridge is due for replacement. Failure to replace the cartridge shall result in system shut down, and the sensing system shall be of fail-safe design so that shut down will also occur should there be a loss of monitoring function, and there shall be no manual override provided.

Cascade Fill Controls

The cascade control panel shall be factory piped for two storage receivers and designed to fill two SCBA cylinders either independently or simultaneously. The control panel shall include, at a minimum, a manual control valve and pressure gauge for each storage receiver, an adjustable regulator for SCBA cylinder fill pressure complete with a pressure gauge for inlet and regulated pressure and a relief valve to protect the SCBA cylinders from overfilling, a manual control valve and pressure gauge for each fill position, and a manual direction valve to allow the operator to select SCBA filling from either air storage or the compressor. The cascade system shall allow the simultaneous tasks of filling one storage receiver while drawing down another during the SCBA fill process. Strategically placed tees and check valves shall preclude the need for individual "To" and "From" valves. Systems requiring individual "To" and "From" valves shall not be deemed acceptable, as they require more effort to operate and reduce the overall efficiency of the operation. The instrument panel shall be located and arranged for visibility and easy access by the operator and be hinged for easy accessibility, inspection, and maintenance

All control panel mounted pressure gauges shall have a 2 1/2" diameter and be liquid filled. The panel shall have factory installed lighting. An on/off switch shall be integrated into the operator/compressor interface for the light.

Air Storage

The air storage system shall include two ASME receivers fabricated, tested and stamped in accordance to Section VIII of the ASME Boiler and Pressure Vessel Code. The receivers shall have a 3:1 safety factor at 6000 PSIG. Each receiver shall have a capacity of 491 cu. ft. at 6000 PSIG. The receivers shall be mounted in a vertical configuration in a rack that is integral to the breathing air station's frame. The rack shall be designed to accommodate two identical receivers. The receivers shall be installed in accordance with 29 CFR 1910.169. The rack shall be designed to support the receivers in a secure manner and permit visual inspection of the receivers' external surface. Each receiver shall be supplied with a manual drain valve, an isolation valve and safety relief valve. For ease of maintenance and periodic inspection, all the drain valves shall be piped to one convenient location. Each receiver shall be piped to the cascade fill control panel to facilitate cascade filling.

Containment Fill Station

The front-loading two position, containment fill station shall totally enclose the SCBA cylinders during the refilling process. The fill station shall be NFPA 1901 compliant, and the fill station's cylinder holders, outer enclosure, and door assemblies shall all be designed so as to be able to contain a cylinder and/or cylinder fragments in the event of a cylinder rupture during filling. Test results conducted by an independent third party confirming the ability of the fill station to safely contain all fragments from a failed SCBA cylinder charged to 5500psi shall be provided. Venting shall be provided to allow the rapidly expanding air from a ruptured cylinder to escape from the fill station. The fill station shall be ergonomically designed for maximum operator convenience and safety for refilling cylinders. The fill station door and cylinder holder assembly shall tilt out towards the operator 45 degrees, providing unobstructed access to the cylinder holder to load and unload the cylinders. A heavy-duty gas spring shall be incorporated into the design of the fill station to assist the operator in opening and closing the fill station Door. Each cylinder holder shall be lined to prevent scuffing the outer surface of the SCBA cylinders. For complete operator protection, the fill station shall include an automatic safety interlock system that will prevent refilling SCBA cylinders unless the fill station door is closed and secured in the locked position. Two fill hoses shall be located within the fill station. Each fill hose shall be equipped with a bleed valve and SCBA fill adapter. Fill hose retainers shall be provided to anchor the fill hoses when not in use.

Testing and Preparation for Shipment

The breathing air station shall be tested by the manufacturer prior to shipment.

A manufacturer's nameplate shall be placed in a readily accessible location. The nameplate shall include, at a minimum, manufacturer's name, model number, serial number, compressor block number and date of manufacture. Voltage, phase and frequency and amperage information should also be displayed on a label in a readily accessible location.

The station shall be suitably prepared for motor freight transport. The station shall be bolted to a wooden pallet, wrapped in sheet plastic and fully protected by a wooden crate. The compressor intake and similar openings shall be suitably covered. Component parts, loose parts or associated spare parts shall be packaged separately and shipped on the same pallet if feasible.

Documentation: A documentation package shall be supplied with the station. The documentation package shall include, at a minimum, two copies of an operation manual (one on CD and one hard copy,) recommended spare parts list, warranty information and a start-up/warranty registration form.

The Operator's Instruction and Maintenance Manual for the breathing air station shall be as detailed as possible, outlining all operation and maintenance instructions. The manual shall include detailed illustrated drawings for the compressor block and all system components along with Piping and Instrumentation Diagram (P&ID) and complete parts listing for all illustrated components. Warnings and safety precautions shall be identified clearly in the manual.

Installation, Start-up and Training

The breathing air station shall be installed at the East Litchfield Volunteer Firehouse, 365 East Litchfield Road, Litchfield, Connecticut. Installation shall include moving the fill station into position. The East Litchfield Volunteer Fire Company shall be responsible for providing the required electrical service for the new fill station including a locally mounted lockout-capable power on/off switch and a qualified source of air to the intake of the compressors.”

Equipment start-up procedures shall verify that all equipment and instrumentation is operating according to specification. Air samples shall be taken and analyzed to verify that output air quality meets all applicable standards for respirable air. Any operating or performance deficiencies that may be identified during start-up shall be corrected in a timely manner and at the supplier's expense. The equipment shall be set up and calibrated for the safe filling of the East Litchfield Fire Company's existing inventory of SCBA cylinders having a 4500psi maximum of design fill pressure.

Hands on training for the safe and efficient operation of the fill station shall be provided to designated members of the East Litchfield Fire Company following installation and start-up of the equipment. This training shall include basic equipment operation, recommendations for efficient cylinder filling procedures, operation and calibration of air quality monitoring equipment, routine equipment maintenance, emergency procedures, and procedures and requirements for the safe operation of the equipment.

Bid Schedule

East Litchfield Fire Department 7.5 hp 6000 PSI Breathing Air Station 2016

**For
Town of Litchfield**

Lump Sum Bid \$ _____

_____ U. S. Dollars

Installation Start Date _____

** If a discrepancy the written word will prevail.

The undersigned is familiar with the conditions surrounding this call for bids, is aware that the Town reserves the right to reject any and all bids, and is submitting this bid without collusion with any other person, individual, or corporation.

Bidder _____

By _____

(Signature)

(Title)

Name – Typed _____

Date _____

Address _____

Phone _____

Fax _____

Email _____



NON-COLLUSION AFFIDAVIT

(This affidavit must be signed and sworn to by the person signing bid)

AFFIDAVIT FOR CORPORATION BIDDER

STATE OF _____

COUNTRY OF _____

_____ Being first duly sworn, deposes and says:
(Persons Name)

That they are the _____ of the corporation who
(Official Title of Cooperate Officer or Agent)

Is the Bidder submitting the accompanying bid for Town Project, and that they, being duly authorized, signed this affidavit on behalf of said Bidder; and that such bid is genuine and not a sham or collusive or made in the interest or on behalf of any person not therein named; and that said Bidder has not directly or indirectly, induced or solicited any other Bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding and that said Bidder has not in any manner sought by collusion to secure said Bidder any advantage over any other Bidder; and that said Bidder has not otherwise taken any action in restraint of free competitive bidding in connection with the subject bid.

Signed and sworn to before me this _____ day of _____, 20__

_____ My Commission expires _____
Notary Public
(Seal)

(Signature of Cooperate Officer or Agent)



NON-COLLUSION AFFIDAVIT

(This affidavit must be signed and sworn to by the person signing bid)

AFFIDAVIT FOR INDIVIDUAL BIDDER

STATE OF _____

COUNTRY OF _____

_____ Being first duly sworn, deposes and says:
(Persons Name)

That they are the person who is the Bidder submitting the accompanying bid for Town Project, and that they, having read, understood, and agreed to all the terms and provisions thereof, signed this affidavit; and the accompanying bid; and that such bid is genuine and not a sham or collusive or made in the interest or on behalf of any person not therein named; and that said Bidder has not directly or indirectly, induced or solicited any other Bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding and that said Bidder has not in any manner sought by collusion to secure said Bidder any advantage over any other Bidder; and that said Bidder has not otherwise taken any action in restraint of free competitive bidding in connection with the subject bid.

Signed and sworn to before me this _____ day of _____, 20____

_____ My Commission expires _____

Notary Public
(Seal)

(Signature of named individual)



TOWN OF LITCHFIELD

NONDISCRIMINATION CERTIFICATION

Representation by Entity

Written representation that complies with the nondiscrimination agreements and warranties under the Connecticut General Statutes ss/ss 4a-60(a)(1) and 4a-60a(a)(1) as amended.

Instructions:

For use by an entity (corporation, limited liability company, or partnership) when entering into any contract type with the Town of Litchfield, regardless of contract value. Submit to the awarding agency prior to contract execution.

Representation of an Entity:

I, _____, _____, of _____,
Authorized Signatory Title Name of Entity

An entity duly formed and existing under the laws of _____,
Name State of Commonwealth

Represent that I am authorized to execute and deliver this representation on behalf of

_____ and that _____ has a
Name of Entity Name of Entity

Policy in place that complies with the nondiscrimination agreements and warranties of Connecticut General Statutes ss/ss 4a-60(a)(1) and 4a-60 (a) (1) as amended.

Authorized Signatory

Date

Printed Name

