



CITY OF DURHAM | NORTH CAROLINA

Date: July 8, 2014

To: Thomas J. Bonfield, City Manager

Through: Wanda S. Page, Deputy City Manager

From: David Boyd, Finance Director
Jonathan Hawley, Purchasing Supervisor

Subject: Bids – Fire Department Self Contained Breathing Apparatus

Executive Summary

The contract under consideration will provide the Fire Department with Self-Contained Breathing Apparatus (SCBA). This equipment was approved in the FY 2014/15 budget. The total cost of the contract is \$1,555,556.94. Funding for this contract is available from the Fire Department Capital Improvement Plan (3501B900-660007-CK107). All bids received were competitive and within budget.

The Fire Department's current self-contained breathing apparatus (SCBA) manufacturer is no longer going to support the current inventory of SCBA with parts or warranty work. The department is concerned that should one of the SCBAs in the department's inventory be taken out of service for any reason, there will be no way to replace or repair it. Another concern is that a product recall without needed repair parts will negate the Fire Department's ability to enter burning structures. Additionally, the current SCBA manufacturer is not producing a product compliant with the current National Fire Protection Association (NFPA) standards. For firefighter safety reasons, the Fire Department must replace all of its SCBAs at one time, in order to have manufacturer supported NFPA 1981 and 1982-2013 standard compliant SCBAs. Replacement of the existing SCBA platform will ensure that firefighters can perform offensive firefighting operations, which means the Fire Department will continue to have the means to enter burning structures to extinguish fires and rescue victims.

Recommendation

That the bid for the purchase of SCBA equipment in the amount of \$1,555,556.94 from Municipal Emergency Services be approved and the City Manager be authorized to execute all relevant contracts; and,

That the City Manager be authorized to modify the contract before execution provided that modifications do not increase the dollar amount of the contract and are consistent with the general intent of the existing version of the contract.

Background

The Durham Fire Department initiated a program to evaluate Self-Contained Breathing Apparatus (SCBA) compliant with National Fire Protection Association (NFPA) standard 1981/1982, 2013 edition. The Department initiated this program in anticipation of replacing its current stock of SCBA with new 2013 compliant models. The Department extended invitations to all manufacturers who submitted an SCBA to NFPA for the 2013 standard approval. Program guidance information was provided to each manufacturer along with the invitation.

Manufacturers invited to participate in the Durham Fire Department's SCBA evaluation program were instructed to conduct a presentation for the Administration and Training staff. The manufacturers' representatives were further asked to provide at least four SCBAs, and sufficient spare cylinders for Fire Department testing, as well as provide copies of the operator's and service manuals and technical SCBA specifications. Presentations were made to Fire Department staff by five separate SCBA manufacturers on the following dates:

- Interspiro November 19, 2013
- Avon-ISI November 20, 2013
- Scott November 20, 2013
- Draeger November 21, 2013
- MSA November 22, 2013

The controlled testing phase of the SCBA evaluation program took place from January 14, 2014 through March 16, 2014. During this phase of the program, each manufacturer's SCBA equipment was rigorously tested, with all the operational functions and manufacturer's recommended procedures evaluated. Personnel participating in the controlled testing phase were selected by the Assistant Chief of Operations.

The evolutions in the controlled testing phase consisted of practical scenarios that simulated actual firefighting situations and tested the limits of each SCBA submitted for evaluation. At no time during the controlled testing phase did the evaluators of the SCBA being evaluated enter an environment that was immediately dangerous to life and health (IDLH), thus ensuring the safety of personnel.

The contract under consideration will provide the Fire Department with Self-Contained Breathing Apparatus equipment. The SCBA equipment was approved in the FY 2014/15 budget. The Purchasing Division solicited bids from seven bidders, and also posted bid notifications on the City's web site and in the local newspaper, and three responses were received. Of the three, one bid was determined to be non-responsive based on the vendor's not providing the required documentation to support a complete bid proposal.

Issues/Analysis

Through the evaluation process, it was determined that the Interspiro Spiromatic S7, the Avon Deltair, the Draeger PS7000, and the MSA G1 SCBAs would not suit the needs of the Durham Fire Department. These products were eliminated from contention largely due to safety concerns and ease of transition issues. The remaining SCBA, the Scott X3, was found to meet the needs of the Durham Fire Department.

The Scott X3 is a rugged SCBA that is built on a foundation of reliable and proven components. The Scott X3 SCBA is the only SCBA built on a 5500 pounds per square inch (psi) platform; all evaluators indicated that the lighter weight of the 5500 psi pack, in combination with the lower profile of the 45 minute 5500 cylinder, provided a tremendous benefit to the user. Moreover, all evaluators indicated that the Scott X3 provided the greatest volume of air per breath. These two factors led many evaluators to comment that they had more energy in reserve after completing the evaluations with a Scott SCBA, as compared to the SCBAs submitted by other manufacturers. Evaluators also consumed less air when performing the drills with the X3, as compared to other units. The X3 has the most secure connection of the 2nd stage regulator to facepiece, which ensures a reliable connection from the air tank to the face of the user. The X3 was the only pack which employed a detachable 2nd stage regulator that did not experience an accidental disconnection during evaluations. In addition, the VibraAlert low air alarm, which is unique to Scott SCBA, was a highly rated feature on the X3.

The following bids were bids received for furnishing SCBA equipment:

COMPANY	BID
Municipal Emergency Services Charlotte, NC	*1,555,556.94
American Blazemasters Mars, PA	Non-Responsive
Atlantic Emergency Solutions Manassas, VA	No Bid

*Recommended Bid

Alternatives

The alternative is not to approve the purchase, in which case the Fire Department would seek to secure a cache of spare parts for the SCBA currently in use by the Durham Fire Department. However, there would be potential that the department would be unable to maintain the current level of public protection with this alternative.

Financial Impact

The total cost of the contract is \$1,555,556.94. Funding for this contract is available from the Fire Department FY15 Capital Improvement Plan (3501B900-660007-CK107).

SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the bid submitted by Municipal Emergency Services of Charlotte, NC and determined they are in compliance with the Ordinance to Promote Equal Opportunities in City Contracting. There were no SDBEs to provide this product.

SDBE REQUIREMENTS

There were no SDBEs to provide this product.

WORKFORCE STATISTICS

The workforce statistics for Municipal Emergency Services are as follows:

Total Workforce	265	100%
Total Females	57	22%
Total Males	208	78%
Black Males	1	1%
White Males	198	73%
Other Males	9	4%
Black Females	0	0%
White Females	53	20%
Other Females	4	2%