

# City of Alexandria, Virginia

## MEMORANDUM

**DATE:** APRIL 12, 2013  
**TO:** THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL  
**FROM:** RASHAD M. YOUNG, CITY MANAGER   
**SUBJECT:** BUDGET MEMO #17: CITY SELF-CONTAINED BREATHING APPARATUS (SCBA) REPLACEMENT

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The purpose of this memorandum is to address Councilmember Wilson and Smedberg's questions and the Mayor's request for more information regarding Self-Contained Breathing Apparatus (SCBA) from the March 20<sup>th</sup> CIP budget work session.

### Current State of SCBAs

SCBA primarily covers any of the firefighters, medics and fire marshals who enter an Immediately Dangerous to Life and Health (IDLH) environment. Additionally, the Alexandria Police Department (APD) and the Alexandria Sheriff's Office (ASO) have SCBA for use by APD's Special Operations Team and by ASO personnel within the Public Safety Center and Courthouse both for incident response. Only with this equipment is it safe for employees to enter such an environment, which is critical to the first responder's mission of saving lives. The Fire Department administers and maintains the SCBA program for the City (including the equipment used by APD and ASO).

The Occupational Safety & Health Administration (OSHA) outlines standards related to the safety requirements for a proper respiratory protection program, selection and proper use of respirators, medical evaluation, fit testing, maintenance, breathing air quality, training, program evaluation, and record keeping. Every 5-6 years, the National Fire Protection Association (NFPA) updates their standards to ensure all SCBA are meeting the highest safety requirements and regulations. The latest standards were released March 2013 and become effective August 1, 2013, replacing the previous standards that were written in 2007.

The air cylinders for all SCBA gear have a service-life of 15 years, however other SCBA components (masks, regulators, packs, etc.) have no set service life and are replaced and repaired as needed. Though currently all of our air cylinders are under the service life limit, replacing them will necessitate the replacement of the SCBA gear in its entirety due to the differing size and specifications of the cylinders and their ability to be used with the other SCBA components. The AFD currently has 110 SCBA gear sets that are compliant with 1997 standards that were

received in 2001. AFD also has 105 SCBA gear sets that are compliant with 2002 standards that have mixed age and range from 6-10 years old.

APD and ASO have 30 and 62 SCBA gear sets respectively, which are also compliant with 2002 standards and approximately 10 years old. APD has turned their gear over to AFD due to lack of training funds needed to certify their employees with its use. APD is interested in developing SCBA capability, but needs adequate funding for staffing, training and equipment to implement a sustainable program. ASO currently trains and re-certifies their employees annually in the use of SCBA gear and are prepared to use it if necessary. It should be noted that no SCBA in the City are compliant with the 2007 standards or the recently released 2013 standards and we are the only jurisdiction in the COG region operating SCBA dating back to the 1997 standards.

### **Issues with Not Replacing SCBAs**

There are several issues associated with not replacing our current inventory of SCBAs:

- The NFPA standard *1404 Standard for a Fire Department Self-Contained Breathing Apparatus Program* contains the minimum requirements for the training component of SCBA use. Areas addressed include safety procedures for those involved in fire suppression, rescue, and related activities in a toxic, contaminated, or oxygen-deficient atmosphere or environment. Since 2001, the standard and guidance related to Weapons of Mass Destruction (WMD), and chemical, biological, nuclear, radiological, and etiological hazards (CBRN, CBRNE) have been upgraded with which a portion of our gear currently does not comply.
- Lack of Pak-Tracker equipment – Fairfax County, Arlington County, Loudon County, Fairfax City, the Airport Authority, and DC Fire Department are all operating with Pak-Tracker equipment. The Pak-Tracker equipment as part of newer SCBA allows personnel to locate a lost person. Currently, if we have a firefighter who becomes unconscious inside a building, we do not have an automated way to track and find them.
- Absence of ergonomic changes that reduce the total weight of the SCBA and prevent back injuries.

### **Costs of Replacement**

There are two identified options to fund the replacement of SCBA: 1) a full purchase plan, and 2) a phased purchase plan. Leasing this SCBA equipment was also considered to address this issue, however is not recommended. Leasing the equipment costs more over time, has hidden borrowing costs and counts towards our debt limits. Additionally, the equipment would likely need to be turned back in to the vendor at the end of the 5-year lease period for each phase or would require additional funding to buy the equipment at the end of the period.

A summary of the purchase costs of each of those phases and in total are as follows\*:

	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	<b>Full Replacement</b>
<i>Year Replaced</i>	FY 2014	FY 2015	FY 2016	FY 2014
<i>Number of SCBA to replace</i>	140	75	92	307
<i>Functional Areas</i>	Fire Dept. frontline apparatus & recruit school	Medics, Fire Marshals, Volunteers & Reserve Apparatus	Police & Sheriff	All
<b>Cost to Purchase</b>	<b>\$1,305,271</b>	<b>\$721,604</b>	<b>\$786,674</b>	<b>\$2,813,549</b>

\*Costs outlined in this table are based on preliminary estimates of gear prices to meet the new 2013 NFPA standards which have not yet been finalized. Since the gear based on these standards is not yet available, the price for all of these options may be higher or lower than what is listed at the time of actual purchase.

SCBA has not been on a regular equipment replacement schedule similar to vehicles and apparatus since at least prior to 1997. SCBA has been replaced since then primarily using grant funding. OMB and AFD are still determining what the appropriate replacement schedule of this equipment should be based on its expected useful life and regularly enhanced NFPA standards. Furthermore, none of these plans set aside necessary funding for future replacement of this equipment in the out years. As a result, the necessary funding amount which would be required in order to fund any future equipment replacement plan that is created will need to be calculated and added in future fiscal years.

### **Other Cost/Funding Considerations**

As part of the FY 2014 budget development process, AFD submitted a request for additional funding for SBCA replacement but given the current budget situation, the request was not granted. AFD was approved for several other budget initiatives in FY 2014 including: \$890,000 in additional overtime funding, \$362,782 to fund apparatus and vehicle replacement, and \$749,000 to increase base pay for Firefighters, Medics and Fire Marshalls to align with comparable Metro DC market rates. Based on competing budget priorities and given the age of the equipment, it was determined that this request would have to be addressed as part of the FY 2015 budget process. As a result of this decision, once Council Guidance was established, staff believed it was a suitable project to include as part of the 3-cent add-on for CIP projects as it would allow for the funding of this project one year earlier and met the projects outlined by Council.

Additionally, AFD applied for a grant for SCBA through the Assistance to Firefighters grant for both the 2011 and 2012 grant cycles. AFD was denied for the 2011 grant and is still waiting to hear on the 2012 grant. The maximum award AFD can receive from that grant is \$800,000. If AFD is successful for the 2012 grant cycle, there is a \$199,500 City match requirement, which would come from funds that are currently designated in Contingent Reserves in the Non-Departmental budget for Fire Safety Improvements. If the grant is not awarded, those funds could be used towards SCBA replacement. In addition, in the FY 2013 budget, City Council

approved an additional \$180,000 towards preparing for AFD SCBA replacement, which could also be applied towards this effort.