

**Item No. 11.1.1**  
**Halifax Regional Council**  
**December 7, 2010**

**TO:** Mayor Kelly and Members of Halifax Regional Council

Original Signed by 

**SUBMITTED BY:**

Wayne Anstey, Acting Chief Administrative Officer

Original Signed by 

Mike Labrecque, Deputy Chief Administrative Officer

**DATE:** November 15, 2010

**SUBJECT:** Award – RFP No. 10-070, Supply and Delivery of Self Contained Breathing Apparatuses (SCBA), Compressed Air Cylinders, Integrated Communications Components, And Accessories for HRFE

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**ORIGIN**

Approved 2010/11 Project Budget & Advanced/Proposed 2011/12 Project Budget, Account No. CEJ01227, Self Contained Breathing Apparatus Replacement.

**RECOMMENDATION**

It is recommended that Halifax Regional Council:

- 1) Award RFP No. 10-070, for the Supply And Delivery Of Self Contained Breathing Apparatuses (SCBA), Compressed-Air Cylinders, Integrated Communications Components, and Accessories for HRFE (SCBA) to the highest scoring proponent, Mine Safety Appliances (MSA) for a Total Project Price of **\$4,743,424** (net HST included) with funding from Project No. CEJ01227- Self Contained Breathing Apparatus Replacement as outlined in the Budget Implications section of this report.
- 2) Approve advanced capital from the 2011-12 Project Budget of \$2,400,000 from Project No. CEJ01227- Self Contained Breathing Apparatus Replacement, as per the Budget Implications section of this report.

## **BACKGROUND**

HRFE is committed to providing cost effective, high quality Self Contained Breathing Apparatus (SCBA) to our Firefighters. Similar to SCUBA diving equipment, the SCBA unit provides our firefighters the ability to breathe, work and communicate in potentially toxic environments that would otherwise be perilous to health and safety.

At present our Firefighters use two different brands of SCBA which operate at two different pressures. The Survair brand SCBA is used in our urban communities. This brand operates at a working pressure of 4500 pounds per square inch (PSI). This working pressure allows Firefighters to work in hazardous environments of smoke and heat for up to 45 minutes before they exhaust their air supply. The actual "working time" is shorter due to the need for a "safety reserve" of breathing air in the event of an emergency.

The Scott brand SCBA is used in our suburban and rural communities. These SCBA operate at a working pressure of 2216 PSI. This allows a much shorter working time for our suburban and rural firefighters. These SCBA allow 20-30 minutes of use under ideal conditions which includes the emergency air reserve. In reality, this SCBA allow for a maximum of 15-20 minutes working time.

The Survair SCBAs are 12 years of age. This is beyond the generally accepted 10 year life cycle of an SCBA. The warranty period for these SCBAs has expired. The Scott SCBA are 7 years old and are approaching the end of their useful life and are also out of warranty.

Given the age of the current SCBA, it is required that HRFE replace this equipment. This replacement provides the opportunity to source one brand of equipment that will 1) provide for the operational safety of your Firefighters and 2) remove the operating pressures caused by the use of two different brands of SCBA.

Using dissimilar breathing apparatus with different operating pressures can impair the safety of our Firefighters. When different types of breathing apparatus are used at the same emergency, there are incompatibilities in how long the firefighters can work until they run out of air. This can cause crews to split up or can lead some firefighters to work beyond a safe emergency air reserve. Using dissimilar breathing apparatus can also make it impossible to supply emergency breathing air to a trapped or injured firefighter in a deadly atmosphere. In addition, when Firefighters are required to use two different types of breathing apparatus, significant time can pass since they used one type or the other. This can permit a reduced familiarity with the equipment, which can be hazardous. In a work environment where the worker cannot see and the air is deadly to breathe, the worker must be able to operate every part of the apparatus, without sight, while wearing heavy gloves and other bulky protective clothing and without conscious thought. The procurement of a single breathing apparatus will enhance safety by eliminating these risks.

Firefighters from one region (urban/suburban/rural) cannot refill /replenish their breathing air cylinders when operating in another region. Firefighters are trained to rescue other Firefighters in distress. Firefighters from one region may not be able to supply air to a firefighter trapped who

is equipped with different SCBA. Firefighters always work in at minimum, pairs in hostile environments. Health and Safety regulations prohibit the “pairing up” of firefighters with dissimilar SCBA’s Nova Scotia regulations state “...An employer shall ensure that a firefighter who is wearing self contained respiratory protective equipment when engaged in structural firefighting is accompanied by another firefighter similarly equipped having the same air capacity...”

The guidance standard for SCBA (National Fire Protection Association, standard 1981, “Standard on Open-Circuit Self-Contained breathing Apparatus for Emergency Services”) is updated every five years, with the most recent update having been done in 2007. Each update includes important safety features for firefighters. The procurement of “up to date” SCBA is required to provide HRM Firefighters with critical safety features, including:

- Improved systems to warn firefighters when they are low on breathing air,
- The addition of an emergency air supply connection, to provide air to a trapped firefighter in a hostile environment
- Improved and more durable “firefighter down” alarm to alert others of a Firefighter who has stopped moving,
- Reduced weight, which reduces firefighter fatigue, increases working time and reduces injuries
- Improved resistance to heat, water and vibration, and
- Improved ability to communicate while wearing SCBA

## **DISCUSSION**

Request for Expression of Interest (RFEOI) No.10-054, Self Contained Breathing Apparatus (SCBA) was issued and publicly advertised on HRM’s website May 26, 2010 and closed on June 15, 2010. Proposals were received from the following proponents:

Proponent	Score (100 max)
<b>Tyco / Scott Health &amp; Safety*</b>	100
<b>Mine Safety Appliances Co (MSA)*</b>	100
<b>K&amp;D Pratt / Sperian Fire*</b>	100
<b>Draeger Safety Canada Ltd.*</b>	94
Resqtech Systems, Inc. / Intersprio	51
Canadian Safety Equipment / International Safety Instruments (ISI)	48

\* Short listed proponents

The intent of the RFEOI was to identify qualified, experienced and interested parties to respond to a Request for Proposals (RFP) for Self Contained Breathing Apparatus equipment. Those Proponents’ not scoring 80% or more on the listed criteria for RFEOI were not short listed to proceed.

On August 9, 2010 RFP No. 10-070, Supply and Delivery of Self Contained Breathing

Apparatuses (SCBA), Compressed Air Cylinders, Integrated Communications Components, and Accessories For HRFE was issued to proponents short listed as a result of the outcome of RFEOI No. 10-054.

Proposals were received from the following proponents:

Proponent	Score (100 max)
<b>Mine Safety Appliances Co (MSA)*</b>	<b>85.84</b>
K&D Pratt / Sperian Fire	79.01
Levitt Safety Ltd / Scott Health & Safety	78.97
MicMac Fire Safety Ltd/ Scott Health & Safety	78.94
Draeger Safety Canada Ltd.	58.23 (cost envelope was not opened)**

\*Recommended

\*\* Minimum technical score not met, cost envelope not opened.

The RFP was scored using a two envelope process. Envelope one was the technical component of the RFP consisting of (Practical- firefighter's evaluation, Technical technicians' evaluation and, Understanding/Approach/ Methodology). Envelope two, cost proposals consists of unit cost for equipment, warranty and training for this project. Only those proponents that received 75% or better on the Technical Submission (maximum score 85 points) from envelope one had their cost envelopes opened and evaluated.

The Practical firefighters' evaluation survey (40 points) was conducted over a 5 day period in which 20 firefighters participated in four different drill stations, designed to evaluate SCBA for fit and function for the 4 manufacturers (5 vendors). The firefighters were also surveyed to evaluate communications equipment/accessories (5 points). The Technical technicians' evaluation survey (20 points) designed to evaluate the maintenance and repair criteria for SCBA was evaluated by HRFE's SCBA technicians. The criteria for Understanding/Approach/ Methodology (20 points) were evaluated by the SCBA committee comprised of senior staff of HRFE. The criteria evaluated included transition plan, warranties, adherence to specifications, training and support, understanding of the project and associated issues, innovation and the quality of the proposals.

After completion of envelope one process, all companies with the exception of Draeger Safety Canada Ltd, met the minimum technical score of 64 points out the 85 available technical points, to advance as identified in Appendix "A".

Details of the scoring of both envelope one and two are contained in Appendix "A".

Once the replacement SCBA have been received, the existing equipment will be disposed of through a call for tenders. As required, funds received from the disposal of the surplus equipment will be allocated to the Fire & Emergency Service Vehicle and Equipment Reserve (Q206). At present HRFE's Respiratory Protection Plan owns and operates 603 SCBA packs and 1207 SCBA bottles. Current market value for used SCBA is an estimate at best of \$250,000.00-\$500,000.00. The highest value proposed for trade in values by the 4 manufacturers was \$75,000.00

## **BUDGET IMPLICATIONS**

RFP in the amount of **\$4,743,424**, including net HST, is recommended to be awarded to MSA, based on the highest scoring proponent. Budget is available in the amount of \$2,400,000 from the 2010/11 Project Budget from Project No. CEJ01227, Self Contained Breathing Apparatus Replacement. Funding has been confirmed by Financial Services. The remaining \$2,400,000 will be funded through the approval of advanced capital from the 2011-12 Project Budget.

Budget Summary:	Project No. CEJ01227	
	Cumulative Unspent Budget	\$2,400,000
	Add: Advanced capital 11/12 budget	\$2,400,000
	Less: RFP No. 10-070	<u>\$4,743,424</u>
	Balance	\$ 56,576

The order will be placed in two separate orders, the first (for approximately \$2,400,000) with anticipated delivery in February 2011, and the balance with anticipated delivery in April/May 2012.

## **FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

## **ALTERNATIVES**

- 1)** Maintain the status quo, keeping our current equipment. Our SCBA have no warranty and will incur increasing maintenance costs as they age. The SCBA is older technology. There is no interoperability between urban and rural areas and or firefighters require training and fit testing on two systems.
- 2)** Retrofit our current SCBA to current standards:
  - Retrofit existing Scott SCBA to Hi Pressure (\$0 cost for retrofit)
  - Purchase new SCBA Hi Pressure Scott bottles (1128 @ 850.00 per) \$958,800.00
  - Replace our Survivair SCBA with Scott \$2,331,200.00
  - Total Cost \$3.29M
- 3)** Retrofit existing Survivair SCBA to current standards (\$500,000.00)
  - New bottles for existing Survivair (\$667,250.00)
  - Standardize current Scott SCBA to new Survivair SCBA and bottles (\$2.432M)
  - Total Cost \$3.665M

## **ATTACHMENTS**

- a. Appendix "A" Proposal Evaluation Criteria RFP 10-070

A copy of this report can be obtained online at  
<http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date,  
or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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Original Signed

APPENDIX A  
PROPOSAL EVALUATION CRITERIA  
RFP # 10-070

Criteria	weight	MSA*	K&D Pratt Sperian	Levitt/ Scott	Mic Mac/ Scott	Draeger**
<b>1. Practical Evaluation</b> a. Face Piece b. Comfort and Fit c. Company Experience d. Cylinders e. Control Functions f. Communications	40	29.24	26.52	28.24	28.24	25.22
<b>2. Technical Evaluation</b> a. Face Piece b. Cylinders c. Back Plate/Harness Assembly d. Other	20	17.74	17.74	16.31	16.31	14.76
<b>3. Understanding the Approach &amp; Methodology</b> a. Understanding project objectives & associated issues b. Transition Plan - thoroughness of approach to the project c. Overall quality of proposal d. Innovation e. Adherence to specifications f. Manufacturers training support. g. Warranty	20	19.48	16.54	16.76	16.76	14.93
<b>4. Communications</b> a. Remote air Management b. communication equipment c. Accessories	5	4.38	3.48	3.40	3.4	3.32
<b>5. Sub total Technical, 75 %</b> 85 pts= 64pts	85	70.84	64.28	64.71	64.71	58.23
<b>6. Cost (including (net HST)</b>  <b>Base cost with options ( use to calculate score for cost evaluation)</b>	15	15.00	14.73	14.26	14.23	- Cost proposal not opened
<b>7. Total</b>		85.84	79.01	78.97	78.94	-

\* Recommended

\*\* Minimum technical score not met, cost envelope not opened.

Cost calculation revised Nov. 29, 2010 to reflect adjustment regarding clarification for Mic Mac (Scott) calculated costs for options and 5 year warranty.