



CITY COUNCIL AGENDA ITEM

Date: January 31, 2017

To: Brian Kischnick, City Manager

From: MaryBeth Murz, Purchasing Manager
David Roberts, Fire Chief
Peter Hullinger, Staff Lieutenant

Subject: Bid Waiver – Exhaust Removal System – Fire Station #4

History

- The National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA) discovered years ago that the exhaust carcinogens and particulates from diesel vehicle exhaust was harmful to the health of firefighters within fire stations.
- Currently, all six Troy fire stations have a vehicle exhaust removal system for every apparatus in order to limit the exposure to the firefighters from diesel exhaust. The current removal system attaches to each individual vehicle's exhaust pipe, but if not connected, it does not provide proper exhaust removal. This current system requires firefighters to manually attach the system to the exhaust every time an apparatus is parked in the station. Occasionally, however, this is not done and so the next time the apparatus is started, a large amount of exhaust is discharged into the building. Another issue with our current system is that the removal tube attaches and holds onto the exhaust pipe via air inflation. If the air compressor fails or the truck is not parked in the proper spot, the tubing becomes disconnected and does not work.
- For the new Fire Station #4, research was conducted for options of exhaust removal in the fire station bays to protect the firefighters. The main focus included three criteria – ease of operation; exhaust effectiveness; and long term ownership cost. The system that appeared to be the best and that met all three criteria was the AIRVAC 911 Engine Exhaust Removal System. This system is different than our current system in that it does not attach to each individual truck; it does not require firefighter interface; it provides better protection; and it has a lower cost of ownership.
- The AIRVAC 911 system will have five units that hang from the ceiling and will not be attached to any of the vehicles. When the apparatus start or the bay doors open, the units will automatically turn on and filter all the air in the bay. Further protection is provided in that the system can be activated manually to filter the air. This cannot be done with the current system.
- Ownership cost should be considerably lower in that the filters are the only part that needs replacing. This system meets NFPA 1500, OSHA and NIOSH standards for this requirement.

Purchasing

The bid process is waived because AIRVAC Air Vacuum Corporation of Dover, NH, is the sole manufacturer and distributor for this equipment. A letter from the AIRVAC Air Vacuum Corporation is attached.

Financial

Funds are available for this purchase in the Fire Station #4 FFE account.



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Recommendation

City management recommends that the bid process be waived and a contract be awarded to *AIRVAC Air Vacuum Corporation of Dover, NH* for the purchase of the AIRVAC 911 Engine Exhaust Removal System for the new Fire Station 4 in the amount of **\$22,413.00**, as detailed in the attached quotation.

PRICE QUOTATION – NEW STATION

Lt. Peter Hullinger
Troy Fire Department
500 W Big Beaver
Troy, MI 48084

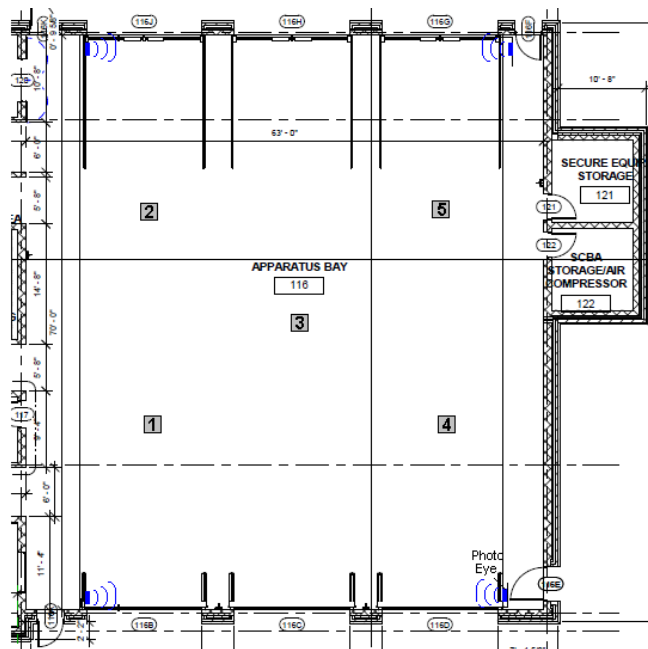
DATE: 1/13/2017
PHONE: 248/524-3417
FAX:

DESCRIPTION	QUANTITY	UNIT COST	TOTALS
AIR VAC-911 EXHAUST REMOVAL SYSTEM - Single Ph. 115V	5	\$3,399.00	\$16,995.00
AIR VAC-911 FILTER PACK (4-Stage Filter Pack, "Main Filters")	5	\$375.00	\$1,875.00
AIR VAC-911 FILTER GAUGE (Min. one per building section)	1	\$115.00	\$115.00
UL 508A CERTIFIED CONTROL PANEL - AVEC-6C/T2	1	\$1,199.00	\$1,199.00
ACTIVATION PACKAGE - PB30TK 200' PHOTO EYE (set) & BI-FOLD DOOR SWITCH ACTIVATION	2	\$235.00	\$470.00
	6	\$48.00	\$288.00
PREFILTERS (12 Per Box/Case)	12	\$8.00	\$96.00
*ESTIMATED SHIPPING AND HANDLING	5	\$275.00	\$1,375.00
*"Non-Schedule Item"			\$22,413.00

MADE IN THE USA

- ♦ **FREIGHT:** FOB Origin, ♦ **TERMS:** 1/2 Payment with the order & final payment prior to release. ♦ **Lead-Time** 8 to 10 weeks.
- ♦ Buyer is responsible for all permit fees, State/local licensing fees and applicable taxes related to the purchase of product, shipping and installation or must provide all necessary tax-exempt certificates; state, local and/or county to Air Vacuum Corporation. ♦ **Please contact your sales rep for installation information and pricing.** ♦ Governmental Purchases please consult your sales rep for GSA price list.

The AIRVAC 911™ System is Provided With a FIVE YEAR WARRANTY On ALL Components (excluding consumable filters)



This quotation has been prepared By: Thomas J. Vitko Date: 1/13/2017
Quotation Prices are valid for 90 calendar days from quotation date.



The World Leader In Engine Exhaust Removal
Systems for the Fire and EMS Industry

PROPOSAL – AIRVAC 911® Multi-Directional (Horizontal & Vertical) Air Flow Exhaust Removal System

THE SALE OF **AIRVAC 911®**, ENGINE EXHAUST AIR FILTRATION SYSTEM, BY AIR VACUUM CORPORATION OF DOVER N.H., FOR REMOVAL OF HAZARDOUS EMISSIONS FROM FIRE, RESCUE, TRUCKING, AND OTHER HEAVY EQUIPMENT FLOOR AREAS.

THIS QUOTATION HAS BEEN PREPARED FOR: 1/13/2017



Contract Holder

Lt. Peter Hullinger
Troy Fire Department
500 W Big Beaver
Troy, MI 48084

SPECIFICATIONS

MODEL: AIRVAC 911®, VERTICAL AIR FLOW DESIGN, CEILING HUNG, RE-CIRCULATING AIR FILTRATION SYSTEM. MANUFACTURED BY: AIR VACUUM CORPORATION, 6 FARADAY DRIVE, DOVER, NH 03820.

FILTRATION: “4-STAGE” FILTER PACK. ALL FILTERS ARE INDUSTRY STANDARD SIZED, UL TESTED & CERTIFIED.

PRE-FILTER (STAGE 1): 24" X 24" X 1". 3-PLY POLYESTER CONSTRUCTION. TWO LAYERS OF 16/40 DUAL DENIER POLY FIBERS WITH A FINAL DUST CATCHING ADHESIVE LAYER. SELF-SEALING FILTER WITH PRE-INSTALLED INTERNAL HEAVY GAGE WIRE FRAME. PERFORMANCE BASED ON A.S.H.R.A.E. 52.1-1992 TEST METHOD. CLASSIFIED AS A UL CLASS 2 FILTER, ACCORDING TO UL STANDARD 900 AND CAN 4-S111.

MAIN MEDIA FILTER (STAGE 2): 24" X 24" X 6". “**HEPA MAX 3000**” HIGH EFFICIENCY PARTICULATE AIR FILTER. DOP TESTED WITH 0.3 MICROMETER SIZED PARTICLES TO HAVE A **MINIMUM EFFICIENCY OF UP TO 95% AND EXCEEDS THE MAXIMUM EFFICIENCY OF 98% ASHRAE 52.1 TESTED FILTERS**. CONSISTS OF A PLEATED MEDIA PACK ENCLOSED WITHIN A GALVANIZED STEEL FRAME ASSEMBLY. ULTRA-FINE FIBERGLASS MEDIA FORMED IN A SERIES OF PLEATS SEPERATED BY CORRUGATED ALUMINUM DIVIDERS TO MAINTAIN UNIFORM SPACING BETWEEN EACH PLEAT FOR OPTIMAL AIRFLOW. CLASSIFIED CLASS 2 ACCORDING TO U.L. STANDARD 900 AND IS CLASSIFIED MERV 16 IN ACCORDANCE WITH ASHRAE STANDARD 52.2. FOR INSTALLATION SAFETY, TOTAL WEIGHT NOT TO EXCEED 16 LBS.

GAS-PHASE EXTRACTOR (STAGES 3&4): ONE 24" X 24" X 4", “**MULTISORB 3000**” BLENDED GAS PHASE EXTRACTOR. 50/50 RESPIRATOR GRADE ACTIVATED CARBON GRANUALS EFFECT FOR REMOVAL OF HIGH WEIGHT MOLECULAR GASES WITHIN DIESEL EXHAUST (VOC’S, HYDROCARBONS, BENZENE, OCTANE, METHANOL AND MORE) AND POTASSIUM PERMANGANATE FOR REMOVAL OF LIGHT WEIGHT MOLECULAR GASES (*SULFUR DIOXIDE, NITROGEN DIOXIDE, FORMALDEHYDE AND MORE*). FILTER IS CONSTRUCTED WITHIN A 24ga METAL FRAME WITH INTERNAL “HONEYCOMB” CONTAINMENT STRUCTURE. 50/50 BLEND EQUATES TO 28+/- LBS OF CARBON. FOR INSTALLATION SAFETY, TOTAL WEIGHT NOT TO EXCEED 30 LBS.

CABINET CONSTRUCTION: 18 & 16 GAUGE, ALL WELDED STEEL CONSTRUCTION. 25" X 26" X 28" CUSTOM GRAY POWDER COAT PAINT FINISH. TWO HINGED ACCESS PANELS: ONE, TO THE FILTER BANK AND THE OTHER TO THE MOTOR/BLOWER UNIT. A “DWYER” MAGNEHELIC STATIC PRESSURE GAGE, ALLOWS USER TO VISUALLY CHECK ON THE STATUS OF THE FILTER BANK. **FOUR HORIZONTAL & ADJUSTABLE AIRFLOW GRILLS**. “QUICK LATCH” FILTER COMPARTMENT WHICH IS CAPABLE OF HOLDING UP TO 15" OF FILTRATION!

ELECTRICAL: 3/4 H.P., 1725 RPM, 115 VOLT SINGLE PHASE ELECTRIC MOTOR, 13.6 F.L. AMP., RESILIENT MOUNT, AUTOMATIC THERMAL PROTECTION. ELECTRIC MOTOR, RESILIENT MOUNT. ALL MOTORS ARE UL APPROVED.

BLOWER: CONTINENTAL CENTRIFUGAL IMPELLER AND FUNNEL CONE. NON-METAL & CHEMICALLY RESISTANT.

AVEC CONTROL PANEL: UL 508 CERTIFIED CUSTOM “AUTOMATIC VEHICLE EXHAUST CONTROL”, MULTI-CIRCUIT AUTOMATIC RESET TIMER CONTROL. TWO CIRCUIT CONFIGURATIONS RATED AT 20 AMPS PER. TIMING RANGE OF .1 TO 120 MIN. ENCLOSED WITHIN A NEMA-4 RATED ENCLOSURE, NECESSARY FOR APPLICATIONS WHERE WATER IS PRESENT (WASHING OF VEHICLES). MANUAL THREE POSITION SWITCH FOR: AUTO MODE, SYSTEM OFF & SYSTEM RUN OVERRIDE. LED “OPERATING” LIGHT.

AUTOMATIC ACTIVATION SWITCHES: (SEE ENCLOSURES) PHOTO ELECTRIC EYES ACTIVATE SYSTEM UPON VEHICLE MOVEMENT (OUTDOOR RANGES OF UP TO 200') AND MOMENTARY DRY CONTACT OUTPUT RELAYS VIA BI-FOLD DOOR CONTROLLERS (ONE PER OVERHEAD DOOR).

INSTALLATION: (OPTIONAL, NOT INCLUDED WITHIN PROPOSAL) PLEASE ASK YOUR SALES REP FOR ESTIMATES AND INSTALLATION INFORMATION.





The World Leader In Engine Exhaust Removal
Systems for the Fire and EMS Industry

Friday, January 13, 2017

Lt. Peter Hullinger
Troy Fire Department
500 W Big Beaver
Troy, MI 48084

Dear Lt. Hullinger:

This letter is to confirm our conversation regarding the availability of the AIRVAC 911® exhaust removal system for Fire & EMS Facilities.

The vertical airflow AIRVAC 911® System is manufactured and distributed solely by the Air Vacuum Corporation of Dover, New Hampshire. To the best of our knowledge there are no other manufacturers within the industry, selling or distributing, this type of exhaust removal system.

Thank you again for your interest, and please feel free to contact us if you have any additional questions.

Sincerely,

Sara Scialo
Regional Sales Manager
800-540-7264
Email: sales@airvacuumcorporation.com



GS-07F-0437M



MEETS NFPA 1500 9-1.6, OSHA, NIOSH, FEMA & MORE