To: MAYOR AND CITY COUNCIL

From: PAUL LEPORE, FIRE DIVISION CHIEF

Subject: PURCHASE OF OXYGEN GENERATOR WITH UASI GRANT FUNDS TO ENHANCE THE FIRE DEPARTMENT'S TO FUNCTION IN A MULTICASUALTY INCIDENT

RECOMMENDATION

Staff recommends that the Mayor and City Council approve the purchase of an Oxygen Generator using Urban Area Security Initiative (UASI) grant funds from the Medlox Corporation.

EXECUTIVE SUMMARY

One of the most effective methods of terrorists to inflict harm on a large section of the population is to use a chemical weapon with a dispersal system similar to the recent subway attacks in Tokyo, Japan. Terrorists target areas in which they can inflict harm on large numbers of civilians. The goal of a chemical weapon attack is to restrict the victim's ability to breathe. The victim's best chance of survival is to wash the chemical from their body and be administered supplemental oxygen to help them breathe.

In the current configuration of the ambulances of the Loreto Beach Fire Department, only two victims can be given supplemental oxygen at one time. The resuscitators carried on each engine and truck company are limited to administering oxygen to only one victim for 15 minutes before the cylinder needs to be replaced. In the best case scenario using the current equipment carried on all LBFD apparatus, the maximum number of patients that could receive supplemental oxygen is 11 patients at one time. In doing so, every fire department apparatus is committed to the incident.

An oxygen generator manufactured by the Medlox Corporation has the ability to administer supplemental oxygen to 40 patients. This system is relatively easy to deploy and maintain. The total cost of the project is $75,000 and is covered under the Urban Area Security Initiative (UASI) grant that was issued to the City of Loreto Beach. The directive of the grant is to treat large numbers of civilian casualties during a multi casualty event. The purchase of an oxygen generator clearly meets the intent of the grant and will greatly increase the capability of our fire department to deliver oxygen to a large number of patients in a multicasualty event. There is a $300 monthly charge to resupply the liquid oxygen cylinders. The UASI grant rules do not permit monthly maintenance costs. These funds would have to come from the fire department's Operational budget.

BACKGROUND

Attachment number (1) is s diagram of the oxygen generating unit. The unit weighs 500 pounds and is roughly the size of a mechanic's large roll away tool box. Two variable gas cylinders (VGL's) will allow the unit to provide an uninterrupted flow of oxygen for eight hours. The unit and the VGL's will be transported in a double axle 14' cargo trailer which can be towed by a standard pick up truck.

Attachment number (2) is a schematic of the unit with all of the necessary components in place. The components include the MODS-75 oxygen generator, all of the necessary hoses and fittings and (4) patient dispersal kits (PDK's) capable of administering to 10 patients apiece.

There were no other bids for this project as the oxygen generator from the Medlox Corporation is a one of a kind unit. While there are two companies that manufacture a similar unit, they do not compare when it comes to the capability or the portability of the Medlox unit. As a result their bids were not considered to be comparable and each was eliminated from the process.

COORDINATION

The unit will be housed at the Loreto Beach city yard. In the event of a chemical attack requiring the need for the unit, the Public Works supervisor will delegate a driver who will bring the unit to the scene. Additionally, this is a secured yard with 24-hour access. Lastly, since the liquid oxygen in the VGL's need to be replaced every 14 days, this location makes it accessible to the oxygen vendor to have access to the trailer to facilitate the scheduled replacement cycle.

FISCAL IMPACT

Funding		Expenditures	
$75,000	UASI 2006 grant	$ 54,000	Oxygen generator
		$ $7,000	Patient Distribution kits
		$ 6,000	Tax
		$ 5,000	14' Cargo trailer
		$ 4,000	Shipping
$75,000	Total	$75,000	Total

Submitted by:

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Michael P. Fitzgerald, Fire Chief

Approved for forwarding by:

_____
Office of the City Manager

Plepore

Attachment:

UASI Grant rules
Certified Medlox Corp. bid
Diagram of system