



## **For Immediate Release:**

Contact Gerard Russell  
The MedLox Group  
[www.medlox.com](http://www.medlox.com)  
or 314.832.8077 for details  
December 2006

Essex  
Industries,  
Inc.

### **THE MEDLOX GROUP CREATES “MODS” FOR MASS INCIDENT, MULTI-PATIENT OXYGEN THERAPY DEMANDS**

**SAINT LOUIS, Missouri** – The MedLox Group of Essex Cryogenics, a subsidiary of Essex Industries, Inc., is pioneering a new, vital technology to produce adequate EMS oxygen response and therapy to mass incident, multi-patient situations with “MODS.”

7700 Gravois  
Avenue

The MODS, or Mass Oxygen Distribution System, is a large-volume oxygen distribution systems all wrapped up in a push around cart [images are separately provided]. At the heart of the MODS oxygen distribution system is a 75-Liter Liquid Oxygen (LOX) storage vessel that provides an incredible 450 LPM of gaseous oxygen flow for patients during a mass injury incident. This is a remarkable supply of oxygen for up to 70 patients for 2 to 2-1/2 hours!

Saint Louis,  
Missouri 63123

ph.314.  
832-4500

In the installation to the Toledo, Ohio Fire Department the MODS was conveniently housed within an easily maneuverable trailer and contained:

fax.314.  
832-1633

- The MODS with a 75-Liter oxygen distribution converter system
- Three easy-to-carry Patient Distribution Kits (PDK) providing system-to-patient oxygen supply, hoses, gauges, individual oxygen flow control valves and connections for up to 10 patients per kit
- One 100-foot oxygen supply hose reel (for easy connection between the 75-liter oxygen converter and the oxygen splitter to the PDK's)

www.  
essexind.  
com

MODS addresses several issues that were inherent and desperately needed in multiple-patient rescue efforts:

1. **MODS can carry more oxygen:** MODS can store 64,500 gaseous liters in liquid form. LOX then safely expands exponentially as it is warmed to a gaseous state. This allows the MODS to carry more than three-and-a-half times its volume in the same size container as a high-pressure oxygen tank. In addition, the MODS trailer is designed and outfitted with storage areas for additional EMS equipment.
2. **MedLox's "Nurse Tank" brings oxygen refilling to the field:** With the separately towed Nurse Tank, triage personnel can safely refill the MODS oxygen delivery converter time and again onsite at long triage or remote hospital scenarios without having the burden to requisition and replenish heavy and multiple high-pressure oxygen tanks.
3. **MODS is a safer form of oxygen delivery:** Liquid Oxygen is stored at a very low pressure compared to the potentially volatile high-pressure gaseous oxygen tanks.
4. **MODS is a very maneuverable and flexible oxygen delivery systems:** MODS can supply oxygen to multiple patients at once. With the portable PDK's (which are small and lightweight oxygen supply control centers) and the ample and lengthy oxygen supply hoses, the MODS can reach isolated and tight surroundings patient locations.
5. **MODS is a more practical form of oxygen delivery to multiple patients:** Imagine a mass incident triage setup where 70 patients require oxygen therapy as part of their rescue... Your choice: Dozens of heavy, high-pressure oxygen "H" cylinder tanks littering and obstructing the triage center or one MODS protected in a trailer up to 700 feet away from the triage area with the ability to address 70 individual patient oxygen flow requirements for 2 to 2-1/2 hours. In addition, the more high-pressure oxygen

delivery points you establish, the greater the number of oxygen delivery failure points you create.

The first-ever MODS was recently delivered to the Toledo, Ohio Fire Department. The MedLox Group provided “hands on” 2-day training to over 10 Ohio area fire department officers at the “Train-the-Trainers” Certification Program. The MODS and Nurse Tank systems will support regional mass casualty events thru the Toledo-Lucas County Metropolitan Medical Response System (MMRS).

“The MedLox Group produced a Mass Oxygen Dispensing System (MODS) and Nurse Tank trailer system using funding from the Toledo/Lucas County Metropolitan Medical Response System (MMRS) Program,” stated Battalion Chief Gregory B. Locher of the Toledo Fire / Rescue Special Operations Bureau.

Funding for this program and others has been sourced in whole or part through the U.S. Department of Homeland Security (DHS). One of DHS’s initiatives is to improve national preparedness and response with greater Federal assistance for our nation’s First Responder Community. The budget includes \$3.6 billion for grants, training, and technical assistance administered by the Office of State and Local Government Coordination and Preparedness (SLGCP). This funding will support state and local agencies as they equip, train, exercise, and assess preparedness for emergencies regardless of scale or cause.

“The Toledo/Lucas County MMRS intends to use this system in a variety of venues including mass care/alternate care facilities, mass causality incidents, a partial redundant oxygen source for hospitals in the Northwest Ohio region, and any other incident requiring a high volume medical

grade oxygen source. The Toledo/Lucas County MMRS found the MODS design from MedLox to be well thought out and constructed. During the prototype stage and prior to completion, MedLox in cooperation with Toledo/Lucas County MMRS identified several changes to the final production model. The support from the MedLox Group throughout the project was excellent and professional in every manner, including the training even after the deliver of the MODS trailer and nurse tank,” added Battalion Chief Locher.

According to the DHS website ([www.dhs.gov/xnews/releases/press\\_release\\_0613.shtm](http://www.dhs.gov/xnews/releases/press_release_0613.shtm)), President George W. Bush’s 2006 budget request includes a total of \$41.1 billion for the Department of Homeland Security. This is an increase of seven percent over the enacted FY 2005 funding.

“With a staff of engineers, technicians, program folks, production staffers, inspection\quality workers, procurement and various manufacturing folks, we completed the MODS and Nurse Tank projects on time, under budget and per the customer’s requirements,” boasted Tim Bannister, Vice-President of Operations at Essex Cryogenics, adding “It has been a tough chore given our size, workloads and employee numbers, but it happened because we are a force of one, together on a mission!”

MedLox is a subgroup of Essex Cryogenics of Missouri, Inc. or Cryo, as they’re known. Cryo is one of only a select few suppliers of Liquid Oxygen (LOX) life support systems to crewmembers of our nation and allies’ defense. Cryo’s innovative design of the 5, 7, 10, 15, 25, and 75-liter, patented, double-walled vacuum liquid oxygen (LOX) spheres supply controlled LOX to emergency ground vehicles, fixed wing and rotor aircraft. Cryo’s Portable Therapeutic Liquid Oxygen Converter Systems (PTLOX & NPTLOX, the next generation of portable LOX systems)

provides respiratory protection for up to 3 and 6 patients respectively at a time. Mobile air rescue squads in the Air Force and ground MASH units design these systems for their all-in-one design and easy maneuverability. Essex also has 50-Gallon LOX Storage Carts for the flight line and 400-Gallon LOX Storage and Delivery Systems, Drain Tanks, Vent Valves, Quick Disconnects, Filler Valves, and a variety of portable cryogenic tanks.

Cryo is a subsidiary of Essex Industries, Inc. Essex Industries is a flexible organization of distinct companies with the ability to design, engineer, develop, manufacture, test and quality-inspect a variety of vital components for military, aerospace, commercial, private and sport aircraft, construction equipment, fluid power, emergency medical, home healthcare, automotive and general industries.

# # #



## TYPICAL MODS INSTALLATION DIAGRAM

