



Source: EPA Press Advisory: 10 August, 2000

### **3. Four Convicted in Louisiana Methyl Bromide Case That Killed Mother and Sickened Child**

Amtek of La. Inc., and its president Robert Case, both of Baton Rouge, La., and Sims Brothers Construction Inc. and its site superintendent, Mark Jerkins, both of Pensacola, Fla., were convicted on July 31, in the U.S. District Court in Baton Rouge for violating the Resource Conservation and Recovery Act. In May 1997, Sims Brothers hired Amtek to demolish buildings on a construction site in Baton Rouge. During the demolition, two 200-pound cylinders marked "poison," containing the highly poisonous rodenticide methyl bromide, were found at the site. Case and Jerkins removed the cylinders from the building and then stored them in an open area at the construction site. An Amtek employee removed the cylinders believing that they contained butane or propane and gave them to his cousin Edith Rome in Albany, La. to be stored in her home. Ms. Rome, 32 years of age, died of methyl bromide poisoning from leaky valve. Her son Christopher became seriously ill and required emergency medical treatment. The case was investigated by EPA's Criminal Investigation Division, the Louisiana Department of Agriculture with assistance from the Louisiana Department of Environmental Quality and the La. State Police. It was prosecuted by the U.S. Attorney's Office for the Middle District in Baton Rouge.

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### **4. Modine Displays CO<sub>2</sub> Air-Conditioning System at SAE Automotive Alternative Refrigerant Systems Symposium**

SCOTTSDALE, Ariz.--(BUSINESS WIRE)--July 10, 2000--Modine Manufacturing Company will display and demonstrate the operation of a vehicular air-conditioning system that uses environmentally friendly carbon dioxide (CO<sub>2</sub>) as a refrigerant. The prototype system is being introduced at the 2000 Society of Automotive Engineers (SAE) Automotive Alternate Refrigerant Systems Symposium July 11-13, 2000, at the Resort Suites Hotel in Scottsdale.

Modine installed the air-conditioning system on a BMW 328i car. "The design goals were to demonstrate a fully functioning CO<sub>2</sub> vehicular air-conditioning system with equal or better performance than the existing R-134a system, a lofty goal as the BMW is known to have a very high-performance R-134a system," said Steve Memory, Manager of Heat-Transfer Research at Modine. R-134a is an interim substitute replacing CFC (chlorofluorocarbon) refrigerants, which are implicated in the destruction of the ozone layer. Modine's new heat exchangers had to be direct, drop-in replacements for the existing components, having the same size and volume.

During the Symposium, the CO<sub>2</sub>-system-equipped vehicles will soak for up to an hour in the noon-day sun, reaching interior temperatures of up to 160o Fahrenheit. After lunch, selected participants will qualitatively evaluate the cooling performance by taking the vehicles on a pre-selected course that includes idle, city, and highway driving. Certain quantitative measurements, including time to cool down, final register and head-level temperatures, and quality of air movement will also be taken.

"This Symposium gives Modine the opportunity to demonstrate not only our expertise in the development of high-performance heat exchangers, but also our ability to do complete air-conditioning system design," said Memory.

Initial testing and preparation took place at Modine's Technical Center in Racine, Wis. The two key heat exchangers in the system, the gas cooler (replacing a conventional air-conditioning condenser) and the evaporator, were tested in a split room, where the air temperature and velocity for each heat exchanger could be simulated as part of a complete system. The split-room test environment is the most realistic way to simulate actual operating conditions, because the gas cooler is installed under the hood of the vehicle while the evaporator is located under the dashboard in the passenger compartment. "In the Racine Technical Center, we were able to quantify various heat-exchanger designs and experiment with a number of control methodologies," said Memory.

Vehicle preparation took place at Modine Climate System Division's wind tunnel and technical support facility in Harrodsburg, Ky. Employees there conducted baseline wind tunnel tests of the R-134a system before removing it from the car. Then, they installed and wind-tunnel-tested the new, CO<sub>2</sub> system. "Initial results are very promising," said Sam Collier, manager of engineering for Modine's Climate Systems Division in Harrodsburg. "With a few additional refinements at idle, we feel very confident we can reach and surpass the goals we set," he added.

Modine is a world leader at solving heating and cooling problems in vehicles, buildings, and off-highway and industrial equipment. With headquarters in Racine, Modine has annual sales of more than \$1 billion and has 8,300 employees worldwide. Modine can be found on the Internet at <http://www.modine.com> Contact: Modine Manufacturing Company, Cynthia Mackin-Goetsch, 262/636-1494

