



# U. S. Chemical Safety and Hazard Investigation Board

## RECOMMENDATIONS STATUS CHANGE

### SUMMARY

<b>Report:</b>	MFG Chemical Inc. Toxic Gas Release
<b>Recommendation Number:</b>	2004-09-I-GA-R9
<b>Date Issued:</b>	April 11, 2006
<b>Recipient:</b>	City of Dalton
<b>New Status:</b>	Closed – Acceptable Action
<b>Date of Status Change:</b>	March 24, 2017

#### **Recommendation Text:**

*Revise fire department and police department procedures and training to clearly define facility and evacuation zone access control responsibilities when hazardous chemicals are involved or suspected in an emergency.*

#### **Board Status Change Decision:**

##### A. Rationale for Recommendation

On April 12, 2004, MFG Chemical (MFG) was attempting to make a first full-scale production batch of triallyl cyanurate (TAC) at its Callahan Road Plant in Dalton, Georgia. During the operation, a runaway chemical reaction over-pressurized the 4000-gallon reactor and caused the release of highly toxic, flammable allyl alcohol and toxic allyl chloride into the nearby community. More than two hundred families were evacuated. One employee received chemical burns and 154 people, including 15 police and ambulance personnel, required decontamination and treatment for chemical exposure.

CSB's investigation identified a number of shortcomings in the City of Dalton's emergency preparedness. Notably, the Dalton Fire Department (DFD) did not direct all unprotected emergency response personnel to remain a safe distance away from the advancing toxic vapor cloud. Instead, the Fire Department Incident Commander (IC) permitted inadequately protected and insufficiently trained MFG employees to reenter the building. Additionally, the DFD directed Dalton Police Department (DPD) personnel to evacuate residents despite their not having appropriate protective equipment. DPD procedures also did not adequately address measures to protect personnel against toxic exposures. As a result, the responding MFG employees and police officers required treatment for chemical exposures. The CSB made a recommendation to revise the fire department and the police department procedures to better define their specific responsibilities in order to ensure better coordination during emergencies.

##### B. Response to the Recommendation

The DPD updated procedure "GO92-6.2 Hazardous Material Incident Response" and created a new "Emergency Evacuations" procedure.

The revised "Hazardous Material Incident Response" clarifies that the incident command system directs DPD officers away from the controlled access zone. The procedure establishes important guidelines including:

- evacuation of nonessential personnel,
- coordination with the DFD by stating that DFD will direct incident response and DPD will secure the perimeter,

- detailed guidance on perimeter control, including that only authorized personnel will enter the incident area through the designated staging sector, and
- ensuring that no Law Enforcement personnel will enter an area with potentially hazardous materials without proper protective equipment.

The new “Emergency Evacuations” procedure clarifies roles, authority, and provides a systematic method for evacuation which prioritizes safety for citizens and first responders. The new procedure:

- establishes an incident command system,
- delegates an incident involving a fire or hazardous materials spill under the control of the DFD,
- clarifies rules and responsibilities for each person in the incident command including the determination of a safe location for evacuees and reiterating guidelines for perimeter control that align with the procedures in the “Hazardous Material Incident Response” procedure.

Overall, these two revised procedures address many of the gaps in emergency response identified during the MFG incident response, including a lack of personal protective equipment for responding police officers, the unauthorized re-entry of MFG personnel, and an uncoordinated incident command.

DFD also updated their Standard Operating Guideline (SOG) FO-10, “Operations at Hazardous Materials Incidents.” The revised operating guidelines make several notable changes to better coordinate with the DPD and address the gaps in emergency response identified during the MFG incident response including:

- adding Law Enforcement to the “Organizational Phase” of response stating that DPD will follow the hazardous materials procedures described above and shall be responsible for securing the perimeter,
- clarifying the roles and responsibilities of each person in the incident command system including specifying who can and cannot enter the “hot” and “warm” zones of the incident and who must stay in the “cold” zones, and
- ensuring that the “hot” zone (exclusion zone directly around the hazardous materials release) only includes entry by necessary technicians upon approval of incident commander.

The DFD also trained 21 Hazardous Materials Technicians and certified all other employees to the operations level. Both technician and operations level employees participate in hazardous materials training. The technicians also participate in quarterly training which consists of two instructional sessions and two hands-on drills of a simulated hazardous materials event.

### C. Board Analysis and Decision

The DFD and DPD have updated and coordinated their emergency response procedures to address the gaps in emergency response identified during the response to the 2004 MFG incident in accordance with the intent of this recommendation. As the City of Dalton has met the intent of this recommendation, the CSB voted to designate **Recommendation No. 2004-09-I-GA-R9** as “**Closed- Acceptable Action.**”