GREENVILLE COUNTY
SHERIFF'S OFFICE

GO - 209

GENERAL ORDERS

HAZARDOUS MATERIALS

PURPOSE:

Hazardous materials are used in or pass through Greenville County almost daily by air, rail and highway. The presence of railroad switching complexes, several large trucking terminals, and three airports increases the potential for large-scale hazardous materials incidents. A hazardous materials incident could involve the evacuation of a large number of people. It is incumbent upon all Sheriff's Office personnel to be able to correctly identify an incident where a potentially hazardous material exists and to respond appropriately in dealing with an incident of this nature.
This policy provides operational guidelines and procedures to be followed in the event of a hazardous materials incident in Greenville County.

DEFINITIONS:

CHEMTEC – An acronym for the Chemical Transportation Emergency Center, provided as a public service by the Chemical Manufacturers' Association. It is designed to provide immediate information to public safety officials facing a chemical emergency.

HAZARDOUS MATERIAL – Substance or material capable of posing an unreasonable risk to health, safety, and property.

HAZARDOUS MATERIAL INCIDENT – An incident involving one or more hazardous material that may be leaking, spilling, burning, or having a potential for release that may endanger life, property, and/or the environment.

HAZMAT – Hazardous Materials Response Team staffed by firefighters specializing in hazardous materials emergencies. The expertise of a HazMat Team enables them to make quick decisions, plan strategies, and initiate remedial actions.

DANGERS ASSOCIATED WITH HAZARDOUS MATERIALS:

At a hazardous material incident, a first responder is just as endangered as a civilian. Sheriff's Office personnel, like civilians, are not equipped with protective clothing and breathing apparatus afforded firefighters. Additionally, they do not always recognize the dangers posed by hazardous materials.

DANGERS –

1. **Fires -** The hazard with a chemical or pesticide fire is that the fire itself is often not hot enough to destroy or incinerate the substance, yet the chemical is vaporized and carried upward on a thermal column of smoke. Once away from the fire, the cooler air can cause animals, and anything beneath the descending vapors to become contaminated.
2. **Explosion -** Compressed gases, liquids, and explosives are obvious explosion hazards. A particularly disastrous type of explosion is known as a "BLEVE" (blev – e) or Boiling Liquid Expanding Vapor Explosion. This is the type of explosion that caused a railroad tank car at Missisauga, Canada to rocket 2,000 feet upward. The fireball is often 1,000 feet or more in diameter, and expands outward and upward at the speed of sound. Propane is the substance most associated with BLEVE's, but most flammable liquids can cause the same reaction. BLEVE's may also occur with smaller containers of compressed gases similar to those found around houses and even small cylinders found on barbecue grills or campers.
3. **Poisoning -** Many hazardous materials kill by poisoning. Vapors may be skin irritating, while eye contact may cause blindness. Still others are neurotoxins that attack the central nervous system. Decontamination becomes extremely important in situations where a deputy is exposed to poisonous substances. Instructions given by officials on the scene or at a hospital concerning decontamination are to be followed to the letter. If ETIOLOGICAL AGENTS (infectious substances) are present, isolation, extensive medical observation, and follow-up treatment may be required.
4. **Asphyxiation and Freezing -** Leaks of hazardous gases, liquids, or vapors may act to exclude available air, and low areas may accumulate enough odorless material to kill. Certain hazardous material may be cryogenic in nature; causing temperatures low enough to freeze body tissues instantly. Liquid nitrogen is one of these materials.

HAZARDOUS MATERIALS SCENE RESPONSIBILITIES: Fire departments exercise primary control when there is fire suppression, rescue, or containment.

Sheriff's Office responsibilities:

1. Security of the area.
2. Traffic control.

Evacuation - Ordering an evacuation is the sole responsibility of the Fire Chief. The Sheriff's Office will assist the Fire Chief with evacuation at his direction.

ARRIVAL TO SCENE: The first responding personnel discovering an incident involving the release or potential release of a hazardous material is to exercise extreme caution and discretion prior to entering an exposed area. If conditions are such that personal safety would be jeopardized, personnel are not to enter the area. First responding personnel are to wait for the arrival of a properly equipped fire department HazMat Team.

If at all possible, stay at least six hundred feet (600') from a spill, and always uphill and upwind. Request a supervisor and fire department to respond to the scene.

Entering a questionable scene - Upon arrival, observe the area prior to entering and comply with the following precautions:

1. **Never** approach a container that is holding a chemical until you have seen shipping papers and a placard showing you exactly **what you are dealing with.**
2. When approaching any transportation accident involving railroad cars and trucks of any size, look for placards and labels.
3. Be sure no flares or flames are used in hazardous areas. This includes no smoking of any kind. Sparks, flames, or heat, including a hot engine, may ignite vapors.
4. **Do not** touch, drive or walk into spilled materials.
5. Keep away from visible vapor clouds, dust or smoke, and avoid inhalation of fumes, smoke or dust. Do not assume vapors are harmless because of a lack of odor.
6. If it is necessary to approach an incident location or vehicle to identify a placard, do so from upwind (wind at your back).
7. Keep out of low areas (ditches, culverts) where fumes naturally collect. Most vapors are heavier than air.
8. Move any victims to fresh air, giving artificial respiration, if necessary.

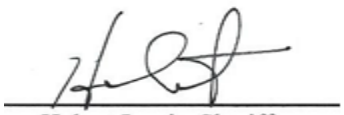
Suspected hazardous materials spill or leak:

1. Isolate the immediate scene at least six hundred feet (600') from the spill and move people upwind.
2. If the substance can be identified by placard or label, refer to the Emergency Response Guidebook from the Department of Transportation for guidance pertaining to potential danger and recommended evacuation distances.
3. Have Communications contact Chemtec.
4. Request assistance and establish traffic points to keep vehicular and pedestrian traffic out.
5. Clear the area inside the traffic points of people.
6. Wait for the HazMat Team to provide further guidance.

CONFIRMED HAZARDOUS MATERIAL SPILL –

1. A supervisor is to conduct the following: Initiate Sheriff's Office notification as per the disaster section of the Incident Command System.
2. Implement the Incident Command System. The ranking fire official on the scene is the Incident Commander.
3. Mobilize for evacuation and establish a perimeter as needed by the Incident Commander. Refer to the ICS Manual for procedure details.

The spill scene must remain isolated until the danger has passed and the hazardous material has been cleaned up. All Sheriff's Office personnel are to check with the safety officer for decontamination prior to going off-duty.



Hobart Lewis, Sheriff