MARICOPA COUNTY SHERIFF'S OFFICE POLICY AND PROCEDURES

Subject	Policy Number
HAZARDOUS MATERIALS AND WASTE	**EA-10**
	Effective Date **08-02-23**

Related Information	Supersedes
GC-22, *Critical Incident Stress Management Program* GE-3, *Property Management and Evidence Control* GJ-5, *Crime Scene Management* GJ-16, *Incident Command System*	EA-10 (04-25-18)

PURPOSE

The purpose of this Office Policy is to establish guidelines and procedures relating to the investigation of incidents involving hazardous materials.

POLICY

It is the policy of this Office to establish and maintain emergency response procedures and capabilities to respond to incidents involving hazardous materials. This Office Policy is intended to provide a tiered response to incidents involving hazardous materials which is appropriate to their magnitude and risk.

DEFINITIONS

Clandestine Drug Laboratory: Any collection of equipment and/or chemicals used to illegally manufacture, purify, synthesize, or reconstitute narcotic or dangerous drugs, as defined by Arizona Revised Statutes (ARS). These laboratories are typically operated with raw materials of unknown quality, by untrained persons, and under unsafe conditions.

Cold Zone: The area where the command post and support functions that are necessary to control the incident are located. This zone may also be referred to as the clean zone, green zone, or support zone.

Contamination: The presence, or the reasonably anticipated presence, of a hazardous substance or other potentially harmful material, on or in an item or surface.

Dosimeter: A device used to measure dosimetry, such as the Canberra UltraRadiac.

Dosimetry: The measurement of an absorbed dose delivered by ionizing radiation.

Hazardous Materials: Substances or materials in original form or as waste identified as hazardous and determined by the Secretary, U.S. Department of Transportation, the Administrator, Environmental Protection Agency, and the Director, Arizona Department of Health Services, to be capable of posing an unreasonable risk to health, safety, property, or the environment. Hazardous materials include, but are not limited to explosives, irritants, radioactive material, compressed gases, etiologic (disease) agents, reactive material, flammable liquids or solids, carcinogens, poisons or poisonous gases, toxicants, or oxidizing or corrosive materials.

Hazardous Waste: Garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, or other discarded materials, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, agricultural, or illicit drug lab operations, or from community activities which, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment, if improperly treated, stored, transported, disposed of, or otherwise managed.

Hot Zone: The area immediately surrounding a hazardous materials/dangerous goods incident which extends far enough to prevent adverse effects from the released product to personnel outside the zone. This zone may also be referred to as the exclusion zone, red zone, or restricted zone.

Incident Commander (IC)***:*** For the purposes of this Office policy, the individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Personal Radiation Detector (PRD)***:*** A type of dosimeter which measures an area for dosimetry.

Unified Command System: For the purposes of this Office policy, in incidents involving multiple jurisdictions, a single jurisdiction with multiagency involvement, or multiple jurisdictions with multiagency involvement, unified command allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability.

Warm Zone: The area between hot and cold zones where personnel and equipment decontamination and hot zone support take place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. This zone may also be referred to as the contamination reduction corridor (CRC), contamination reduction zone (CRZ), yellow zone, or limited access zone.

PROCEDURES

1. **Responsibilities of the First Responder at the Scene:** The first responder to arrive at the scene of an actual or suspected hazardous material incident shall approach the area from an upwind direction, assess the situation, direct people away from the incident, re-assess the situation, and advise the Communications Division of the incident. The situation must be evaluated, as soon as possible, to determine the level of emergency response and the number of support units necessary to control the incident. Relevant information may be found in the *Emergency Response Guidebook* (ERG), which is available in a patrol vehicle, through a shortcut icon on the Mobile Data Computer (MDC), online at https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2021-01/ERG2020-WEB.pdf, or through the ERG app. Procedures to be followed by the responder at the scene include, but are not limited to, the following:

    A. Attempting, from a safe distance, to identify the hazardous substance, the amount of material involved, the type of conveyance or storage unit used, and the name of the manufacturer or shipper.

        To identify hazardous substance, look for the following:

        1. Placards;
        2. Container labels;
        3. Shipping papers;
        4. Rail car and road trailer identification chart;
        5. Safety data sheets;
        6. Knowledge from persons on scene; and/or
        7. Emergency Response Guidebook.

    B. Obtaining additional information which may be useful includes the wind direction and speed, estimated population in the affected area, nearby water sources, and the nature of the surrounding terrain.

    C. Requesting assistance from the local fire department.

D. Establishing a cold zone as specified in the *Emergency Response Guidebook*, and providing entrance and exit routes that are upwind, for emergency and support units.

E. Providing emergency aid to the injured.

F. Preserving the scene for identification and evidentiary purposes.

G. Requesting a supervisor respond to the scene.

H. If an incident with injuries involves, or is suspected to involve, radiological exposure, the following shall apply:

1. Application of the following three basic principles of personal protection will limit exposure to responders and victims.

    a. Time: Time spent in a radiation area should be reduced by working quickly and efficiently; responders should be rotated, if necessary;

    b. Distance: Doubling the distance from a radiation source reduces the exposure rate by a factor of four; and

    c. Shielding: Not always practical in a response, but barriers such as a pumper truck can reduce exposures. Personal protective equipment (PPE) will also reduce the possibility of skin contamination.

2. The first priority in a radiation incident is rescue/lifesaving and life supporting medical treatment. Emergency medical response or emergency first aid procedures shall not be delayed if the victim cannot be moved. Victims encountered in a radiation incident may be:

    a. Exposed to radiation from an external source;

    b. Externally contaminated;

    c. Internally contaminated; and/or

    d. Injured and contaminated.

3. All persons and materials in the vicinity of the incident shall be assumed to be contaminated until positively shown otherwise.

    a. A cold zone shall be established, as soon as possible. The perimeter should be far enough from the hazard to provide safe areas within it, as specified in the *Emergency Response Guidebook*.

    b. Responders shall don multiple pairs of gloves, disposable shoe covers, and coveralls, if available.

    c. If only external exposure exists, the victim shall be moved away from the radiation source, and their injuries treated, while staying within the cold zone.

    d. Responding ambulances shall be directed to remain outside the hot zone (exclusion zone) and warm zone (contamination reduction zone). The transfer of victims from the warm zone to the waiting ambulances shall be accomplished only under the direction of emergency medical personnel.

    e. Upon leaving the hot zone, all personnel shall remove protective gear in the warm zone. All equipment, including vehicles used within the warm or hot zones, shall be left in place.

4. Notifications:

   a. The first deputy on the scene shall advise the Emergency Medical Service responders of the possibility of radioactive contamination and the suspected contaminated areas and shall request the Communications Division to notify the nearest hospital so that proper preparations can be made before arrival.

   b. During normal working hours, the Communications Division shall notify the Arizona Department of Health Services, Bureau of Radiation Control (BRC) at (602) 255-4845 and advise the incident location, receiving hospital, and the estimated time of arrival of the first victims to the hospital. After business hours, the Department of Public Safety (DPS) shall be notified at (602) 223-2212. They shall contact the BRC.

   c. If possible, radio or phone contact shall be maintained with the BRC, and the receiving hospital.

   d. Once the scene is stabilized, the Communications Division may notify the Critical Incident Stress Management (CISM) team to provide peer support.

5. Responders trained in the use of radiation detection instruments, when possible and practical, shall monitor the area and the patient with the detector window open to determine general contamination levels. Contamination should be reported to the hospital and to the BRC.

6. At the scene:

   a. Emergency responders trained in the use of dosimetry shall wear Personal Radiation Detectors (PRDs), if available. These PRDs should be checked every 15 minutes during the event.

   b. If personnel have crossed into the hot zone, they should proceed, as soon as possible, to a contamination reduction zone, where persons and vehicles shall be monitored for contamination while awaiting decontamination. This monitoring is normally conducted by the BRC.

7. Decontamination is generally conducted under the BRCs supervision.

   a. For individuals, the use of any agent other than soap and water should be avoided, except under medical supervision.

   b. Decontamination of vehicles and equipment should be accomplished only in designated areas, as specified by BRC.

I. If an incident involves a clandestine drug laboratory, the following shall apply:

1. Upon discovery of a drug lab in a residential or other habitable structure, deputies shall notify the Communications Division and immediately remove all persons from the location and secure them outside the structure. Deputies shall not attempt to reenter the drug lab location due to the chemical contamination and environmental hazards which may be present. Deputies shall not attempt to turn off power, move any chemicals, or change the state of the lab or its components in any way.

2. Deputies shall gather information regarding the alleged type of chemicals.

3. Deputies shall gather information on what items are present, such as glassware, coffee filters, tubing, solvents, or other items which may be associated with a clandestine drug laboratory.

4. At the earliest possible moment, investigators from the Special Investigations Division (SID) shall be notified of the clandestine drug laboratory, and shall respond to the lab location to assume responsibility for the investigation.

5. If the drug lab is located in a vehicle or in an open area, such as a yard or field, deputies shall make no attempt to handle or move any of the drug lab components. The area shall be secured and no entry permitted into the drug lab area.

6. If it appears that the lab is operational and "*cooking*," the supervisor shall notify the Communication Division and request the nearest fire response unit to respond to the lab site to assess the lab's explosive fire potential.

2. **Responsibilities of the First Supervisor at the Scene:** The first supervisor arriving at the scene shall assume command of the situation. The supervisor shall assess the situation and advise the Communications Division of the manpower, equipment, and outside resources needed. The supervisor shall establish themself as the Incident Commander and set up a Unified Command with the responding fire department. The supervisor shall then establish an Incident Command Post and ensure the chain of command is apprised of the situation. The supervisor shall remain in command of the scene until relieved by an appropriate command officer or the incident concludes.

3. **Cleanup Response and Responsibilities:** State or federal government agencies, or experienced firms from the private sector, may be requested to respond to the scene to assist when a situation occurs which requires specialized knowledge, equipment, or tools.

   A. Responsibility for the cleanup rests with the party responsible for the incident. Possible contamination should be minimized, in the best interest of the public, and cleanup should be expedited. The Incident Commander at the scene of a hazardous materials incident should request the appropriate emergency resources respond to minimize the spread of hazardous materials.

   B. If the responsible party refuses to accept responsibility or comply with state or federal laws, the Arizona Department of Environmental Quality (ADEQ) shall be called to identify the cleanup funds source and coordinate cleanup and disposal of the material.

4. **Assistance of other Office Personnel:** Office personnel shall not assist in cleanup or disposal activities of any kind. Office personnel shall assist in other activities as required, such as traffic control, evacuation, and perimeter security, until the conclusion of the incident. At the conclusion of the incident, all personnel shall report to the Incident Commander to coordinate the completion of any necessary reports.

5. **Assignment of Investigators:** When appropriate, the Incident Commander may evaluate the situation to determine whether an investigator shall be required to respond to the incident. The investigator shall determine whether the Arizona Attorney General's Office shall be contacted for possible prosecution.

   A. Basic scene and evidence preservation techniques should be used, as specified in Office Policy GE-3, *Property Management* and *Evidence Control* and Office Policy GJ-5, *Crime Scene Management*. If an Attorney General's Office investigator arrives, they may assume control of the investigation, including the sampling and testing of evidence, interviewing of suspects, and impounding of vehicles.

   B. Personnel at the scene may be required to assist in the investigation, and provide *Incident Report* (IR) supplements indicating their observations and actions.

6. **Other Agency Response:** Various organizations and agencies may be advised of the incident and requested to respond to the scene.

A. DPS is the designated state communications center for activities related to hazardous materials incidents and notifies appropriate state agencies to respond. In the event that a hazardous materials incident requires assistance from any state agency, the DPS duty officer shall be notified and, if the responsible party is unknown, asked to coordinate the cleanup and disposal of the material.

B. Local fire departments have advanced levels of hazardous materials handling capabilities, and may respond outside of their respective city limits, based on the size and severity of the incident, as well as the potential threat to human life.

C. The Maricopa County Department of Transportation (MCDOT) may provide heavy equipment and manpower for building dikes, diversion ditches, and barricades, and assist in effecting road closures.

D. The Chemical Transportation Emergency Center (CHEMTREC), Telephone 1- (800) 424-9300, provides immediate advice for those at the scene of a hazardous material situation. If their assistance is needed, they may be contacted by the Communications Division. CHEMTREC shall contact the shipper of the material involved for more detailed assistance and appropriate follow-up.

7. **Information about the Hazardous Material:** Accurate information about the hazardous material, such as the correct spelling of the material's generic name or type of chemical hazard, is critical. This information may be determined or obtained from placards, bills of lading, or driver manifests.

A. Fire diamonds and placards are used by the National Fire Protection Association (NFPA) and the Department of Transportation (DOT).

1. The NFPA fire diamond (Fig. 1) is used to identify hazardous contents in a fixed site or building and is divided into four sections with each section displaying a color and a number. The four colors represent a specific type of hazard as follows: BLUE for health rating; RED for flammability rating; YELLOW for instability rating; WHITE for special hazards. Each color section of the NFPA placard is marked numerically, indicating the degree of hazard, on a scale of zero to four, with four indicating the most severe hazard.

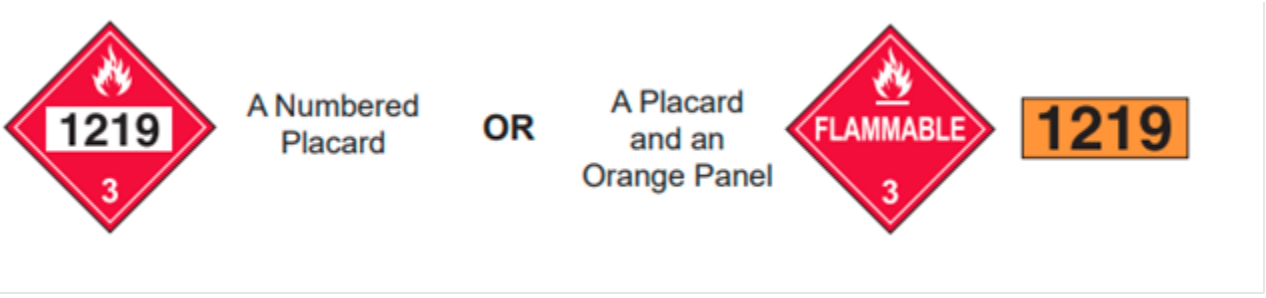
2. The DOT placard (Fig. 2), also diamond shaped, is used to mark motor vehicles transporting hazardous materials such as poisonous gas, oxygen, or explosives on a public highway. There should be a placard containing a four-digit number which identifies the material being transported. A second placard may also be visible which does not include the four-digit product identifier. The second placard indicates a secondary hazard of the material. The Communications Division can access information from the National Law Enforcement Telecommunications System (NLETS) about the chemical, such as the chemical name, personal safety precautions, handling and disposal procedures, and the public health risk involved.

3. **IMPORTANT NOTE:** Not all buildings and/or vehicles carrying or storing hazardous or dangerous materials are required to have signage or placards. Specifically, delivery trucks from large department stores carry large quantities of items such as: pool supplies, chlorine, and acid; and cleaning supplies such as: bleach, ammonia, and lye and are **NOT** required to have signage or placards on them identifying these chemicals as being transported.

B. Bills of lading and driver manifests are normally maintained in the cab of commercial vehicles, within reach of the driver, and in the engine of trains, by the engineer or the conductor.

https://link.nfpa.org/free-access/publications/704/2022?_ga=2.63591270.895365470.1664298280-1109292998.1664298280

Fig. 1



https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2021-01/ERG2020-WEB.pdf

Fig. 2