GUERNSEY COUNTY
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RESPONSE AND PREPAREDNESS PLAN

TAB 5-A

EMERGENCY CONDITION LEVELS

Response Level	Description	Contact, if needed
Level I Routine Emergency Condition	A Hazardous Materials Incident which can be controlled by the responding first response agencies and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property	Fire Department EMS Law Enforcement EMA Director Ohio EPA National Response Team CHEMTREC Media
Level II Limited Emergency Condition	An incident involving a greater hazard or larger area which poses a potential threat to life or property and which may require limited evacuation of the surrounding area.	Agencies in Level I PLUS Hospital Commissioners/Mayors Red Cross County Agencies (Health, Engineer, others) Area Schools Area Nursing Homes Citizens Facilities Public Buildings Alert EOC Staff
Level III Full Emergency Condition	An incident involving a sever hazard or a large area which poses an extreme threat to life and property and will likely require a large-scale evacuation, or an incident requiring the expertise or resources of county, state, federal or private agencies/organizations	Agencies in Level I & II PLUS Activate EOC Staff

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The following chart is intended to assist in determining the incident classification level.

Incident Level	Level One	Level Two	Level Three
Container Size	Small (pail, drum, cylinders except one-ton, packages, bags)	Medium (one-ton cylinder, portable containers, nurse tanks, multiple small packages)	Large (tank cars, tank trucks, stationary tanks, hopper cars/trucks, multiple medium containers)
Fire/Explosive potential	Low	Medium	High
Leak Severity	No or small release contained with available resources	Not controllable without special resources or "Reportable Quantities"	May not be controllable even with special resources
Life Safety	No life hazard	Local area, Limited evacuation	Large area, mass evacuation
NFPA #704	0 or 1 All Categories	2 Any Category	3 or 4 Any Category including Special Hazards
Container Integrity	Not damaged	Damaged but serviceable for handling or transfer of product	Damaged, catastrophic rupture possible
Environmental Impact Potential	Minimal	Moderate	Severe
Product I.D.	No DOT placard required ORM A, B, C, D	DOT placarded PCBs/no fire EPA Regulated waste Any unidentified substance	Poison A (gas), Explosives A/B, Organic Peroxide, Flammable Solid, Materials Dangerous When Wet, Chlorine, Fluorine, Anhydrous Ammonia, PCBs & fire, DOT Inhalation Hazard, EPA Extremely Hazardous Substances, and Cryogenics.

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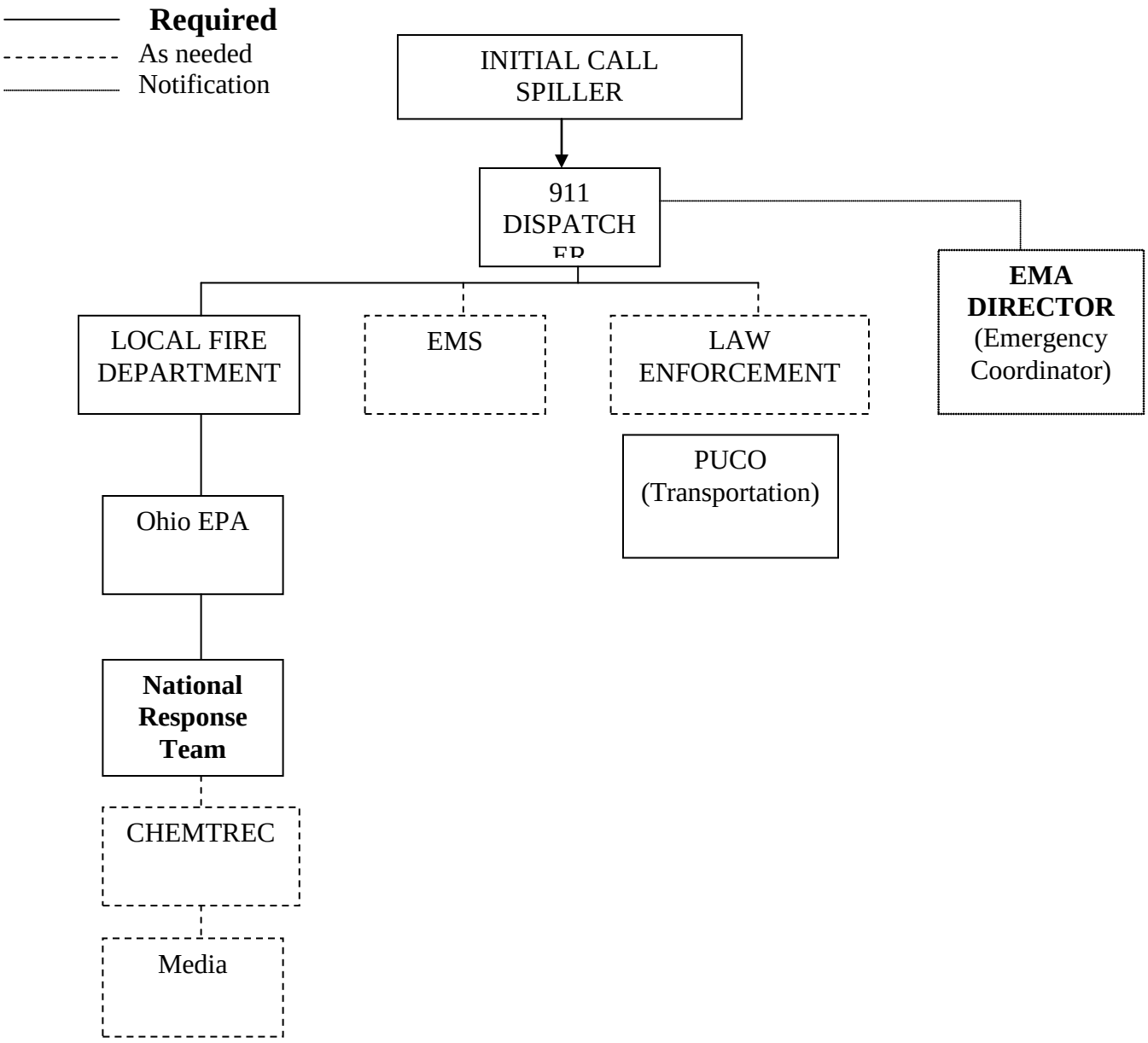
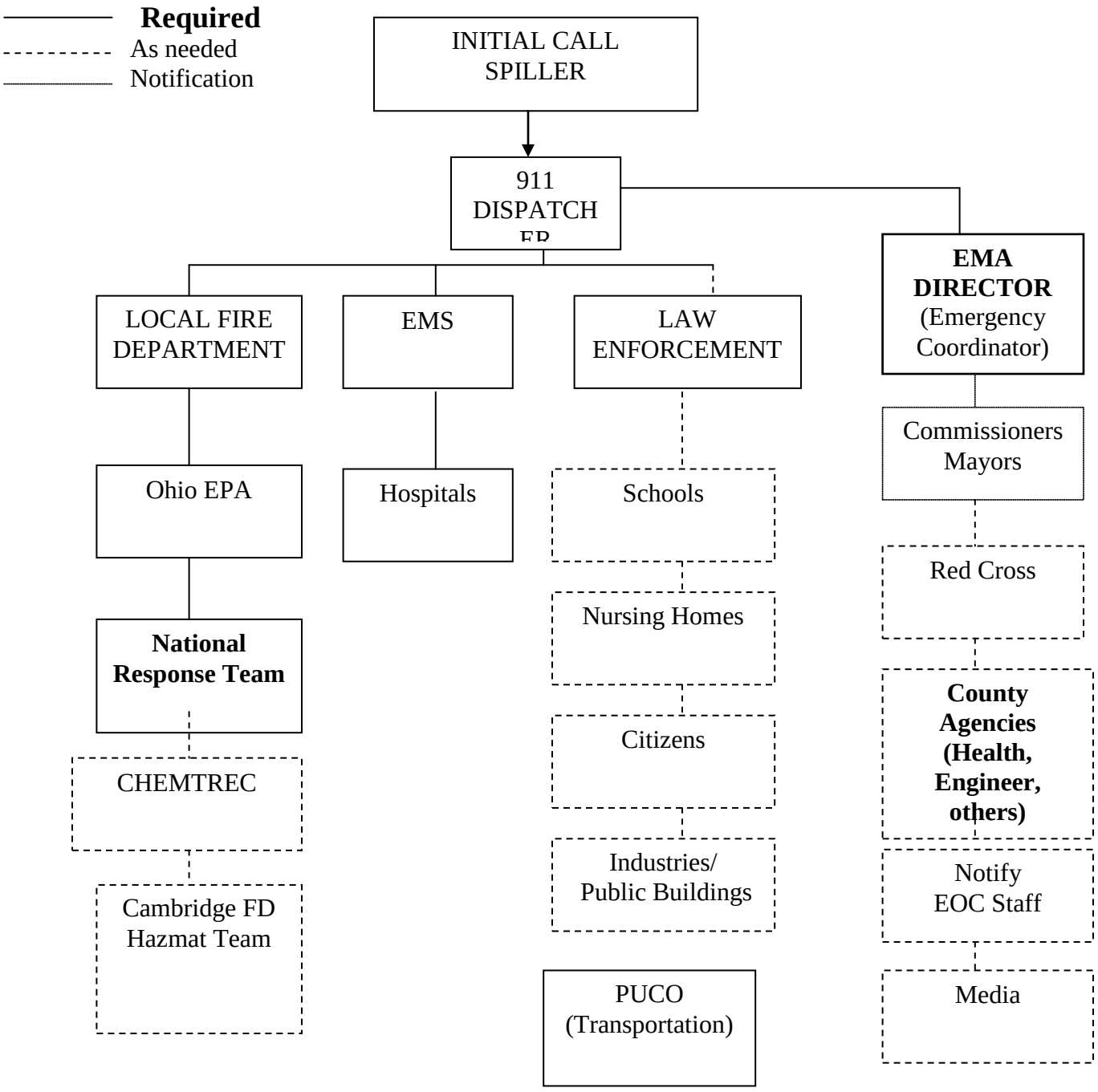
EMERGENCY CONDITION LEVEL I

NOTIFICATION REQUIREMENTS



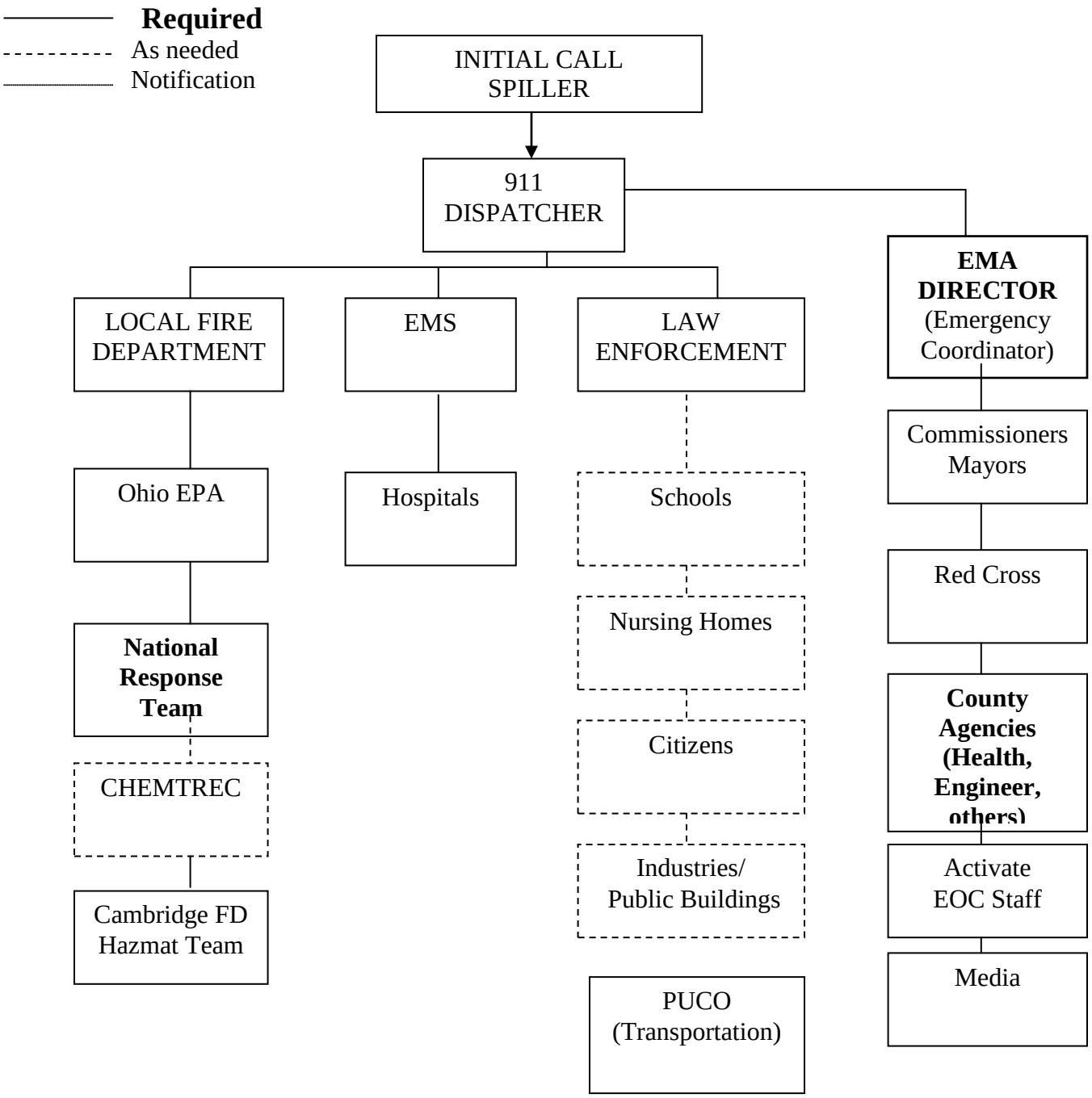
EMERGENCY CONDITION LEVEL II

NOTIFICATION REQUIREMENTS



EMERGENCY CONDITION LEVEL III

NOTIFICATION REQUIREMENTS



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TAB 5-B

COMMAND POST SETUP

The following guidelines are to assist the Incident Commander in establishing a Command Post (CP) and may be modified to fit the situation.

COMMAND POST SITE SELECTION FACTORS

1. Strategically located in relation to the incident, upwind, uphill, and upstream, in the Cold Zone. The CP may be out of sight of the incident.

2. Accessible to responding personnel.

3. Sufficient space for responding personnel and equipment.

4. Structures for personnel briefing.

5. Protection against weather.

6. Water and power accessibility, if possible.

7. Rest rooms, if possible.

8. Communications capability (multiple phone lines, if possible).

9. Consider wind shifts and potential expansion of release.

ESTABLISHING THE COMMAND POST

1. Identify the CP with a green flag with white lettering and/or a green strobe light and notify Dispatch Center and commanders of responding units of the CP name and location.

2. The Incident Commander should appoint the CP staff, as needed.

    - Command level representatives from each responding organization/agency should liaison with the CP staff.
    - Identify personnel assignments by using vests and/or armbands, if available.
    - Direct responding units to report to the designated staging areas via appropriate routes.

3. Establish appropriate communications with each supporting service, as needed. Request the Guernsey County Sheriff's Office Communications trailer, if appropriate.

4. Establish telephone and/or radio communications with the appropriate Emergency Operations Center (EOC), if activated.

5. Have the CP site cleaned up after incident.

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TAB 5-C

HAZMAT SCENE ORGANIZATION DESCRIPTION

The hazmat incident scene shall be divided into three control zones which have separate, defined functions. Each zone should be clearly identified. Movement of personnel and equipment into and out of each zone should be confined to specific access points and a connecting corridor. See the Hazmat Scene Organization Diagram in this section.

I. Control Zones

A. The Hot Zone

1. This is the area of hazmat operations. The Hot Zone represents the highest degree of danger to emergency workers because it contains the greatest concentration of chemicals, and presents the greatest opportunity for contamination spread and personal injury.

2. Once the Hot Zones is identified, its outer perimeter, known as the Hot Line, should be clearly marked by barrier tape (red tape, if available), traffic cones, rope, etc., whenever possible. The distance between the hazmat release point and the Hot Line will vary depending upon the materials involved and the scene characteristics. The minimum distance should be 50 feet, or as recommended in the DOT Emergency Response Guidebook. Nationally recognized standards suggest that this minimum distance should be 100 feet in all directions for a “non-leaking 55 gallon drum,” and 500 feet in all directions for a “leaking 55 gallon drum.”

3. No one should enter the Hot Zone except those members of the response team and specialists who are actively conducting hazmat operations and who are properly trained and wearing proper protective gear. Federal regulation 29 CFR 1910.120 (q)(V) emphasize that “the individual in charge of ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations.”

4. All personnel and equipment leaving the Hot Zone will require monitoring and/or decontamination. Therefore, all personnel and equipment must exit through the designated Access Control Point to the Warm Zone Decontamination Corridor where monitoring and decontamination are conducted.

5. The primary activities performed in the Hot Zone include:

a. Rescue
b. Reconnaissance
c. Mapping
d. Monitoring
e. Sampling
f. Containment
g. Product Identification
h. Control
i. Cleanup (spiller's responsibility)

B. The Warm Zone

1. The Warm Zone is a buffer area between the Hot and Cold Zones. This zone is where decontamination takes place. The Warm Zone represents an area of intermediate danger to emergency workers. Decontamination activities put personnel in this area in close contact with the hazardous materials in question. Furthermore, if the incident were to escalate, workers in the Warm Zone may become contaminated.

2. Once the Warm Zone is identified, its out perimeter, known as the Warm Line should be clearly marked by barrier tape (yellow tape, if available), traffic cones, rope, etc., whenever possible. The distance between the Hot Line and the Warm Line will vary depending upon the extent of decontamination necessary to control the spread of contamination.

3. Only properly trained decontamination personnel wearing proper protective gear should be allowed to work in the Warm Zone. No personnel should be allowed to exit from the Hot Zone without being monitored or decontaminated in the Warm Zone Decontamination Corridor. It should be assumed that there could be some contamination spread in this area due to work operations.

C. The Cold Zone

1. The Cold Zone is where operations and command functions required to support the incident are established. All emergency operations and personnel, other than entry and decontamination, should be located in this zone. The Cold Zone represents the lowest degree of danger to personnel at the scene and is considered to be the safest area at the incident. Even if the incident were to escalate, workers in this zone should be far enough away that they would not become contaminated.

2. One the Cold Zone is identified, its out perimeter, known as the Cold Line, should be clearly marked by barrier tape (green tape, if available), traffic cones, rope, etc., whenever possible. The distance between the Warm

Line and the Cold Line will vary depending upon the scene characteristics. The Cold Line is maintained by law enforcement personnel, if available, or by personnel assigned by the Incident Commander.

3. Only essential personnel should be allowed within the Cold Zone. Normal emergency scene clothing is adequate within this zone.

II. Decontamination Corridor

A. The Decontamination Corridor is a specified path through the Warm Zone where monitoring and decontamination take place. There should be an Access Control Point at each end of the corridor. All personnel and equipment exiting the Hot Zone should pass through the Decontamination Corridor.

B. The Decontamination Corridor should be placed upwind, uphill, at a right angle (perpendicular to the Hot Zone, preferably near an available source of water. Location of this corridor should take into consideration topographical and geographical features such as terrain, slope, drainage, etc. The prevailing wind should be blowing from the corridor toward the Hot Zone.

C. Once the Decontamination Corridor is identified it should be clearly marked by tape (orange tape, if available), traffic cones, rope, etc., whenever possible. The size of the corridor will vary depending upon the extent of decontamination necessary to control the spread of contamination.

III. Access Control Points

A. Movement of personnel and equipment to and from each zone should be limited to specific Access Control Points. An Access Control Point should be established for each zone. Only emergency response personnel should be allowed into the Cold Zone. Only active monitoring and decontamination personnel should be allowed into the Warm Zone. Only active hazmat operations personnel should be allowed into the Hot Zone. Establishing Access Control Points prevents unauthorized personnel from entering controlled areas. It also provides a means of logging and maintaining personal exposure records.

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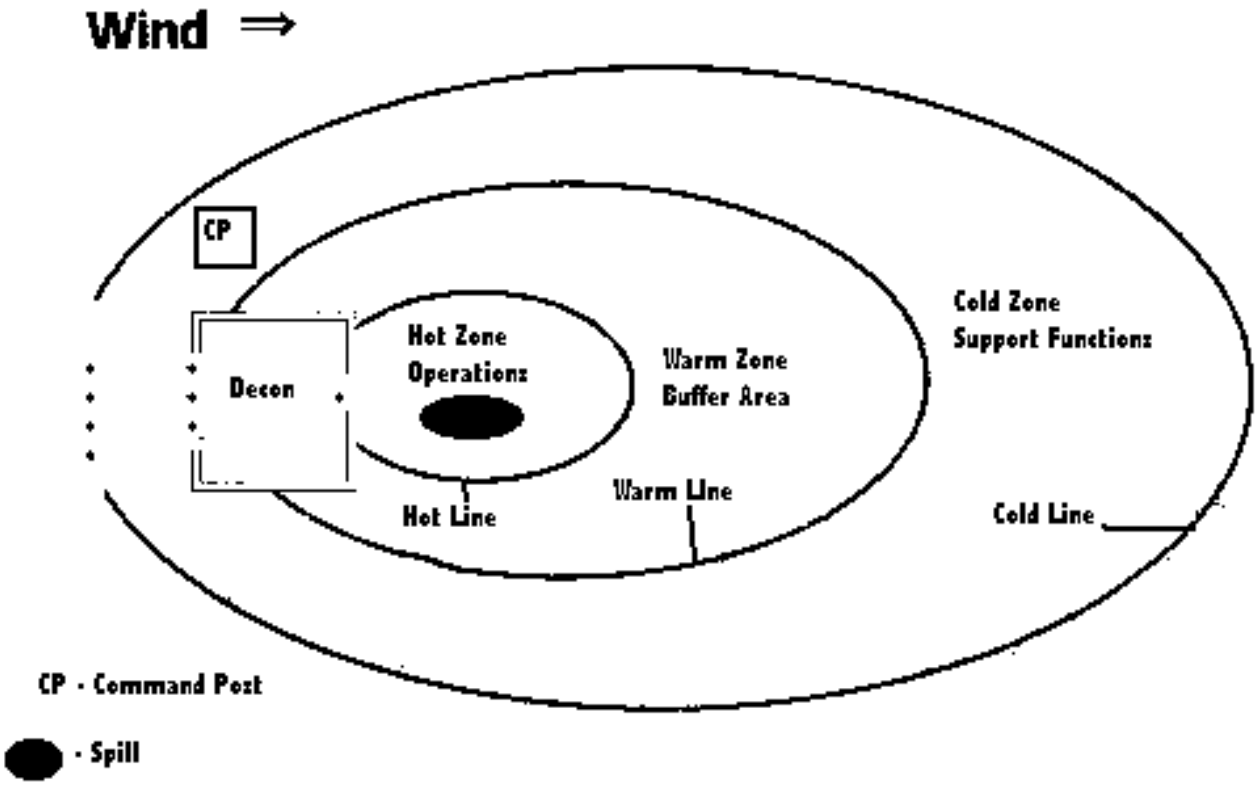
RESPONSE AND PREPAREDNESS PLAN

HAZMAT SCENE ORGANIZATION DIAGRAM



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TAB 5-D

PUBLIC PROTECTIVE ACTION DECISION FACTORS

The two principal strategies for public protection are evacuation and sheltering-in-place. The choice of which strategy to use in a given situation depends upon several factors. Sometimes these two actions may be used in combination. In any case, officials need to give the public information and instructions as soon as possible. The affected population will need continuing news and instructions until the situation returns to normal. The Emergency Management Office can assist in determining the number of people at risk in a given area of the County.

Evacuating people from their homes places them at risk, therefore, it should not be recommended without due cause. Proper evaluation of the factors listed below will determine the effectiveness of evacuation or sheltering-in-place. The relative importance of these factors can vary with emergency conditions. Other factors may also need to be considered. This list shows the kinds of information needed to make the initial decision.

The Hazardous Material

- Degree of health hazard
- Amount of hazardous material involved
- Rate of release from the container, versus control efforts
- Rate of vapor movement

The Population Threatened

- Location
- Number of people affected, injured, dead
- Time to evacuate or shelter-in-place
- Ability to control evacuation or shelter-in-place
- Building types and availability
- Special institutions or populations (hospitals, nursing homes, prisons, etc.)

The Weather Conditions

- Effect on vapor and cloud movement
- Potential for change
- Effect on evacuation or sheltering

EVACUATION

Usually, if there is time, evacuation is likely to be the safer option, especially for toxic gas or vapor hazards. For an evacuation to be successful there must be enough time for

the people to be warned, to get ready, and to leave the area. Large-scale evacuations should be considered when:

1. There is a strong potential for a toxic discharge, the discharge has not yet taken place, and there appears to be time available to relocate people, or

2. The discharge has taken place but people are sufficiently downwind to permit time for evacuation, or

3. People not yet in the direct path of a cloud or plume are threatened by a future shift in the wind direction, or

4. The safety hazards of the evacuation are outweighed by the benefits of the action, or

5. Telling people to shelter-in-place might not fully protect them from serious consequences.

Evacuation plans must take into account people who do not have access to private vehicles, handicapped residents, and institutionalized populations. All of these groups require transportation to the specified shelter(s). Handicapped persons may require special vehicles that can accommodate wheelchairs, or beds. Large-scale evacuations must be coordinated with the Emergency Management Office and the American Red Cross.

SHELTERING-IN-PLACE

Only airtight or over-pressurized structures will completely protect the occupants from external toxic gases or vapors. Sheltering-in-place may not be a good strategy if discharges are expected to be prolonged, or the vapors are explosive or otherwise especially harmful.

Sheltering-in-place should be considered when:

1. The health hazard posed by the release is minor, or

2. There is not enough time to evacuate the population at risk before the arrival of the toxic gas, or

3. Evacuation may put people at greater risk than sheltering-in-place (for example, during a winter storm).

As soon as the danger has passed people should be instructed to open windows, doors, and turn on ventilation systems to flush out any contaminants in buildings.

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TAB 5-E

CONTAMINATION SAFETY

CAUTION! CONTAMINATION SAFETY: The following procedures are unique to contamination emergency (hazardous materials incidents). All responding personnel, especially those who do not normally deal with hazmat incidents, should be made aware of this information:

- Under no circumstances should response personnel unnecessarily enter the contaminated area. Avoid contact with contaminated persons.

- Personnel experiencing skin irritation, sore throat, dizziness, or any discoloration of the skin, should leave the area immediately and seek medical attention. These are the initial symptoms of chemical poisoning.

- Do not drive through contaminated areas.

- Do not eat, drink, or smoke near the scene.

- Do not use flares; instead, request barricades.

- Do not touch any material or container involved in the incident. Treat all material as toxic or explosive until proven otherwise.

- Stay upwind of the scene.

- In a container-on-fire situation (example: tanker car, tanker truck, or fixed tank), if rescue of downed personnel is to be attempted always approach from the side of the involved tank, never from the end of the tank.

- On-scene traffic accident investigation shall not begin until the area has been decontaminated.

- If radioactive material is involved, establish radiation monitoring and decontamination areas, including medical facilities.

CONTAMINATED PERSONNEL:

- Isolate them from non-contaminated personnel.

- Establish a Safe Refuge area at the edge of the Hot Zone, keep contaminated victims there until a Decon Corridor is established.

- Contaminated personnel may be directed to remove all clothing and equipment and be washed down.

- Clothing, including uniforms and equipment such as leather belts, must be sealed in plastic bags marked “Contaminated,” not unnecessarily handled, and held for decontamination or disposal.

- Any personnel who may have become contaminated should receive medical treatment.

- NOTIFY THE HOSPITAL OF ANY CONTAMINATED VICTIMS.

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TAB 5-F

RADIOLOGICAL MATERIAL SAFETY PROCEDURES

1. Always assume that a leak has occurred; establish control zones; see TAB 5-C.

2. Radiological monitors should approach from upwind with full protective gear, including self-contained breathing apparatus and detection gear.

    a. Scan area for presence of radiological contamination.

    b. Examine shipping papers or placards whenever possible.

    c. Establish monitoring and decontamination areas; see TAB 5-C.

3. Do not eat, drink, or smoke until your are out of the contaminated area, have been monitored and found “clean.” Personal exposure records must be accurately logged and maintained. See TAB 3-G for the Individual Radiological Exposure Form.

4. Fight fire from as far upwind as possible.

5. If right-of-way must be cleared, wash spill to shoulders of right-of-way and confine water and material, if possible.

6. All apparatus, equipment, and personnel must be monitored and decontaminated if necessary.

7. If it is necessary to protect life, and prevent the spread of contamination, sandbag or cover radioactive material with a minimum of eight (8) inches of sand or earth. Stand as far away as possible while covering the material, use very long handled shovels, etc.

8. Do not attempt to cleanup or touch any radioactive material.

9. Cleanup/restoration requirements will be determined by the Ohio Department of Health's Bureau of Radiation Protection.

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TAB 5-G

EXPLOSIVE MATERIAL SAFETY PROCEDURES

1. Use extreme caution; request qualified help – Bomb Squad.

2. Safety precautions:

   a. Do not handle explosives unless properly trained.

   b. Do not drop, throw, step on, or otherwise mistreat explosive material.

   c. Do not attempt to thaw out dynamite if it is frozen, or take it into a warm vehicle or room.

   d. Do not fight fires involving explosives.

   e. Do not try to detonate explosives by shooting at them.

   f. Do not try to detonate explosives that are deteriorated or damaged.

   g. Do not try to take apart detonators or initiators.

   h. Do not handle deteriorated explosives.

   i. Do not remove the shunt from electrical blasting caps.

   j. Do not perform disposal operations during foul weather or electrical storms.

   k. Do not store blasting caps with explosives.

   l. Do not park explosive loaded vehicles in congested or built up area.

   m. Do not use radio devises near explosives (recommend turning radios off).

   n. Avoid inhaling fumes from burning or detonated explosives.

   o. Wear proper protective clothing and equipment when handling explosives.

   p. Store explosives in a proper, secure storage container safe from exposure to the weather.

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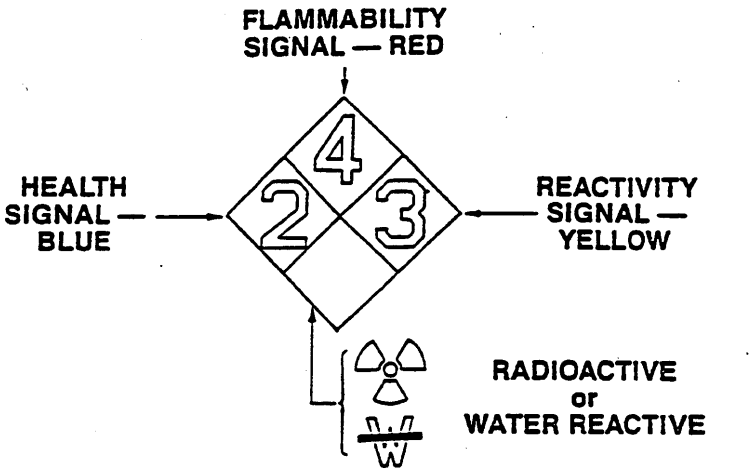
TAB 5-H

NFPA HAZARD IDENTIFICATION SYSTEM



Identification of Health Hazard Color Code: BLUE		Identification of Flammability Color Code: RED		Identification of Reactivity (Stability) Color Code: YELLOW	
Signal	Type of Possible Injury	Signal	Susceptibility of Materials to Burning	Signal	Susceptibility to Release of Energy
4	Materials which on very short exposure could cause death or major residual injury even though prompt medical treatment was given.	4	Materials which will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or which are readily dispersed in air and which will burn readily.	4	Materials which in themselves are readily capable of detonation or of exposure decomposition or reaction at normal temperatures and pressures.
3	Materials which on short exposure could cause serious temporary or residual injury even though prompt medical treatment was given.	3	Liquids and solids that can be ignited under almost all ambient temperature conditions.	3	Materials which in themselves are capable of detonation or explosive reaction but require a strong initiating source or which must be heated under confinement before initiation or which react explosively with water.
2	Materials which on intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical treatment is given.	2	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	2	Materials which in themselves are normally unstable and readily undergo violent chemical change but do not detonate. Also materials which may react violently with water or which may form potentially explosive mixtures with water.
1	Materials which on exposure would cause irritation but only minor residual injury even if no treatment is given.	1	Materials that must be preheated before ignition can occur.	1	Materials which in themselves are normally stable, but which can become unstable at elevated temperatures and pressures or which may react with water with some release of energy but not violently.

0	Materials which on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.	0	Materials that will not burn.	0	Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water

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TAB 5-I

PERSONAL PROTECTIVE EQUIPMENT
FOR HAZARDOUS MATERIALS RESPONSE

Level A Protection

1. Self Contained Breathing Apparatus (SCBA)
2. Fully encapsulating, vapor protective, chemical-resistant suits.
3. Coveralls.
4. Long cotton underwear (optional).
5. Boots – chemical-resistant, steel toe, and shank.
6. Hard hat (under suit).
7. Disposable gloves and boot covers.
8. Gloves (inner) – chemical resistant.
9. Cooling unit (optional).
10. Two-way radio communications.

Level B Protection

1. Self Contained Breathing Apparatus (SCBA).
2. Supplied-air respirator (MSHA/NIOSH approved)
3. Chemical-resistant clothing.
4. Long cotton underwear (optional).
5. Coveralls.
6. Gloves (outer), chemical-resistant.
7. Gloves (inner), chemical-resistant.
8. Boot Covers (outer), chemical-resistant.
9. Hard hat.
10. Two-way radio communications.

Level C Protection

1. Air-purifying respirator – full face canister equipped (MSHA/NIOSH approved).
2. Chemical resistant clothing (coveralls – hooded, one-piece or two-piece chemical splash suit; chemical-resistant hood and apron; disposable chemical-resistant overalls).
3. Gloves (outer), chemical resistant.
4. Boots (outer), chemical resistant.
5. Hard hat.
6. Two-way radio communications.

Level D Protection

1. Work uniform (shoes, shirt, trousers, etc.).
2. Coveralls – optional.
3. Gloves – optional.
4. Chemical resistant boots – optional.
5. Goggles – optional.

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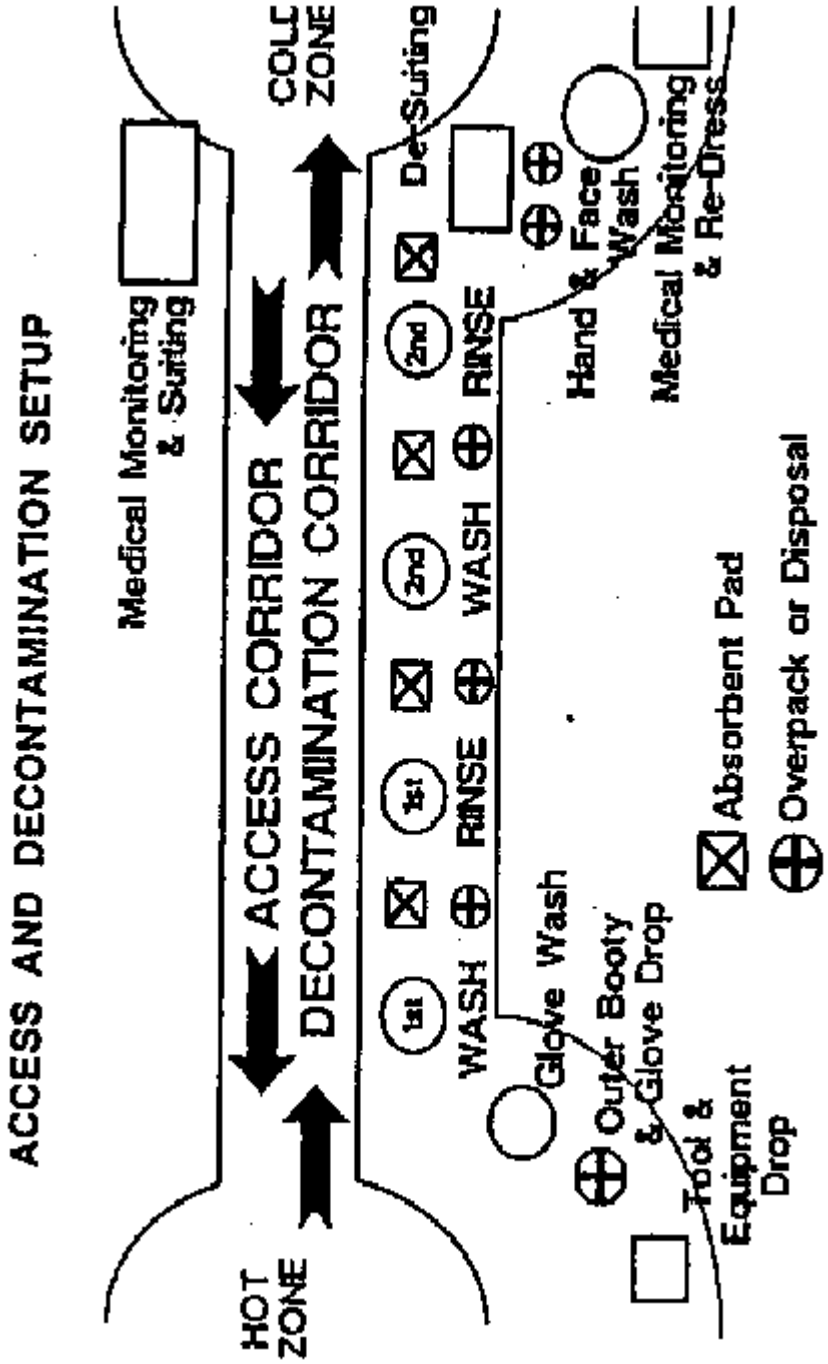
TAB 5-J

SAMPLE DECONTAMINATION SET-UP



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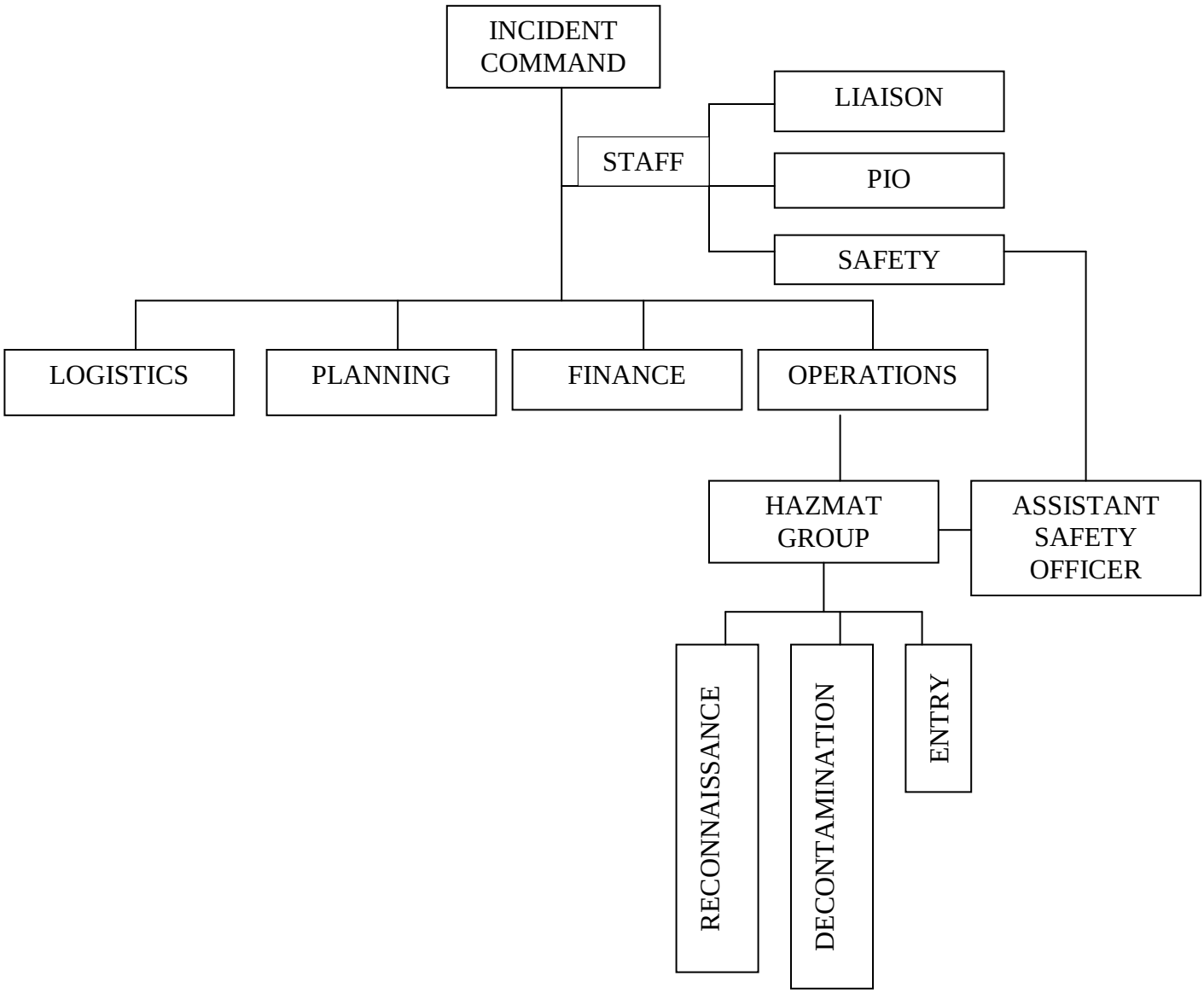
TAB 5-K

BASIC INCIDENT COMMAND STRUCTURE FOR HAZMAT SCENE



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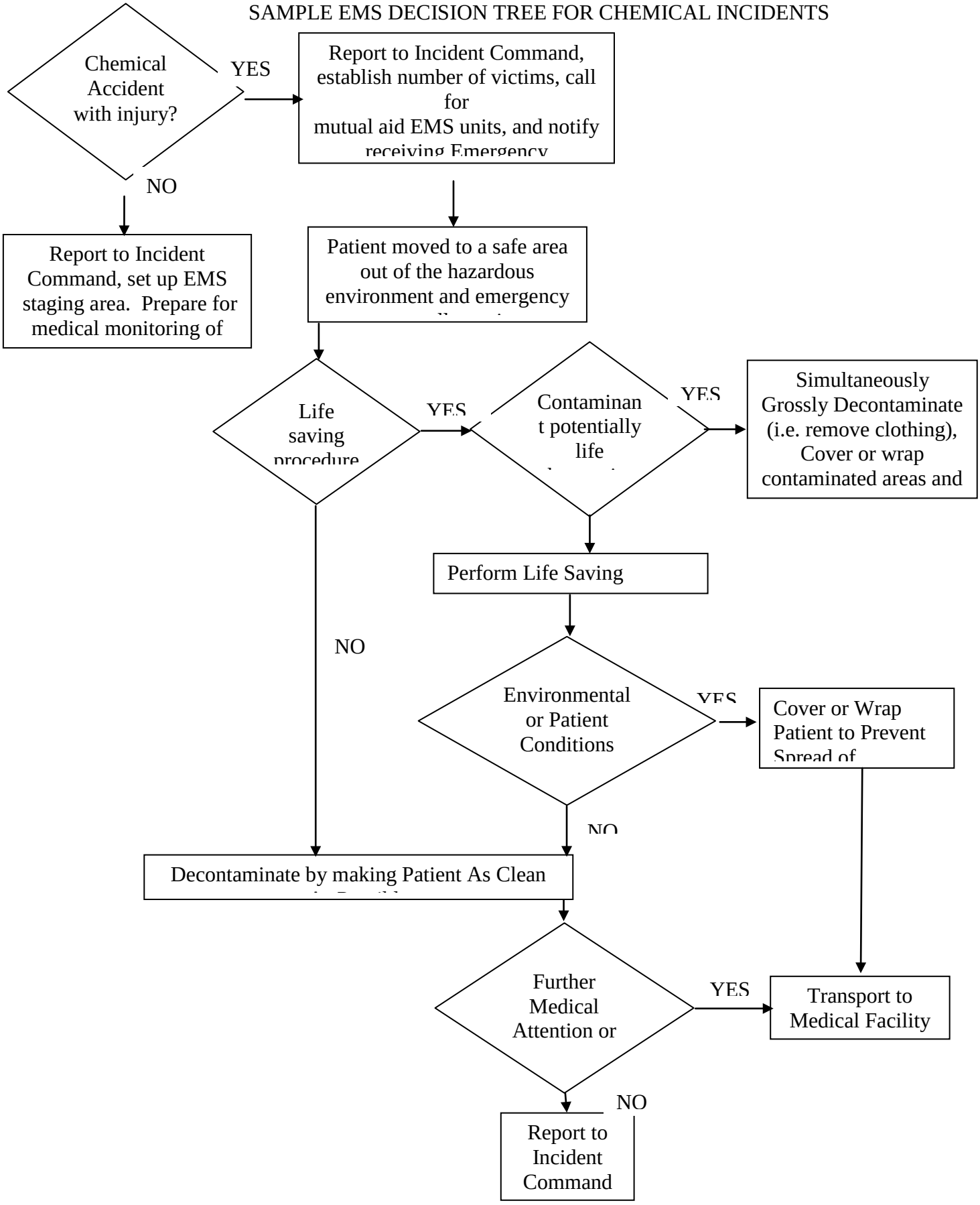
TAB 5-L
SAMPLE EMS DECISION TREE FOR CHEMICAL INCIDENTS



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