

SECTION 11.9

CODE ORANGE: HAZARDOUS MATERIAL SPILL, EXPOSURE & DECONTAMINATION

PROCEDURES TO BE FOLLOWED IN THE EVENT A HAZARDOUS MATERIAL INCIDENT OCCURS AT LOMA LINDA UNIVERSITY HEALTH

RESPONSE

Large External Spill with Plume

Follow LLUH protective action guideline, *shelter in place*:

1. If threat is an airborne environmental hazard, occupants should utilize shelter in place kits, if available, to tape and seal openings around doors and windows, wall outlets, and other openings. HVAC vents shall be shut off when possible, covered with plastic and taped to minimize air movement. Kits can be made out of trash bags and tape, using scissors to cut plastic and tape to form.
2. Monitor radio, media, and LLUH disaster information line for updates on situation.
3. Remain in room during a shelter in place order until an “all clear” notification is given via LLUH Alerts.
4. Current codes and standards applied to the design, construction and maintenance of facilities intend that the building protect its occupants where they are when possible.
5. When the shelter in place order is given due to a HazMat incident, first responders must utilize proper personal protective equipment while assisting the needs of the LLUH campus. Staff, patients, and visitors must remain inside building and remain there, keeping all doors and windows closed. Facilities Management and Campus Engineering will remotely shut off Heating Ventilation Air Conditioning (HVAC) units where possible.

Internal Spill

1. *Identify The Material(s)*
 - Use the container label or interview the victim to determine to what material(s) the person has been exposed.
 - If the label is absent or illegible, consider the material to be an unknown and evacuate the work area.
 - Review the SDS to determine what exposure hazards the material(s) represents to the victim or to responding personnel.
2. *Confine or Contain the Spill*
 - Without trying to stop the release, contain the release from a safe

distance.

- If safe to do so, keep it from spreading.
- Prevent others from becoming exposed.

3. *Evacuate Affected Areas, if Necessary*

- If the spill is creating a hazardous environment, evacuate the work area.
- After all students/employees have left the area, close the door to the room where the spill occurred.
- Alert employees not to enter this area.

4. *Call Security Control Center*

- Tell the officer that you have a hazardous material release or spill and give the following information:
 - o Location of the spill (building and room number).
 - o Material(s) involved in the spill. If you do not know this information, state that this is an unknown material.
 - o Quantity of material spilled.
 - o Other pertinent information.
- Security Control Center will page EH&S and give the information to the responding person.
- For spills or releases involving select agents, Security Control Center will also notify the RO (or ARO).
- The Security Department may be required to assist in controlling access to the area.
- EH&S will respond and clean up the spilled material using appropriate PPE.

**Exposure
Procedure**

1. *Identify The Material(s)*

2. *Decontaminate as necessary*

- Self-decon using emergency showers or eye wash station for no less than 15 minutes.
- If unable to self-decon, reference decontamination procedure below.

3. *Evacuate Affected Areas, if Necessary*

4. *Medical Evaluation*

- Those exposed to a hazardous material shall complete the following process:
 - o Fill out the required forms with your supervisor.
 - Employee's Claim for Workers' Compensation Benefits, Form DWC-1
 - Report of Accident/Illness, Form 20-0032-A
 - o Take the completed forms and report to the Occupational Health Center (OHC) or Emergency Department (after hours) for medical evaluation.

- o Students report to Student Health or Emergency Department (after hours) for medical evaluation.
- A report will be taken and forwarded to Risk Management/EH&S for follow-up.
- If regulatory agencies (e.g., Cal-OSHA) need to be notified, EH&S will make that contact and notification.

Supervisor Responsibilities

The supervisor shall oversee procedures to ensure proper decontamination and necessary treatment of any exposed person(s), as well as reporting the incident. The supervisor shall ensure that the following steps have been completed:

Decontamination Procedure

In a large-scale event, the Hazmat for Healthcare team will respond to Decontaminate victims. Under 10 victims, Emergency Department staff will conduct decontamination.

1. Don personal protective equipment.
2. Set up decontamination operations equipment.
3. Triage victims.
4. Remove all of the victim's clothing and personal belongings (e.g., jewelry, wallet, glasses) and place in a Patient Belongings bag.
 - Keep all belongings in the **Dirty Zone**;
 - EH&S personnel will seal and store and/or dispose of these items.
5. Flush each victim for a *minimum of 5 minutes* with cool, running water.
 - Assist the patient, if unable to scrub, and remove contamination using water and a mild soap.
6. Place patient on a clean gurney or wheelchair.
7. Keep contaminated linens and equipment in the **Dirty Zone**.
8. When the patient is transferred to the **Transition Zone**, give them a gown and blankets.
9. No personal protective equipment can leave the **Dirty Zone**.
10. Only personnel without personal protective equipment can escort the patient into the ED through the **Clean Zone**.

PREPARATION

Education & Training

1. Staff are educated to the Hazard Communication program in the following venues:
 - New Employee Orientation
 - Annual BLUE Book competency
2. Environmental Health & Safety (EH&S) staff that respond to these events are required to be OSHA HAZWOPER 40-hour certified initially and receive annual 8-hour refresher training.

Policies

3. LLUH Operating Policy T-9, “Hazardous Materials & Wastes Management” defines a hazardous material and outlines steps to take in the event of a spill or exposure. This policy is covered in the educational venues listed above.
4. Students who work or perform research in university labs receive safety training from their respective schools.

MITIGATION

Preventive Considerations

1. Departments and labs using flammable materials (e.g., alcohol based hand gels, solvents, compressed oxygen) are restricted to the allowable quantities stored based on the Uniform Fire Code and square footage of the area.
 - Surveys of these areas are conducted to determine compliance.
2. Bulk flammable materials storage is located in secured areas (e.g., oxygen storage tank, flammable storage room) with restricted access.
3. According to the LLUH Operating Policy T-9, staff are required to do the following:
 - Replace hazardous materials with non-hazardous substitutions, as feasible.
 - Order minimal quantities of hazardous materials.
 - Follow proper handling and storage procedures.
 - Verify that containers are appropriately labeled.
 - Contain wastes in appropriately labeled containers.
 - Use appropriate personal protective equipment (PPE) when handling a hazardous material.
 - Not to mix incompatible hazardous materials.

RECOVERY

1. After all patients have been decontaminated, EH&S personnel will properly dispose of contaminated items, including:
 - Patient clothing and belongings
 - Personal protective equipment used by staff
 - Contaminated linens
 - Contaminated rinse water
2. If possible, all reusable equipment shall be decontaminated prior to storing.
3. Documentation of the event shall be maintained by EH&S.