

# Standard Operating Procedure (SOP): Radioactive Material and Hazardous Material Spill Response

**Effective Date: 7/28/2025 (revised as needed)**

**Prepared By: Environmental Health and Safety Office (EHS)**

**Approved By: Carl Taz Wininger, EHS Director**

## 1. PURPOSE

To establish a uniform response to spills involving radioactive and hazardous materials at the University of Louisiana at Lafayette, ensuring personnel safety, environmental protection, and regulatory compliance.

## 2. SCOPE

This SOP applies to all faculty, staff, students, contractors, and visitors at the University of Louisiana at Lafayette who handle or may be exposed to radioactive and/or hazardous materials in laboratories, research areas, or storage locations.

## 3. DEFINITIONS

- **Hazardous Materials (Hazmat):** Substances posing health, fire, reactivity, or environmental hazards.
- **Radioactive Materials:** Any material emitting ionizing radiation regulated by federal/state authorities.
- **Minor Spill:** A spill that is small, non-volatile, and poses no immediate threat to life or environment.
- **Major Spill:** A spill involving large volume, high hazard level, or immediate threat to life/environment.

## 4. RESPONSIBILITIES

- **Principal Investigators (PIs):** Ensure lab personnel are trained, and spill kits are available.
- **Lab Personnel:** Follow this SOP and report all spills immediately.

- **Environmental Health & Safety (EHS):** Coordinate spill response, reporting, decontamination, and regulatory notification.
- **University Police:** Assist with area control and emergency services coordination.

## 5. MATERIALS AND EQUIPMENT

- Spill response kits (chemical and radiological)
- Personal Protective Equipment (PPE): gloves, goggles, lab coat, respiratory protection
- Absorbent pads or vermiculite
- Radiation survey meter (Geiger counter)
- Warning signs/barriers
- Waste containers (labeled)
- Tongs or forceps

## 6. PROCEDURE

### 6.1. General Procedure for All Spills

1. **Alert and Evacuate:** Alert nearby personnel and evacuate the immediate area if necessary.
2. **Secure the Area:** Close doors, restrict access. Post warning signs.
3. **Notify Authorities:** Call:
  - **EHS:** 337-482-1840
  - **University Police:** 337-482-6447
  - **Radiation Safety Officer (RSO):** 337-482-5063(if radioactive)
4. **Assess the Spill:**
  - Determine if it is **minor** or **major**.
  - Identify the material spilled and consult the Safety Data Sheet (SDS).

### 6.2. Response to MINOR Spill

#### Radioactive Material:

- Don PPE and monitor with a radiation detector.
- Cover the spill with absorbent material to prevent spread.
- Clean from the outer edges inward using wet methods (no dry sweeping).
- Use radiation survey meter to confirm decontamination.
- Collect waste in labeled radioactive waste container.
- Store in assigned RAD waste area.
- Schedule a RAD waste pickup with vendor.
- Record incident and report to EHS/RSO.

#### Hazardous Material:

- Don PPE.

- Use appropriate neutralizers if available (e.g., for acids/bases).
- Absorb with spill pads or vermiculite.
- Place absorbent and hazmat in sealed container(s).
- Dispose of it in a hazmat container and label.
- Store in hazmat waste collection area and add to hazmat waste collection manifest.
- Ventilate the area if needed.
- Report to EHS.

### 6.3. Response to MAJOR Spill

- **Immediately evacuate** all personnel.
- **Call 911** (or campus emergency number) and **notify EHS and University Police**.
- Do NOT attempt cleanup.
- Move to a safe location and await emergency response.
- Provide SDS to responders and describe the incident (type of material, amount, hazards).

## 7. POST-INCIDENT PROCEDURES

- **Medical Attention:** Anyone exposed must seek immediate medical attention.
- **Incident Reporting:** Complete an incident report within 24 hours and submit to EHS.
- **Decontamination:** EHS will coordinate decontamination and waste disposal.
- **Follow-Up:** Investigation by EHS to determine cause and prevent recurrence.
- **Training Review:** Lab personnel may require retraining before resuming work.

## 8. TRAINING REQUIREMENTS

- Annual lab safety and radiation safety training
- Spill response drills (recommended every 6–12 months)
- Documentation of training maintained by PI and EHS

## 9. RECORDKEEPING

- Spill incident reports
- Radiation survey logs
- Waste disposal records
- Training records

## 10. REFERENCES

- U.S. Nuclear Regulatory Commission (NRC) regulations
- OSHA Hazard Communication Standard (29 CFR 1910.1200)
- EPA regulations on hazardous waste
- [University Name] Laboratory Safety Manual
- Safety Data Sheets (SDS)

## 11. CONTACT INFORMATION

- **Environmental Health & Safety Office:**
  - Carl Taz Winger 337-482-1840 | [safety@louisiana.edu](mailto:safety@louisiana.edu)
- **Radiation Safety Officer (RSO):**
  - Andy Hollerman | 337-482-5063 | [William.hollerman@louisiana.edu](mailto:William.hollerman@louisiana.edu)
- **University Police/Emergency Services:**
  - 911 or 337-482-6447 | [police@louisiana.edu](mailto:police@louisiana.edu)