Fayetteville State University

Chemical Spill Prevention and Response Plan

Environmental Health & Safety

J. Daniel Core & Andrea Cortez

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Contents

Fayetteville State University – Environmental Health & Safety (EHS)
Aligned with OSHA, EPA, NFPA, and RCRA Regulations

Regulatory Basis

Standard	Applies To
OSHA 29 CFR 1910.1450 – Chemical Hygiene Plan	All labs handling hazardous chemicals
OSHA 29 CFR 1910.1200 – Hazard Communication	Labeling, SDS access, chemical hazard training
EPA 40 CFR 112 – SPCC Rule *(if applicable)*	Facilities storing large quantities of oil/chemicals
NFPA 45 – Fire Protection for Labs	Fire safety in chemical laboratories
EPA RCRA Rules – 40 CFR Parts 260–273	Waste characterization, storage, and cleanup
NIH/CDC BMBL Guidelines *(for biohazards)*	Biological and infectious materials cleanup

Chemical Spill Prevention & Response Plan

1. Roles and Responsibilities

Each laboratory must:

- Appoint a **Spill Response Coordinator** (usually the PI, Lab Manager, or senior researcher)
- Clearly define responsibilities for:
  - Notifying **Environmental Health & Safety (EHS)**
  - Evacuating occupants (if necessary)
  - Determining whether a spill is **minor or major**
  - Performing **safe cleanup** of minor spills
  - Communicating with **emergency responders** in the event of a large spill or injury

2. Spill Risk Identification

All labs must:

- Maintain an **up-to-date chemical inventory**
- Identify chemicals with high spill risk or unique hazards, including:
  - **Flammables**
  - **Corrosives**
  - **Toxics**
  - **Reactive agents**
  - **Compressed gases**
  - **Biohazards** *(if applicable)*

Spill hazards should be reviewed **quarterly** and included in laboratory **Standard Operating Procedures (SOPs)**.

3. Spill Response Procedures

Minor Spills (e.g., <100 mL of dilute acid, ethanol, or a known low-toxicity chemical):

- Notify others in the area
- Don appropriate **PPE** (lab coat, goggles, gloves)
- Use the **spill kit** to neutralize or absorb the material
- Clean and decontaminate the area
- Collect cleanup debris in a **sealed, labeled container** for hazardous waste disposal
- Report the spill to **EHS** within 24 hours

Major Spills (e.g., flammables, toxics, unknown substances, spills requiring evacuation or medical attention):

- Immediately **evacuate the area**
- Pull fire alarm (if needed) or **call 911 / Campus Police 1911**
- Notify **EHS** and provide **SDS** for chemical(s) involved
- Keep personnel away until cleared by emergency responders or EHS
- Assist with incident reporting and debrief

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4. Spill Kits & Equipment

Each lab must maintain a **clearly labeled and fully stocked spill kit** with:

- Universal absorbent pads/materials
- Acid/base neutralizer powders
- Mercury spill kits *(if applicable)*
- Safety goggles and nitrile/chemical-resistant gloves
- Lab coat or disposable apron
- Scoop/dustpan and collection bags or containers
- **Spill response instructions** and **emergency contact list**

Spill kits must be **checked monthly** and restocked as needed. Document inspections using a spill kit checklist (Appendix 1. Spill Kit Inspection Checklist)

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5. Notification & Reporting Procedures

All spills must be reported to **EHS** using the standard **Lab Incident or Spill Report Form**. The report should include:

- Date and time of the spill
- Chemical(s) involved and estimated quantity
- Names of personnel present
- Description of how the spill occurred
- Cleanup steps taken and PPE used
- Any injuries, exposures, or damages

Recordkeeping: All spill reports must be retained by the department and EHS for **at least 3 years**, per RCRA and OSHA standards.

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6. Training Requirements

All lab personnel (faculty, students, and staff) must receive:

- **Initial spill response training** during onboarding

- **Annual refresher training**
- **Site-specific training** if new hazards are introduced

Training must cover:

- Chemical hazards and SDS use
- PPE use and selection
- How to determine spill severity
- Spill response steps and use of kits
- How to report spills

Training records must include:

- Trainee names and roles
- Date of training
- Trainer name
- Topics covered
- Participant signatures

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7. Preventive Measures

To minimize spill risk:

- Store chemicals by compatibility in **fire-rated or corrosion-resistant cabinets**
- Use **secondary containment** (trays, bins) under liquid containers
- Label all containers with **chemical name, hazard class, and date**
- Avoid overstocking; limit chemical quantities to what's needed
- Keep work areas **organized and clutter-free**
- Install **chemical-resistant mats or trays** in high-risk areas (e.g., near fume hoods or sinks)
- Review chemical storage and handling SOPs quarterly

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8. Additional Best Practices

- Maintain **emergency phone numbers** near every spill kit and lab entrance
- Post **spill response flowcharts** in visible locations
- Conduct **spill response drills** at least once per year
- Ensure all spill response actions are coordinated with the **Chemical Hygiene Officer and EHS**

9. Appendix

Spill Kit Inspection Checklist
Fayetteville State University
1200 Murchison Rd, Fayetteville, North Carolina

Department: _____ **Building:** _____
Room Number: _____ **Inspector:** _____
Inspection Date: ___ / ___ / _____ **Re-inspection Date:** ___ / ___ / _____

Rating:
✓ = Present & In Good Condition ✗ = Missing/Damaged **N/A** = Not Applicable

Item	Status (✓/✗/N/A)	Notes
Spill kit is in designated location and properly labeled		
Absorbent pads/rolls are available		
Universal absorbents (granules/pillows) are stocked		
Neutralizing agents (acid/base) are available		
PPE (gloves, goggles, lab coat) is included		
Disposable bags and ties for waste disposal are present		
Dustpan and broom for spill clean-up are available		
Hazardous waste labels are stocked		
Emergency contact information is posted		
Instructions for spill response are included		
Used spill materials properly disposed of		

Additional Comments:

Inspector's Signature: _____ **Date:** ___ / ___ / _____

Corrective Actions Required? ☐ Yes ☐ No
Follow-up Assignee: _____ **Due Date:** ___ / ___ / _____