

EHS Manual

Table of Contents

Bowie State University Environmental Health and Safety Plan	2
Appendix	7
Appendix A: HAZARD COMMUNICATION PLAN	8
Appendix B: Chemical Hygiene Plan	12

Appendix C: Bowie State University Respiratory Protection Program 16

Appendix D: Fire Extinguisher Maintenance Plan21

Appendix E: Hazardous Waste Management Plan (HWMP).....23

Appendix F: Bowie State University Hazardous Waste Inspection Form27

Bowie State University Environmental Health and Safety Plan

I. Introduction

A. Mission Statement Bowie State University is committed to promoting and maintaining a safe and healthy environment for all students, faculty, staff, and visitors. The Environmental Health and Safety (EHS) Plan outlines the university's commitment to ensuring compliance with environmental health and safety regulations, promoting a culture of safety, and preventing accidents and injuries.

B. Objectives

1. To ensure compliance with all applicable environmental, health, and safety laws and regulations.
2. To provide training and resources to the university community on environmental health and safety practices.

3. To prevent and mitigate risks associated with environmental health and safety hazards.
4. To establish and maintain effective emergency response protocols.

II. Administration and Organization

A. Environmental Health and Safety Program

Leadership: The Environmental Health and Safety Program is led by the Associate Director of Risk Management, who reports directly to the Director of Strategic Initiatives in the Office of Administration and Finance.

Personnel: The Environmental Health and Safety Program is staffed by professionals specialized in various aspects of environmental health and safety.

Responsibilities:

1. Develop and implement EHS policies and procedures.
2. Conduct regular inspections and audits.
3. Manage mitigation projects associated with environmental health and safety hazards.
4. Provide training and resources to the university community.
5. Investigate incidents and ensure corrective actions are taken.
6. Liaise with regulatory agencies and ensure compliance.

III. Environmental Health and Safety Programs

A. Hazard Communication Program (Appendix A)

Chemical Inventory: Maintain an up-to-date inventory of hazardous chemicals on campus.

Safety Data Sheets (SDS): Ensure availability and accessibility of SDS for all hazardous chemicals.

Labeling: Ensure all containers of hazardous chemicals are properly labeled.

B. Laboratory Safety (Appendix B)

Lab Inspections: Conduct regular laboratory inspections to ensure compliance with safety standards.

Training: Provide mandatory safety training for all laboratory personnel.

Personal Protective Equipment (PPE): Ensure availability and proper use of PPE in all laboratories.

C. Occupational Health and Safety (Appendix C)

Hearing Conservation: Conduct noise level assessments and provide hearing protection where necessary.

Respiratory Protection: Ensure proper use and maintenance of respiratory protection equipment.

Hazard Mitigation: Conduct job hazard analyses to assess hazards and take action to mitigate potential risks

D. Fire and Life Safety (Appendix D)

Fire Extinguishers: Ensure fire extinguishers are accessible and maintained.

Fire Alarms and Detection Systems: Regular testing and maintenance of fire alarms and detection systems.

Automated External Defibrillator (AED): Ensure AEDs are accessible, operational and maintained.

E. Waste Management (Appendix E, F)

Hazardous Waste: Ensure proper disposal of hazardous waste in compliance with regulations.

F. Safety Training Programs

General Safety Orientation: Mandatory safety orientation for all new employees and students.

Specific Training: Job-specific training tailored to the risks associated with particular roles and responsibilities.

Refresher Courses: Regular refresher courses to ensure ongoing compliance and awareness.

Online Resources

EHS Website: Access to safety protocols, training materials, and resources on the university's EHS website.

Safety Manuals: Availability of comprehensive safety manuals and guidelines for various departments and activities.

IV. Emergency Response Procedures

A. Emergency Notification System

BEEs Alerts A multi-modal alert system that sends notifications via text message, email, and loudspeakers in the event of an emergency.

Communication Plans: Detailed communication plans to ensure timely and accurate information dissemination during emergencies.

B. Emergency Operations Plan (EOP)

Activation: The EOP is activated by the Emergency Management Team (EMT) in response to significant emergencies or disasters.

Incident Command System (ICS): Utilization of ICS to coordinate response efforts and resources.

Emergency Response Procedures: Detailed protocols for various types of emergencies, including evacuation, shelter-in-place, and lockdown procedures.

V. Reporting and Recordkeeping

A. Incident Reporting

Accident and Incident Reporting: Procedures for reporting accidents, incidents, and near-misses.

Investigation and Follow-Up: Conduct thorough investigations and implement corrective actions to prevent recurrence.

B. Recordkeeping

Training Records: Maintain records of all safety training sessions and participants.

Inspection and Audit Reports: Document findings from inspections and audits, along with corrective actions taken.

Regulatory Compliance: Ensure records are maintained in accordance with regulatory requirements.

VI. Evaluation and Improvement

A. Continuous Improvement

Regular Reviews: Conduct regular reviews of EHS policies, procedures, and programs.

Feedback Mechanisms: Solicit feedback from the campus community to identify areas for improvement.

Benchmarking: Compare EHS performance with industry standards and best practices.

B. Safety Audits and Inspections

Scheduled Audits: Conduct scheduled audits to assess compliance and identify potential hazards.

Unscheduled Inspections: Perform unscheduled inspections to ensure ongoing adherence to safety protocols.

VII. Communication and Community Involvement

A. Safety Committees

EHS Committee: Regular meetings with representatives from various departments to discuss EHS issues and initiatives.

Student and Staff Involvement: Encourage active participation from students and staff in safety programs and initiatives.

B. Outreach Programs

Safety Campaigns: Conduct safety awareness campaigns and events.

Collaborations: Work with local and national organizations to enhance safety programs and resources.

VIII. Contact Information

Concern	Contact	Contact Information
General safety concerns, lab safety, environmental hazards, compliance issues	Safety and Environmental Compliance Coordinator	[skalits@bowiestate.edu] / [301-860-4195]
Building maintenance issues, leaks, HVAC concerns	Facilities Management	[facilities@bowiestate.edu] / [301-860-4190]
Security threats, suspicious activity, emergencies	Campus Police	[Campus Police Email] / [301-860-4040]

IX. Conclusion

Bowie State University is dedicated to maintaining a safe and healthy environment for all members of our community. This Environmental Health and Safety Plan reflects our commitment to proactive safety measures, compliance with regulations, and continuous improvement in our environmental health and safety practices. Together, we can ensure that Bowie State University remains a safe place to learn, work, and grow.

Appendix

Appendix A: HAZARD COMMUNICATION PLAN

Purpose

The purpose of this Hazard Communication Plan (HCP) is to ensure that all employees at Bowie State University are informed about the hazards of chemicals they may encounter while working, and that proper precautions, training, and protective measures are provided to prevent workplace injuries and illnesses. This plan is developed in accordance with OSHA 29 CFR 1910.1200 (Hazard Communication Standard) and MOSH COMAR 09.12.31 (State Plan regulations for workplace safety).

Scope

This plan applies to all employees, contractors, and temporary workers who may be exposed to hazardous chemicals as part of their duties at Bowie State University. The university will comply with both OSHA and MOSH requirements for hazard communication and employee protection.

Responsibilities

Safety and Environmental Compliance Coordinator:

- The Safety and Environmental Compliance Coordinator is responsible for the overall implementation of this plan, ensuring that it aligns with both OSHA and MOSH regulations. The coordinator is also responsible for maintaining the hazardous chemical inventory, facilitating employee training, and ensuring access to Safety Data Sheets (SDS).

Supervisors:

- Supervisors are responsible for ensuring that their staff members are trained in the proper handling and safe use of hazardous chemicals. Supervisors will also ensure that labels are

not defaced and that chemical containers are appropriately labeled according to OSHA and MOSH standards.

Employees:

- Employees are responsible for following the procedures outlined in this plan, using proper personal protective equipment (PPE), reading labels and SDS, and reporting any chemical-related hazards or accidents to their supervisor.

Hazardous Chemical Inventory

A comprehensive hazardous chemical inventory will be maintained, ensuring compliance with OSHA and MOSH requirements for chemical hazard communication. This inventory will include:

- Chemical name and identification
- Manufacturer or distributor information
- Hazard classification (e.g., flammable, carcinogenic, corrosive)
- Chemical quantity and location
- Emergency contact information

The inventory will be reviewed annually and updated to ensure that it reflects current chemical usage and complies with OSHA and MOSH regulations.

Labels and Warning Systems

In compliance with OSHA 29 CFR 1910.1200(f) and MOSH COMAR 09.12.31, all hazardous chemicals will be labeled with the following information:

- Product identifier (name or code)
- Signal word (e.g., Danger, Warning)
- Hazard statements (brief statements describing the nature of the hazard)
- Precautionary statements (measures to minimize or prevent adverse effects)
- Supplier information (name, address, and telephone number)

Employees are prohibited from removing or altering labels. When chemicals are transferred to secondary containers, the secondary containers must also be labeled in accordance with OSHA and MOSH standards.

Safety Data Sheets (SDS)

As per OSHA 29 CFR 1910.1200(g) and MOSH COMAR 09.12.31, Safety Data Sheets (SDS) will be made available for each hazardous chemical used at Bowie State University. SDS will contain:

- Chemical identity and manufacturer's information

- Health and physical hazards
- First-aid measures
- Fire-fighting procedures
- Handling and storage recommendations
- Exposure control measures

SDS will be available in electronic format and accessible to all employees during their working hours. The SDS will be reviewed and updated when new information about chemical hazards becomes available.

Employee Training

In accordance with OSHA 29 CFR 1910.1200(h) and MOSH COMAR 09.12.31, all employees working with or potentially exposed to hazardous chemicals will receive training, including:

- Overview of OSHA and MOSH Hazard Communication Standards
- Understanding chemical labels and SDS
- Identification of chemical hazards (e.g., physical and health)
- Safe handling, storage, and disposal practices
- Emergency response procedures (e.g., chemical spills, exposure)
- Proper use of personal protective equipment (PPE)

Training will occur upon initial assignment to tasks involving hazardous chemicals, with refresher training provided annually. Records of employee training will be maintained by the Safety and Environmental Compliance Coordinator for a minimum of 3 years.

Hazardous Chemical Handling Procedures

Employees will be trained and required to follow procedures for the safe handling of hazardous chemicals. These procedures include:

- Proper storage and labeling of chemicals
- Procedures for dealing with chemical spills and accidents
- Disposal of chemical waste in compliance with OSHA and MOSH guidelines
- Use of appropriate PPE, such as gloves, goggles, respirators, and protective clothing

Supervisors are responsible for ensuring that all procedures are followed and that the appropriate PPE is provided and worn.

Emergency Procedures

- First Aid: Employees will be trained in emergency procedures for chemical exposure. This includes knowledge of first aid measures, eye wash stations, and emergency showers.

- Spill Response: Employees will be trained to handle chemical spills in accordance with the OSHA and MOSH spill response regulations. All spill kits will be inspected regularly and will include necessary absorbents, neutralizers, and PPE for cleanup.
- -Accident Reporting: Any accidents or incidents involving hazardous chemicals must be reported immediately to supervisors and the Safety and Environmental Compliance Coordinator. An investigation will be conducted to determine causes and implement corrective actions.

Record Keeping

Records of the following will be maintained and accessible in compliance with OSHA and MOSH regulations:

- Hazardous chemical inventory
- SDS for all hazardous chemicals
- Employee training records (retained for 3 years)
- Incident and accident reports
- Emergency procedures
- All records will be maintained by the Safety and Environmental Compliance Coordinator.

Plan Review and Updates

This Hazard Communication Plan will be reviewed annually to ensure its effectiveness and compliance with updated OSHA and MOSH regulations. The plan will be updated if new chemicals are introduced into the workplace, new regulatory standards are enacted, or changes in procedures are necessary.

Appendix B: Chemical Hygiene Plan

Background

OSHA Regulations

The Federal Occupational Safety and Health Administration (OSHA) enacted the Occupational Exposure to Chemicals in Laboratories Standard, CFR 1910.1450, to ensure that employees working with hazardous chemicals are protected. This standard applies to all laboratories at Bowie State University. The University implements a Chemical Hygiene Plan to ensure compliance with these regulations, outlining:

- Work practices, procedures, and policies to protect employees and students.
- Methods to minimize exposure to hazardous chemicals.
- Annual safety training for all researchers, with mandatory orientation for new laboratory personnel.
- Emergency response procedures to handle chemical accidents effectively.
- A structured framework for monitoring, assessing, and improving chemical safety practices across all university laboratories.

The plan is updated annually and made available to all laboratory personnel in digital and hard copy formats. The implementation of the plan is overseen by the designated Chemical Hygiene Officer/Safety Officer at the university.

General Information

All chemical exposures should be minimized. No laboratory chemical is without hazard. The following general precautions must be observed:

- Avoid skin contact with all laboratory chemicals.

- Assume unknown substances are hazardous.
- Wear gloves, safety glasses, and a laboratory coat at all times.
- Safety Data Sheets (SDS) must be readily accessible to all personnel.
- Laboratory personnel must be aware of proper chemical handling techniques to minimize risks.
- Hazardous materials should be labeled correctly, and inventory lists should be maintained.

Chemical Hygiene/Safety Officer Duties and Responsibilities

The Chemical Hygiene Officer/Safety Officer shall:

- Have sufficient training to evaluate and implement the plan.
- Be allocated adequate time and authority to carry out duties.
- Maintain an inventory of all hazardous materials and waste.
- Ensure proper training in hazardous material handling, labeling, storage, and disposal.
- Maintain and update Safety Data Sheets.
- Conduct hazard assessments and inspections.
- Respond to hazardous material incidents.
- Evaluate the effectiveness of the plan annually.
- Coordinate with emergency response teams and fire safety personnel.
- Ensure compliance with all local, state, and federal regulations related to chemical safety.
- Conduct periodic safety drills to enhance emergency preparedness.

General Laboratory Safety and Work Practices

- Review and understand chemical hazards before use.
- Never eat, drink, or store food in laboratories.
- Label all chemical containers properly.
- Dispose of hazardous waste in designated containers.
- Always use fume hoods when working with volatile chemicals.
- Keep work areas clean and clear of non-essential materials.
- Report all accidents and injuries immediately.
- Proper ventilation must be maintained to reduce exposure to airborne contaminants.
- Maintain up-to-date records of all laboratory activities and safety inspections.

Definitions

Hazardous Materials: Substances capable of posing risks to health, safety, or property.

Flammable Chemicals: Easily ignitable liquids or solids.

Corrosive Chemicals: Substances that cause destruction of human tissue or severe corrosion to metals.

Reactive Waste: Unstable chemicals that may violently react or explode.

Toxic Waste: EPA-listed hazardous chemicals harmful to human health.

Combustible Liquids: Liquids that can ignite under specific conditions and pose a fire hazard.

Storage of Hazardous Chemicals

- Store chemicals in compatible containers and segregate based on hazard class.
- Acids must be stored separately from bases and flammables.
 - o Acids must be separated from caustics like potassium, sodium, and magnesium
 - o Oxidizing acids must be separated from organic acids, flammable, and combustibles
- Flammable chemicals should be stored in safety cabinets.
- Peroxide-forming chemicals must be labeled with dates and properly disposed of before expiration.
- Toxic compounds require secure storage with proper labeling.
- Laboratory storage areas must be regularly inspected for compliance with storage regulations.

Protective Apparel and Equipment

- Laboratories must provide appropriate protective equipment (gloves, goggles, lab coats, etc.).
- Safety showers and eyewash stations must be within 10 seconds of laboratories handling hazardous chemicals.
- Fire extinguishers must be accessible and maintained.
- Proper signage and labeling must be in place for emergency contacts, safety equipment, and hazard classifications.
- Personnel must be trained in the use of personal protective equipment (PPE) and emergency response measures.

Emergency Procedures

- Major Accidents (Students & Employees): Call university police at 301-860-4040.
- Minor Accidents: Report to the university health center or emergency room if after hours.
- All accidents must be documented and reported to the department chair within 24 hours.
- Emergency response kits must be available in all laboratories.

Training Requirements

- All new laboratory personnel must complete chemical safety training before beginning work.
- Annual chemical safety seminars are mandatory for personnel working in laboratories.
- Faculty instructors must train students in proper laboratory safety procedures.
- Additional training must be provided for handling highly toxic or reactive chemicals.

Hazardous Waste Management

- Waste must be properly labeled and stored in designated containers.
- Procedures must be in place to manage the disposal of expired or unnecessary chemicals.
- The university must coordinate with certified hazardous waste disposal services.
- Personnel handling hazardous waste must receive specialized training.

Ventilation and Engineering Controls

- Laboratories must be equipped with properly functioning ventilation systems.
- Fume hoods should be inspected regularly for efficiency.
- Air quality monitoring must be conducted to ensure safe laboratory environments.

Chemical Spill Response and Cleanup Procedures

- Immediate response measures must be in place for chemical spills.
- Personnel must be trained in proper cleanup and disposal of hazardous materials.
- Emergency response teams should be available for large-scale chemical spills.

Recordkeeping and Documentation

- Safety inspections and training records must be maintained.
- Chemical inventories should be updated regularly.
- Incident reports must be filed for all accidents and safety breaches.

Appendix C: Bowie State University Respiratory Protection Program

Purpose

This Respiratory Protection Program is designed to ensure the safety of all Bowie State University (BSU) facilities staff by providing a clear framework for the proper selection, use, and maintenance of respiratory protection. This program complies with OSHA Standard 29 CFR 1910.134, ensuring protection against exposure to hazardous airborne contaminants.

Scope

This program applies to all employees, contractors, and vendors who may be required to wear respirators during routine or emergency operations within the facilities department at Bowie State University.

Bowie State University is committed to providing a safe and healthy work environment. Employees who may be exposed to airborne contaminants or oxygen-deficient atmospheres must use respiratory protection in accordance with this program to minimize health risks.

Responsibilities

Safety and Environmental Compliance Coordinator (SECC):

- Develop, implement, and maintain the respiratory protection program.
- Conduct hazard assessments to determine when respiratory protection is necessary.
- Oversee and coordinate training, fit testing, and medical evaluations.
- Maintain records of training, fit testing, and medical evaluations.
- Ensure annual audits of the respiratory protection program are conducted.

Facilities Directors and Supervisors:

- Ensure appropriate employees use respiratory protection as required.
- Enforce program requirements and report non-compliance to the SECC.
- Notify the SECC if working conditions change and require a re-evaluation of respiratory protection needs.

Employees:

- Use respiratory protection in accordance with this program.
- Attend required training and fit testing sessions.
- Maintain and inspect their respirators as instructed.
- Notify supervisors of any equipment malfunctions or health concerns.

Respiratory Hazard Identification and Assessment

Hazard Evaluation:

- The SECC and FM Directors will conduct a comprehensive hazard assessment to identify tasks and areas where respiratory protection is required. This assessment will identify:
 - Types of hazardous substances (e.g., dusts, vapors, gases, mists).
 - Concentrations of airborne contaminants.
 - Oxygen-deficient environments.
 - Work processes or emergency situations where respiratory protection is necessary.

Monitoring and Reassessment:

- Periodic air monitoring will be conducted to ensure that respiratory hazards are properly controlled. If new hazards are identified, or if conditions change, the SECC will reassess respiratory protection requirements.

Selection of Respirators

Respirator Types:

- Bowie State University will provide respirators based on the specific hazards identified during the hazard evaluation. The selection will be made following OSHA guidelines and will include:
 - **Air-Purifying Respirators (APRs):** For protection against particulates, gases, or vapors.
 - **Powered Air-Purifying Respirators (PAPRs):** For enhanced comfort and protection in extended operations.
 - **Supplied-Air Respirators (SARs):** For use in oxygen-deficient atmospheres or when contaminant concentrations exceed the limits of APRs.
 - **Self-Contained Breathing Apparatus (SCBA):** For emergency situations and areas with unknown or immediately dangerous to life or health (IDLH) conditions.

Respirator Approval:

- All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH). Only respirators that have been approved and fit-tested shall be used.

Medical Evaluations

Medical Evaluation Requirement:

- Employees required to use respirators must undergo a medical evaluation prior to initial use to ensure they are physically capable of safely wearing respiratory protection. The evaluation will be conducted by a licensed healthcare professional (LHP).

Frequency of Medical Evaluations:

- Initial medical evaluations are mandatory before fit testing or respirator use.
- Additional evaluations will be required if the employee reports symptoms related to respirator use or if conditions affecting the employee's ability to use a respirator (e.g., weight gain, facial injury) change.

Fit Testing

Initial and Annual Fit Testing:

- Employees who are required to use tight-fitting respirators must undergo fit testing prior to initial use and annually thereafter. Fit testing will be conducted using either:
 - **Qualitative Fit Test (QLFT):** For negative pressure respirators.
 - **Quantitative Fit Test (QNFT):** For all tight-fitting respirators.

Additional Fit Testing:

- Fit testing must also be conducted when:
 - A different respirator is selected.
 - The employee experiences changes in physical condition (e.g., facial scarring, dental work) that may affect the respirator fit.

Respirator Use Procedures

Use Requirements:

- Employees must use respirators in situations where exposure to airborne contaminants cannot be adequately controlled by engineering or administrative controls. Supervisors will ensure that employees adhere to proper respirator use.

Facepiece Seal Protection:

- Employees using tight-fitting respirators must ensure a proper seal by following these guidelines:
 - No facial hair that interferes with the respirator seal.
 - No wearing of glasses or PPE that disrupts the facepiece seal.

Emergency Respirator Use:

- In the event of an emergency (e.g., chemical release, fire), employees must use the appropriate emergency respirators such as SCBAs. Emergency respirators must be inspected monthly and stored in a readily accessible location.

Respirator Maintenance and Care

Cleaning and Disinfection:

- Respirators must be cleaned and disinfected after each use following the manufacturer's instructions. Shared respirators must be cleaned and disinfected after each shift.

Inspection:

- Respirators must be inspected before each use and during cleaning.

- Emergency-use respirators (e.g., SCBA) must be inspected monthly and after each use.
- Inspection should include checking for damage, wear, and proper function (e.g., cracks in the facepiece, loose valves).

Storage:

- Respirators must be stored in a clean, dry, and sanitary location, protected from damage, contamination, and environmental conditions that could affect the integrity of the respirator.

Repair and Replacement:

- Respirators that fail to pass inspection must be removed from service and either repaired or replaced. Only qualified personnel will perform repairs using manufacturer-approved parts.

Training

Initial and Annual Training:

- All employees required to use respirators must receive training before their initial assignment and annually thereafter. Training will cover:
 - The need for respiratory protection and the risks of non-compliance.
 - The correct use, donning, and doffing of the respirator.
 - The limitations and capabilities of the respirator.
 - Proper maintenance, cleaning, and inspection.

Refresher Training:

- Refresher training will be provided if:
 - The employee demonstrates inadequate knowledge or improper use of the respirator.
 - There are changes in the types of respirators used or workplace conditions affecting respirator use.

Program Evaluation

Annual Program Review:

- The SECC will evaluate the effectiveness of the Respiratory Protection Program annually, making necessary adjustments to improve safety and compliance. This review will include employee feedback, assessment of exposure levels, and the effectiveness of respirator use.

Recordkeeping:

- Medical evaluations, fit test results, and training records will be maintained for each employee.
- Records must be retained for the duration of the employee's employment, plus an additional 30 years.

Contractor Compliance

All contractors working at Bowie State University are required to have their own respiratory protection programs in compliance with OSHA standards. Contractors must provide proof of training, fit testing, and medical clearance upon request.

Program Review and Updates

This respiratory protection program will be reviewed and updated annually or as necessary to reflect changes in job tasks, equipment, or regulations.

Appendix D: Fire Extinguisher Maintenance Plan

Objective:

To ensure all fire extinguishers are in operational condition, compliant with safety standards, and ready for use in case of an emergency.

Responsibilities:

Safety and Environmental Compliance Coordinator: Oversee the fire extinguisher maintenance program and ensure compliance with regulations.

Maintenance Personnel: Perform inspections, tests, and servicing as per the schedule.

Components of the Program:

I. Inspection Procedure:

a. Monthly Inspections:

- i. Check the pressure gauge to ensure it's in the green zone.
- ii. Ensure the fire extinguisher is in its designated location.
- iii. Inspect the pin and tamper seal to ensure they are intact.
- iv. Ensure the label is legible and accessible.
- v. Check the physical condition for signs of damage, rust, or leaks.
- vi. Verify the extinguisher is fully charged.
- vii. Confirm that the nozzle or hose is clear of any obstructions.

b. Annual Inspection:

- i. Perform all monthly inspections.
- ii. Weigh the extinguisher to ensure it is fully charged (for stored pressure types).
- iii. Check for any corrosion or damage that could affect performance.
- iv. Conduct a "function test" on the unit to ensure it is operational.

II. Maintenance & Servicing:

a. Every 5 Years (Hydrostatic Testing):

- i. For dry chemical and CO2 extinguishers, perform hydrostatic testing as required by NFPA 10 (National Fire Protection Association). This will test the structural integrity of the cylinder.
- ii. Recharge extinguishers as needed.

b. Every 6 Years:

- i. For non-rechargeable extinguishers, replace them after six years of service.

III. Record Keeping:

- a. Maintain a logbook of all inspections, tests, and maintenance activities, including:
 - i. Date of inspection.
 - ii. Findings (e.g., extinguisher condition, pressure readings).
 - iii. Actions taken (e.g., recharging, replacement).
 - iv. Name and signature of the person performing the inspection.

IV. Training:

- a. Employee Education: Provide annual training for selected staff on how to use fire extinguishers and recognize the signs that an extinguisher may need maintenance.
 - i. Facilities Maintenance

- ii. Public Safety
- iii. Lab Research staff
- b. Maintenance Staff: Ensure maintenance staff are properly trained in conducting inspections, maintenance, and repairs on fire extinguishers.
- c. Resident Assistant: Provide annual training for RAs on how to use fire extinguishers.

Task	Frequency	Ownership
Visual Inspection	Monthly	FM
Pressure Gauge Check	Monthly	FM
Tamper Seals Check	Monthly	FM
Hydrostatic Test	Every 5 years	Outside Contractor
Functional Test	Annually	FM
Record Keeping & Reporting	Ongoing	Safety Coordinator

Compliance Standards:

NFPA 10: Standard for Portable Fire Extinguishers

OSHA: Occupational Safety and Health Administration Standards

Emergency Replacement:

If an extinguisher is found to be damaged, leaking, or otherwise non-functional, it should be replaced immediately, and the issue logged.

Appendix E: Hazardous Waste Management Plan (HWMP)

Purpose and Scope

The purpose of this Hazardous Waste Management Plan is to establish procedures for the safe and compliant handling, storage, and disposal of hazardous waste generated at Bowie State University. The plan is intended to ensure protection of human health and the environment in accordance with federal, state, and local regulations.

This plan applies to all university departments and personnel who generate, handle, store, or dispose of hazardous waste on campus, including laboratories, maintenance areas, and any affiliated research facilities.

Regulatory References

- Resource Conservation and Recovery Act (RCRA)
- 40 CFR Parts 260–279 (EPA Hazardous Waste Regulations)
- Maryland Department of the Environment (MDE) regulations
- OSHA Hazard Communication Standard (29 CFR 1910.1200)

Definitions

Hazardous Waste:

- Any waste that is dangerous or potentially harmful to human health or the environment and meets the EPA criteria (characteristic or listed waste).

Generator:

- Any entity or location that produces hazardous waste.

Satellite Accumulation Area (SAA):

- Location at or near the point of waste generation where up to 55 gallons of hazardous waste can be accumulated.

Central Accumulation Area (CAA):

- Main storage area for hazardous waste awaiting disposal by a certified vendor.

Responsibilities

Safety and Environmental Compliance Coordinator

- Maintain and update this HWMP annually.
- Conduct training and audits.
- Serve as the liaison to regulatory agencies.
- Ensure proper labeling, storage, and disposal procedures are followed.

Department Heads / Supervisors

- Ensure departmental compliance with hazardous waste procedures.
- Notify the Safety Coordinator of any new hazardous materials used or wastes generated.

Employees / Lab Personnel

- Properly label and store waste.

- Attend mandatory hazardous waste training.
- Notify supervisor of spills or improper disposal.

Hazardous Waste Identification

All waste must be evaluated to determine if it is hazardous based on:

- **Ignitability** (Flash point < 140°F)
- **Corrosivity** (pH ≤ 2 or ≥ 12.5)
- **Reactivity** (unstable, explosive)
- **Toxicity** (fails TCLP test)
- **EPA-listed Wastes** (F, K, P, U lists)

Material Safety Data Sheets (SDS) and laboratory knowledge are used to make determinations.

Waste Accumulation and Storage

Satellite Accumulation Areas (SAA)

- Located near point of generation.
- Containers must be:
 - In good condition
 - Compatible with waste
 - Kept closed except during waste addition
 - Labeled with: **“Hazardous Waste”** and full chemical name(s)

Central Accumulation Area (CAA)

- Waste must be moved to CAA within 3 days of exceeding 55-gallon limit.
- Containers must be:
 - Inspected weekly
 - Labeled with accumulation start date
 - Segregated by compatibility
 - Secondary containment provided

Waste Labeling

All hazardous waste containers must include:

- The words **“Hazardous Waste”**
- Contents (full chemical names—no abbreviations)
- Hazard classification (flammable, corrosive, etc.)
- Accumulation start date (in CAA)

Waste Disposal

- Waste is picked up by a licensed hazardous waste contractor.
- Disposal is coordinated through the Safety and Environmental Compliance Office.
- Manifests are signed and retained for at least **three years**.

Emergency Procedures

- Spills are managed according to the university's **Spill Response Plan**.
- In the event of a major spill:
 - Evacuate the area
 - Notify Campus Public Safety
 - Call 911 if necessary
 - Contact the Safety Coordinator
- Emergency equipment (spill kits, eyewash, fire extinguishers) must be accessible.

Training

All hazardous waste generators must receive:

- **Initial training** upon assignment
- **Annual refresher training**
 - Topics include:
 - Waste identification
 - Labeling and storage
 - Emergency procedures
 - Personal protective equipment (PPE)

Training records are maintained for at least **three years**.

Inspections and Recordkeeping

- Weekly inspections of CAA and SAAs are conducted and documented.
- Inspection logs include:
 - Container condition
 - Labeling
 - Spill/leak presence
- Records retained:
 - Waste manifests (3 years)
 - Training records (3 years)
 - Inspection logs (3 years)

Program Review and Updates

- This plan will be reviewed annually.
- Updated to reflect changes in regulations, university operations, or audit findings.

Appendix F: Bowie State University Hazardous Waste Inspection Form

Inspect waste storage area, checking off inspection items as you go. Completed checklists should be archived so they may be produced in the event of an EPA inspection.

Building/Unit/Department: _____

Lab Supervisor/Safety Coordinator: _____ MM/YYYY: _____

Inspection Items	Weekly Inspection Dates				
	<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>	<i>Week 5</i>
Containers marked “Hazardous Waste”	Y/N				

Accumulation start date recorded	Y/N				
Containers free from leakage and spillage	Y/N				
Containers free from rust, bulges and damage	Y/N				
Containers closed when not adding waste	Y/N				
Containers compatible with waste	Y/N				
Incompatible wastes separated	Y/N				
Waste collection log completed for each container	Y/N				
Are safety provisions adequate (fire extinguisher, eye wash, grounding cables)	Y/N				
Total volume of waste less than 55 gallons	Y/N				
Spill kit with appropriate materials on hand	Y/N				
Retained hazardous waste (RCRA) training certificates and inspection checklists	Y/N				
Retained copies of signed manifestos, land disposal restriction forms and waste analyses for minimum of 5 years	Y/N				
Number of containers in storage site:	Y/N				
Inspector's Name/Initials:		Date of Inspection:			