University of Arkansas for Medical Sciences

Part III - Hazardous Materials and Waste Management Plan

FY27

I. MISSION STATEMENT

The purpose of the Hazardous Materials and Waste Management Plan is to identify and manage materials known by virtue of health, flammability, or reactivity rating to have the potential to harm humans or the environment. The plan also addresses education and procedures for safe use, storage, disposal and management of hazardous materials and waste.

The mission of UAMS is to improve the health, health care and well-being of Arkansans and of others in the region, nation and the world by:

- Educating current and future health professionals and the public.
- Providing high-quality, innovative, patient- and family-centered health care and also providing specialty expertise not routinely available in community settings; and
- Advancing knowledge in areas of human health and disease, translating and accelerating discoveries into health improvements.

II. SCOPE

The Hazardous Materials and Waste Management Plan establish the parameters within which hazardous materials and waste are handled, stored and disposed of at UAMS. This plan addresses administrative issues such as maintaining chemical inventories, storage, handling and use of hazardous materials, exposure monitoring, reporting requirements, specific responsibilities, and employee education programs. These and other elements of the Hazardous Materials and Waste Management Plan are all directed toward managing the activities of the employees, so the risk of injuries to patients, visitors and employees is reduced, and employees can respond appropriately in emergencies.

III. AUTHORITY / REPORTING RELATIONSHIPS

The UAMS Safety Coordinating Committee (SCC) has authority to coordinate and administer the UAMS Hazardous Materials and Waste Management Plan and its resulting policies and procedures. Program implementation is the responsibility of the Environmental Health and Safety (EH&S) Department. The UAMS Environmental of Care (EOC) Committee, a subcommittee of the Safety Coordinating Committee establishes goals and responsibilities which are developed and reviewed as part of the annual evaluation and includes representatives from Environmental Health and Safety, Engineering & Operations, Planning, Design & Construction, Clinical Engineering, Telecommunications, Police Department, and Environmental Services.

The Environment of Care Committee is responsible for directing the Hazardous Materials and Waste Management program, including an ongoing, organization-wide process to minimize risk and threat to the welfare of patients, visitors, and employees.

The Environment of Care Committee has been given authority by the Chancellor to organize and implement the Hazardous Materials and Waste Management Plan. The

Environment of Care Committee will evaluate the trends and information gathered by the committee, develop appropriate policies and procedures, understand applicable regulations and evaluate the effectiveness of the hazardous materials program and its components on an annual basis. Responsibilities of the Environment of Care Committee include reporting significant findings to the Safety Coordinating Committee.

IV. OBJECTIVES

1. Increase staff knowledge of hazardous materials used and how to protect themselves from these hazards.
2. Maintain accurate inventories of hazardous materials in the work area.
3. Ensure investigation and clean-up of any hazardous materials spill or release.
4. Ensure investigation of potential exposures to chemical related hazardous materials.
5. Increase staff knowledge of their role in the event of a hazardous materials spill or release.
6. Increase staff knowledge of location and use of Safety Data Sheets (SDS).

V. INTENT PROCESSES

A. Selecting, handling, storing, using, disposing of hazardous materials/waste- Department Directors and/or Managers are responsible for evaluating and selecting hazardous materials. The EH&S department will work with directors and managers on the correct handling, storing, and using and disposal of hazardous materials.

Materials are handled, stored, and disposed of in accordance with the Safety Data Sheet (SDS), policies included in the UAMS Hazardous Materials and Waste Program, in addition to the guidelines for the use of radiation, and applicable laws and regulations.

B. Applicable Law and Regulation – UAMS ensures that hazardous materials are used, stored, monitored, and disposed of according to applicable law and regulation, which includes, but is not limited to the following:

- OSHA Hazard Communication Standard
- OSHA Bloodborne Pathogens Standard
- OSHA Formaldehyde Standard
- OSHA Ethylene Oxide Standard
- OSHA Personal Protective Equipment Standard
- OSHA Occupational Exposure to Hazardous Chemicals in Laboratories
- EPA Regulations
- DOT Regulations
- Arkansas State Board of Health Rules for Control of Sources of Ionizing Radiation

Department Directors and/or Managers are responsible for conducting an annual inventory of hazardous materials. SDSs' are available and employees are instructed on their location and use. The UAMS Hazard Communication Program establishes methods for labeling hazardous materials in the departments.

C. Managing Chemical, Pharmaceutical, Radioactive, Regulated Medical, and Infectious Waste- The control of hazardous waste is the responsibility of the generating department. The department Director and/or Manager is responsible for identifying all waste generated in their department and ensuring compliance with disposal procedures, applicable laws and all UAMS policies and guidelines. The department of Environmental

Health & Safety (EH&S) is responsible for ensuring the safe transport of hazardous waste out of departments and the appropriate method of disposal is used.

Detailed information concerning specific disposal plans can be found in the institution's Hazardous Waste Management Plan, Radiation Safety Plan and Biosafety Plan.

D. Monitoring and Disposing of Hazardous Gases and Vapors- UAMS develops and implements a schedule for monitoring exposure to hazardous gases and vapors. The OH&S Industrial Hygiene Officer manages the monitoring in accordance with nationally recognized test procedures. Off cycle monitoring may be performed anytime there is reason to believe exposures may have changed or prior data is no longer representative.

Gases and vapors that are monitored include, but are not limited to:

- Formaldehyde (annually)
- Xylene (annually)
- Waste anesthetic gases (tri-annually)
- Methylene Chloride (at least every 5 years or as needed)

E. Storage of Hazardous Materials and Waste- Hazardous process waste streams (i.e., spent/mixed waste) are collected within the laboratory(ies) of the generating department. This waste is then transported out of the department to the hazardous waste storage area located outside the Central Building in the hazardous materials storage area. A licensed hazardous waste disposal company conducts transportation offsite and disposal. The Chemical Hygiene Officer (or delegate) performs weekly inspections of the hazardous waste storage area.

Hazardous chemicals needed to perform laboratory operations are stored in the associated laboratory. Storage of these hazardous chemicals shall be in accordance with the guidance given in the UAMS Chemical Hygiene Plan. When hazardous chemicals in their original containers are determined to be "unwanted material", the department Director and/or Manager shall submit a work order to EH&S for evaluation and disposal.

Chemical and pharmaceutical waste are managed by the EH&S Chemical Hygiene Officer. Regulated medical and Infectious wastes are managed by the EH&S Biological Safety Officers. The EH&S Radiation Safety Officers manages radioactive waste.

F. Reporting of hazardous materials/waste spills, exposures, and other incidents- Spills and other incidents should be reported to EH&S. This reporting can be performed by contacting EH&S directly or by contacting the Campus Operations Call Center. The UAMS Incident and Injury Report form documents exposures resulting from hazardous material spills. One of the following investigates hazardous materials spills: the UAMS Chemical Hygiene Officer, Biological Safety Officer, Radiation Safety Officer, Industrial Hygiene Officer, and/or the Fire and Life Safety Officer. Recommendations are made based on the investigation.

Exposures to levels of hazardous materials in excess of published standards are documented using the UAMS Incident and Injury Report form.

G. Emergency Procedures- Emergency procedures for hazardous materials and waste are described in the various UAMS safety manuals: Hazardous Materials and Waste Management Plan, Chemical Hygiene Plan, Biosafety, Radiation Safety, Exposure Control, and Laboratory Safety. These plans include procedures for cleanup of spills of chemicals, radioactive materials, mercury, potentially infectious medical waste, and

chemotherapy. Large chemical spills or hazardous material release would initiate a Hazardous Emergency Spill Response and HAZMAT qualified individuals would be involved.

VI. ORIENTATION AND EDUCATION

A. New Employee Orientation: New employees are trained on the UAMS Hazard Communication Program during New Employee Orientation. Training is through self-directed computer-based learning modules. includes information on the availability of the program, how to use a Safety Data Sheet (SDS), labeling requirements of hazardous material containers, and the use of engineering controls, administrative controls, and the use of personal protective equipment (PPE).

B. Annual Continuing Education: The Annual Continuing Education Program for UAMS includes self-directed computer-based learning modules. These modules contain learning materials and tests. These modules can be used by individual employees or as a guide for group presentations. Directors or Managers determine the most appropriate method of instruction for employees in their department or unit. Modules are reviewed and/or revised as necessary. New modules are developed when the need is identified.

C. Department Specific Training: Directors/Managers are responsible for ensuring that new employees are oriented to departmentally specific hazardous materials. This training shall be documented and may include but is not limited to: the safe handling, use and storage of hazardous materials; spill procedures; PPE; and health and safety hazards of the materials in their department. Department specific policies are developed and implemented at the department level to provide information to employees regarding hazardous materials procedures in their department.

Department Directors and Managers are responsible for orienting new employees to the department and informing them of specific hazardous materials and waste procedures. Directors and Managers will train their employees in departmental or job-related hazardous materials and waste procedures or precautions. Directors and Managers are provided with appropriate Hazardous Materials and Waste Program guidelines and are directed to maintain a current awareness of the Hazardous Materials and Waste Program, and to ensure its effective implementation within his or her department.

Each employee is responsible for following the guidelines set forth in the Hazardous Materials and Waste Program. Employees complete annual education regarding hazardous materials and waste in the workplace and are responsible for understanding how the material relates to his or her specific job requirements.

D. Contract Employees: Assessment and education are done at the time of assignment for the Hazardous Materials and Waste Program.

VII. INFORMATION COLLECTION & EVALUATION (ICES) - Performance Monitoring

A. UAMS conducts ongoing performance monitoring. The following performance monitors have been established as follows:

1. Measure number of chemical spills for trending. This will include spills in research, academic and clinical settings. Information is reported quarterly to the Environment of

Care and Safety Coordinating Committees. Training will be offered where appropriate. The goal is an annual average of ≤ 1 per quarter.

2. Measure the amount of bio-hazardous waste generated per adjusted patient day. The goal of FY26 is to continue to reduce the amount of regulated medical waste generated per adjusted patient day. The goal is ≤ 1.50 pounds per adjusted patient day.

B. The Chemical Hygiene Officer, Biological Safety Officers, Radiation Safety Officers and the Director of Occupational Health & Safety oversee the development of performance monitors for the hazardous materials program. Hazardous materials management reports to the EOC every quarter. Annually, the data from the Environment of Care performance monitors are analyzed and prioritized to select at least one recommendation to be made to the leadership of UAMS for a performance improvement activity in the Environment of Care

VIII. ANNUAL EVALUATION

A. The Environment of Care Committee Chairman has overall responsibility for coordinating the annual evaluation process with each of the five functions associated with the management of the Environment of Care. The Chemical Hygiene Officer performs the evaluation and submits it to the EOC Committee. The annual evaluation examines the objectives, scope, performance, and effectiveness of the Hazardous Material and Waste Program.

B. The annual evaluation is distributed to the Safety Coordinating Committee, Chancellor, Vice Chancellor for UAMS Health, Board of Trustees and other department managers as appropriate.