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University of Arkansas for Medical Sciences Environment of Care Management Plans

Part I Safety Management Plan

Part II Security Management Plan

Part III Hazardous Materials and Waste Management Plan

Part IV Fire Prevention & Life Safety Management Plan

Part V Medical Equipment Management Plan

Part VI Utility Systems Management Plan

List of applicable buildings:

Central Building (Business) Site ID 18696
Ward Tower (HAP) Site ID 18696
Hospital (HAP) Site ID 18696
Psychiatric Research Institute (HAP) Site ID 18696
Jones Eye Institute (AMB) Site ID 18696
MRI (AMB) Site ID 18696
Out Patient Center (AMB) Site ID 18696
UAMS Sleep Lab (Off site Business Class) Site ID 525518
University Women's Clinic (Off site Business Class) Site ID 258911
University Women's Health Center (Off site Business Class) Site ID 125240

University of Arkansas for Medical Sciences Part I - Safety Management Plan FY20

I. MISSION STATEMENT

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.

Consistent with the UAMS mission, values and philosophy, the Safety Coordinating Committee, Medical Staff, and Administration has established and provides ongoing support for the Safety Management Program described in this plan.

The purpose of the Safety Management Plan is to define methods/processes for the identification and management/minimization of the inherent safety risks associated with our healthcare operations. The plan establishes the parameters within which a safe environment of care is developed, maintained and improved. This plan also addresses specific responsibilities and employee education programs.

II. SCOPE

The Safety Management Plan addresses specific responsibilities and employee education programs. These and other elements of the Safety Management Plan are all directed toward managing the activities of the employees so the risk of injuries to patients, visitors and employees are reduced, and employees can respond appropriately in emergencies.

III. AUTHORITY / REPORTING RELATIONSHIPS

The Safety Coordinating Committee (SCC), its members and Chairman are appointed by the Chancellor, and shall act as the administrative body for coordination and/or implementation of the Safety Management Program campus wide. Four sub-committees to the SCC are also appointed by the Chancellor to facilitate the activities of the Safety Committee. (Appendix I) One of the most critical functions of the SCC is the coordination of the programs involved with Joint Commission Environment of Care (EC) compliance. The Safety Coordinating Committee shall meet at least quarterly or by call of the Safety Coordinating Committee chairman appointed by the Chancellor. The Safety Coordinating Committee shall evaluate recommendations of the four sub-committees and act as the recommending body through the Chancellor to the University Of Arkansas Systems Board Of Trustees for final approval.

The standing members of the SCC shall consist of the chairman of each Safety sub-committee or a representative, the Director of Occupational Health and Safety and a representative of each of the campus colleges. Other members serve as permanently invited guests. The Safety Coordinating Committee shall be multidisciplinary in that the colleges and hospital shall have representation on the committee.

The written Safety Management Plan is maintained and updated as needed with the approval of the SCC. The Plan's purpose is to effectively manage the environmental safety of patients, staff, and other people coming to the UAMS Hospital and campus.

The Occupational Health and Safety Director has been appointed by the Chancellor as Safety Officer (Appendix II) and in that capacity has the authority to inspect, review, and recommend for correction any discrepancies noted in the safety and health codes and standards as set forth by the authorities having jurisdiction. (UAMS Medical Center Policy A.4.01). As per that policy the Director or his or her designee may take appropriate action, including evacuation of facilities and terminating hazardous operations, whenever conditions pose an immediate threat to life or health or threaten damage to equipment or buildings. The Safety Officer participates on the three Emergency Preparedness Committees for the campus.

SAFETY SUB-COMMITTEES AND FUNCTIONS

A. RADIATION SAFETY COMMITTEE

PURPOSE AND FUNCTION

The Radiation Safety Committee meets quarterly and is charged with the responsibility of evaluating, approving, monitoring, and correcting hazards associated with the use of ionizing radiation from any source.

ORGANIZATION AND RESPONSIBILITY

The Chancellor, in conformity with the requirements specified in Arkansas radiation control regulations, appoints at least three members. The Committee membership represents an authorized user of each type of radioactivity as well as representatives from administration and nursing.

The Radiation Safety Officer (RSO) derives authority from the Chancellor and is directed by actions taken by the Radiation Safety Committee. The RSO reports within the Department of Occupational Health and Safety.

All MRI operations fall under the purview of the Department of Radiology and their policies. The Department of Radiology's procedures define how the hospital manages magnetic resonance imaging (MRI) safety risks associated with patients. These safety risk may include: patients who may experience claustrophobia, anxiety, or emotional distress, patients who may require urgent or emergent medical care, patients with medical implants, devices, or imbedded metallic foreign objects (such as shrapnel), ferromagnetic objects entering the MRI environment, and acoustic noise. The Department of Radiology also ensures that the hospital manages the magnetic resonance imaging (MRI) safety risks by restricting access of everyone not trained in MRI safety or screened by staff trained in MRI safety. Controlled areas, i.e., scanner room and the area that immediately precedes the entrance to the MRI scanner room, are by and under the direct supervision of staff trained in MRI safety, and signage is posted at the entrance to the MRI scanner room that conveys that potentially dangerous magnetic fields are present in the room. The signage indicates that the magnet is always on except in cases where the MRI system, by its design, can have its magnetic field routinely turned on and off by the operator.

The responsibilities of the Radiation Safety Committee are:

Review and grant or deny permission for the use of radiation sources within this institution
from the standpoint of radiological health and safety of patients, personnel and other factors,
which the committee may wish to establish.

- Prescribe special conditions that will be required during a proposed use of radiation sources such as requirements for bioassays and physical examinations of users, and minimum level of training and experience of users.
- Receive and review records and/or reports from the Radiation Safety Officer or other individuals delegated responsibility for health physics practices.
- · Recommend remedial action to correct safety infractions.
- Formulate and review the institutional training programs for the safe use of radiation sources.
- Maintain written record of actions taken by the committee.
- Inform the Director of Radiological Health Division of the Arkansas State Board of Health of any changes in committee membership.

The responsibilities of the Radiation Safety Officer are:

- Provide consulting services on all aspects of radiation protection.
- Maintain radiation exposures at the lowest possible level by the supervision or operation of an effective and appropriate radiation safety and control program.
- Develop and maintain a procedure for personnel and area monitoring, and maintain the records attending these actions.
- Conduct educational programs for instruct employees and students in the proper procedures and the type of equipment necessary for the safe use of radiation sources.
- Establish and maintain procedures for the safe disposal of radioactive materials.
- Supervise periodic leak testing of sealed radioactive sources.
- Furnish all authorized users of radioactive materials a copy of the Radiation Safety Manual and inform them of relevant sections of the State regulations as well as periodic changes.
- Review all safety incidents in MRI with the Department of Radiology.

B. INSTITUTIONAL BIOSAFETY COMMITTEE

PURPOSE AND FUNCTION

The committee shall meet at least quarterly or as called to review and evaluate investigator-generated safety protocols for the proposed use of bio-hazardous agents. Based on this review, the Institutional Biosafety Committee (IBC) shall approve or disapprove the safety protocols with periodic reports to the Safety Coordinating Committee. In addition, the Biosafety Committee shall make recommendations to the Safety Coordinating Committee regarding biohazards that may exist or arise on the UAMS campus.

2. ORGANIZATION AND RESPONSIBILITY

The IBC shall be composed primarily of research personnel with appropriate expertise in infectious agents, toxicology, recombinant DNA, animals, and/or human gene therapy. In accordance with NIH/CDC guidelines, membership of the IBC should also include the Institutional Safety Officer and two members who represent the interests of the community at large. The committee members and its chairman shall be appointed by the Chancellor. The committee chairman, or his/her designee, shall be empowered to sign for the committee to approve biohazard safety protocols on appropriate institutional forms.

Bio-hazardous agents shall include:

- Infectious agents at biosafety level-2 (BL-2) or higher, including bacteria, viruses, mycotic agents, parasites, prions, and virus-shedding tumor cells
- Highly toxic compounds
- DNA recombination involving BL-2 or higher organisms or genes
- Gene therapy of humans (whether or not the rDNA reagent is generated at UAMS)

Responsibilities of the principal Investigator include:

- Principal investigators proposing the use of bio-hazardous agents shall formulate safety protocols, as requested by the Biosafety Committee, detailing special procedures for the safe handling, storage, and disposal of such agents and other requested information.
- It is the responsibility of the principal investigator to ensure that laboratory personnel, including animal research facility personnel, if appropriate, are so informed.

C. CLINICAL LASER COMMITTEE

PURPOSE AND FUNCTION

The Clinical Laser Committee has joint responsibility to the UAMS Medical Board and the UAMS Safety Coordinating Committee, and is charged with the responsibility of evaluating, approving, monitoring, and correcting hazards associated with the use of all lasers on campus. The LSC meets as needed and reports activities to the SCC.

ORGANIZATION AND RESPONSIBILITY

The committee members are appointed by the Chairman of the Clinical Laser Committee. The UAMS Laser Safety Officer (LSO) is a member of both the Clinical Laser Committee and the Safety Coordinating Committee, and reports at least quarterly to the SCC on activities. The Laser Safety Officer (LSO) derives authority from the Chairman of the Clinical Laser Committee, who is appointed by the Chancellor, and is directed by actions taken by the Interventional Services Committee.

The responsibilities of the Laser Safety Committee are:

- Advise the credentialing committee when questions arise regarding applications for laser credentialing within this institution from the standpoint of health and safety of patients and personnel.
- Prescribe special conditions that will be required during a proposed use of a laser source such as requirements for protective equipment and minimum level of training and experience of users.
- Receive and review records and reports from the Laser Safety Officer or other individuals delegated responsibility for laser safety practices.
- Recommend remedial action to correct safety infractions.
- Formulate and review the institutional training programs for the safe use of laser sources.
- Maintain written records of actions taken by the committee.
- Review requests for new lasers.

The responsibilities of the Laser Safety Officer are:

- Provide consulting services on all aspects of laser protection.
- Acts as liaison to SCC and reports laser related activities quarterly to SCC.

D. MEDICAL EQUIPMENT MANAGEMENT COMMITTEE

PURPOSE AND FUNCTION

The Medical Equipment Management Committee is a multi-disciplinary group that oversees the maintenance and acquisition of medical equipment.

Duties include:

- Review the medical equipment management plan
- Review and Approve all new medical equipment purchases

- Discuss any new technology's, EMR integrations, and vulnerabilities
- Provide strategic planning
- Reviews medical equipment maintenance report
- Discuss any medical equipment related issues

2. ORGANIZATION AND RESPONSIBILITY

The committee is comprised of the following representatives:

- Clinical Engineering "Committee Chair"
- Nursing
- IT
- Procurement
- Finance
- Supply chain
- Campus Ops
- Value Analysis
- Nursing Education

Each new item approved for purchase is verified against the approved list of UAMS capital. New items are also approved by committee reps to insure that all affected departments are aware and can provide input if additional needs are required.

E. WORKER SAFETY COMMITTEE

PURPOSE AND FUNCTION

The committee reviews incident /injury reports to look for trends and root cause of incidents and injuries. The functions of the Committee include:

- Developing or updating policies and providing required reports to the SCC regarding specific worker safety issues.
- Evaluating unsafe job-related equipment or processes and recommending solutions to eliminate potentially unsafe work conditions for UAMS employees.
- Recommending replacement of unsafe equipment with safer equipment.
- Assessing worker-training needs.

ORGANIZATION AND RESPONSIBILITY

Committee membership is composed of representatives from Occupational Health & Safety, Human Resources, Materials Management, Nursing, Employee Health/Student Preventive Health Services and various other representatives as appropriate. The committee will meet as often as necessary, but at least quarterly with reports presented to the Environment of Care and Safety Coordinating committees.

F. ENVIRONMENT OF CARE COMMITTEE

PURPOSE AND FUNCTION

This committee is charged with the responsibility of evaluating, approving, monitoring, and correcting hazards associated with the environment of care for patients, staff members and other individuals.

2. ORGANIZATION AND RESPONSIBILITIES

Committee membership will be composed of the Directors and/or their representatives of each area in the environment of care and other critical areas: Safety, Engineering & Operations, Clinical Engineering, Design and Construction, Clinical Environmental Services, Technology Services and Support and the Police. The committee chairman will be appointed by the Chancellor. The committee will meet as often as necessary, but at least quarterly, and will report all pertinent indicators through the Safety Coordinating Committee structure.

Effective management of the environment of care includes using processes and activities to:

- Reduce and control environmental hazards and risks
- Prevent accidents and injuries
- Maintain safe conditions for patients, visitors and staff
- Maintain an environment which is sensitive to patient needs for comfort, social interaction, positive distraction, and self-control; and
- Maintain an environment which minimizes unnecessary environmental stresses for patients, visitors and staff

IV. OBJECTIVES

- 1. Develop and implement department specific safety policies and education.
- 2. Monitor, track and trend employee injuries throughout the medical center and campus.
- 3. Effectively utilize building and laboratory audits and environmental tour data to maintain a safe working environment for staff, students, patients and visitors.
- 4. Develop and implement employee and contractor knowledge of the Safety Management Program.

V. INTENT PROCESSES

A. Risk Assessments - UAMS pro-actively performs risk assessments to evaluate the impact of proposed changes to new or existing areas of the organization. The goal of performing risk assessments is to reduce the likelihood of future incidents or other negative experiences that have the potential to result in injury, an accident, or other loss to patients, employees, or hospital assets. Potential safety issues are reported and discussed in the Safety Committee meetings, along with all-pertinent data and alternatives. Based on the committee's evaluation of the situation, a decision by management of the issue is reached.

Results of the risk assessment process are used to create new or revise existing safety policies and procedures, environmental tour elements in the area affected, safety orientation and education programs, or safety performance improvement standards.

B. Incident Reporting and Investigation- The Safety Management Program documents patient and visitor incidents, employee incidents, and property damage. Patient and visitor incidents are reported in the UHC Safety Intelligence Electronic Reporting System powered by Datix. Reports of patient and visitor incidents are directed to the Department of Patient Safety and are reported through the Adverse Event Review and Evaluation Committee and the Quality, Experience, Safety Team (QUEST) Committee.

Reports of employee injuries and incidents are directed to the Occupational Health & Safety Department and the Workers Compensation Department in Human Resources. Reports of property damage are directed to the Chief of Police and Occupational Health & Safety.

Occupational Health & Safety and/or the Police Department perform an analysis of these incidents. The findings of this analysis are reported to the Safety Committee. The incident analysis is intended to provide an opportunity to identify trends or patterns that can then be used to identify necessary changes to the Safety Management Program in order to control or prevent future occurrences.

C. Environmental Tours- The Safety Officer or his/her designee actively participates in the management of the environmental tour process. Environmental Tours are conducted to evaluate employee knowledge and skill, observe current practice, and evaluate environmental conditions. Results from environmental tour activities serve as a tool for improving safety policies and procedures, orientation and education programs, and employee performance. The Safety Officer or his/her designee provides the SCC Committee through the Environment of Care Committee with summary reports on activities related to the environmental tour process.

Environmental Tours at UAMS are conducted every six months in all areas where patients are served and at least annually in all areas where patients are not served.

Individual department managers are responsible for initiating appropriate action to address findings of the environmental tour process. Environmental Tours are used to monitor employee knowledge of safety. Answers provided during random questioning of employees during the survey, are analyzed and reports submitted to the Environment of Care Committee (EOC), and as appropriate to the SCC Committee.

- D. Product/Medication/Equipment Safety Recalls- Information regarding a recalled product, medications or equipment is distributed to all user departments in a timely manner. It is the responsibility of the Environment of Care Committee and SCC to review recall and alert compliance.
- E. Examining Safety Issues- The SCC membership consists of the chairman of each Safety sub-committee or a representative, the Director of Occupational Health and Safety and a representative of each of the campus colleges. Other members serve as permanently invited guests. The SCC is multidisciplinary in that the colleges and hospital shall have representation on the committee to share progress, ideas and successes and evaluate/plan improvements in the program.
- F. Policies and Procedures- The Safety Officer is responsible for coordinating the development of general safety policies and procedures. Individual department managers are responsible for managing the development of departmental specific safety policies and procedures. Departmental specific safety policies and procedures address safe operations, use of hazardous equipment, and use of personal protective equipment. The Safety Officer assists department managers in the development of new department safety policies and procedures.

System-wide safety policies and procedures are distributed to all departments. Department Directors and/or Managers are responsible for distribution of department level policies and procedures to their employees. The Safety Officer and department managers are responsible for ensuring enforcement of safety policies and procedures. Each employee is responsible for following safety policies and procedures.

System-wide and departmental safety policies and procedures are reviewed at least every three years or as necessary. Some policies/procedures will be reviewed more often if driven by a requirement of a regulatory standard (i.e., BBP, TB Control Plan, Hazard Communication, etc.). Additional interim reviews may be performed on an as needed basis.

G. Safety Officer Appointment- The Chancellor at UAMS is responsible for managing the Safety Officer appointment process.

If the Safety Officer position should become vacant, the Chancellor is responsible for selecting a qualified individual capable of overseeing the development, implementation, and monitoring of the Safety Management Program. By appointment, the incumbent Safety Officer is assigned overall operational responsibility for the Safety Management Program. The Safety Officer performs those functions normally associated with a Safety Officer and is guided by a written job description.

- **H.** Intervention Authority- The SCC Chairperson and Safety Officer or their designee has been given authority by the Chancellor to intervene whenever conditions exists that pose an immediate threat to life or health or pose a threat of damage to equipment or buildings. Any suspension of activity shall immediately be reported to the Chancellor or his representative.
- I. Grounds and Equipment- The Operational Support Services and Engineering and Operations Departments are responsible for scheduling and performing maintenance of hospital grounds and external equipment. Policies and procedures for this function are located in the respective department.

VI. EMPLOYEE HEALTH AND WELFARE

- A. Department Directors and Managers are responsible for implementing and enforcing employee workplace safety. Directors and Managers are provided with appropriate safety program guidelines and are directed to maintain a current awareness of the Safety Program, and to ensure its effective implementation within their department. Each employee is responsible for attending safety education programs and for understanding how the material relates to his or her specific job requirements. Employees are responsible for following the safety guidelines set forth in the Safety Program.
- **B.** Employees complete the Incidence and Injury report. Reports of employee incidents are directed to the Occupational Health and Safety and the Human Resources Worker Compensation Department for trending and reporting to the SCC.
- **C.** Historical data will allow UAMS to review and analyze the following indicators:
 - 1. Number of OSHA recordable injuries.
 - 2. Injuries by cause.
 - 3. Injuries by body part.
 - 4. Needlestick and body fluid exposures.

VII. ORIENTATION AND EDUCATION

- **A. New Employee Orientation:** The Safety Education/Orientation and Training program begins with the New Employee Orientation program for all new employees, and continues on an ongoing basis with departmental-specific safety training, job-specific safety training, and a series of programs required for all employees on an annual basis.
- B. Annual Continuing Education: The Annual Continuing Education Program for UAMS includes self-directed computer based learning modules and departmental specific in-service training sessions. 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 departmental specific safety policies and procedures and specific job related hazards
- **D. Contract Employees:** Assessment and education is done at the time of assignment regarding safety management.

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

- **A.** At UAMS, ongoing performance monitoring is conducted. The following performance monitors have been established as follows:
 - Measure compliance identified during environmental tour inspections. The goal for FY19/20 is 90% compliance on environmental rounds audit. This is an ongoing measure of environmental tours.
 - 2. Measure compliance for annual safety education for employees and staff. The goal for compliance will be 90%.
 - 3. Reduce the number of reported sprains/sprains due to patient lifting/manipulation by 2.5% of the reported 2017 data.
- **B.** The Safety Officer oversees the development of performance monitors for the Safety Coordinating Committee. Data from these performance monitors are reported at least quarterly to the SCC. Performance Indicators are reported annually to the Chancellor, Vice Chancellor for Clinical Programs, Board of Trustees, Medical Director and other department managers as appropriate. Annually, the data from all 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.

IX. ANNUAL EVALUATION

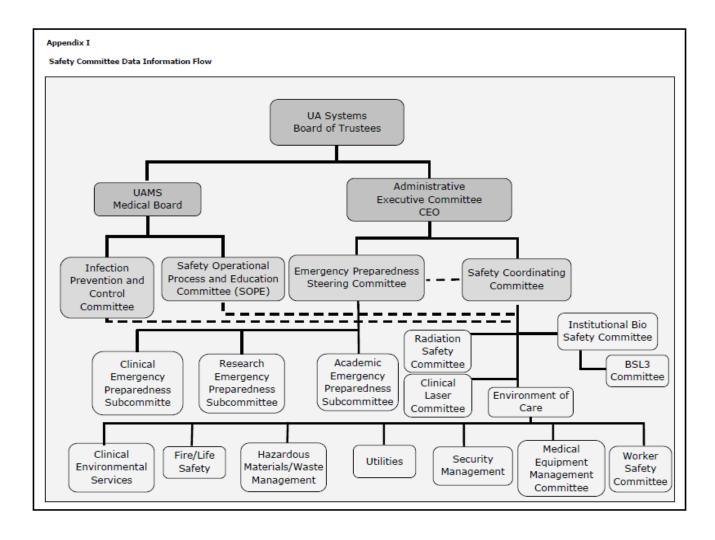
- **A.** The Safety Officer has overall responsibility for coordinating the annual evaluation process with each of the five functions associated with managing the Environment of Care. The annual evaluation examines the objectives, scope, performance, and effectiveness of the Safety Management Program.
- **B.** The annual evaluation is presented to the SCC by the end of the first quarter of each year. The SCC reviews and approves the report. The deliberations, actions, and recommendations of the SCC Committee are documented in the minutes. The annual evaluation is distributed to the Chancellor, Vice Chancellor for Clinical Programs, Board of Trustees, Medical Director and other department managers as appropriate. This finalizes the evaluation process.

X. SMOKING POLICIES-

Administrative Guide, Policy Number: 3.1.01, Policy Title: Smoking/Tobacco Use UAMS Medical Center Policies and Procedures, Policy Number: PS.1.09, Policy Title: Patient Smoking and Tobacco Use

The University of Arkansas for Medical Sciences (UAMS) is committed to promoting health, wellness, prevention and the treatment of diseases within the community as well as to providing a safe, clean and healthy environment for our patients, visitors, employees and students. It is UAMS's policy to provide a totally tobacco free work environment. UAMS is committed to providing helpful intervention strategies and treatment resources in addressing

this issue and to offering programs to assist patients, students, current employees to reduce their dependence on tobacco products.



University of Arkansas for Medical Sciences Environment of Care Committee Dashboard FY 2019-2020 Performance Measure Objective 18/19 Qtr 1 Qtr 2 Qtr 3 19/20 Significant Findings Oct-Dec Jul-Sep Jan-Mar Apr-Jun Avg. Avg. I. Safety Management Safety Education – 95.7% CLP/ICE Fire & Life Safety =90% 97.9% Radiation Safety >=90% 93.4% Laboratory Safety >=90% Annual Safety 94.2% =90% II. Security Management Assaults <=4 3.00 Thefts/Larceny <=40/qt 36.22 Workplace Violence <=2 III. Hazardous Materials Evidence of Education Based on Biohazardous Waste Disposal Per Adjusted Patient Day <=1.5 lbs. Number of Chemical Spills on Campus <=1 IV. Life Safety Emergency Preparedness n/a n/a n/a n/a n/a =90% 80.859 Corridor Clutter =90% 74.83 Door Gaps =90% Expired Supplies >=90% Smoke/Fire wall damage 92.63% n/a n/a n/a n/a n/a =90% Increased Cleanliness 91.60% n/a =90% n/a n/a n/a n/a Air Pressure Relationships =90% 94.35% n/a n/a n/a Door Compliance 92.23% n/a n/a >=90% n/a n/a n/a V. Medical Equipment Life Support Equipment PMs completion 100% 100.00% Non-life support equipment PMS completion rate 100% 98.00 Clinical Engineering training competency 100% 100.00% Number of Hazardous Spills in Tube System <=1 Monitor Abuse/Misuse of equipment <50 91.50 Monitor Operator Errors <25 VI. Utilities Utility Failure Analysis- preliminary resolution within 1 week and final report within 1 month >= 100% 100.00% Life Support Utilities preventative maintenance completions >= 100% 91.689 Joint Commission Documentation >= 100% 91.689 99.36% n/a >=100% n/a n/a n/a n/a Generator runs to determine if testing meets requirements

Did not meet benchmark

Benchmark missed by slight margin

Meets benchmark

Office of Chancellor

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Main: 501-686-5681 Fax: 501-686-8137

University of Arkansas for Medical Sciences

UAMShealth.comCam Patterson, M.D., M.B.A.

Chancellor

July 15, 2019

Carol Price, Director Occupational Health & Safety University of Arkansas for Medical Sciences Little Rock, AR 72205

Dear Ms. Price,

On recommendation of Brian Cotten, Associate Vice Chancellor of Campus Operations and in your capacity as Director, Occupational Health & Safety, I am appointing you chair of the UAMS Safety Coordinating Committee (SCC). The Safety Coordinating Committee through its sub-committees has the authority to act as the administrative body for coordination and/or implementation of safety policies campus wide.

One of the most critical functions of the SCC is the coordination of the programs involved with the Joint Commission Environment of Care (EOC) compliance program. Marlon Joiner, Director of Engineering & Operations and Chairman of the EOC will be available to assist you in your duties as chair of the SCC

Sincerely,

Cam Patterson, M.D., MBA

Chancellor

University of Arkansas for Medical Sciences

Part II - Security Management Plan FY20

I. MISSION STATEMENT

The objective of the UAMS Security Management Plan is to provide a safe & secure environment for employees, students, patients and visitors, of the University Of Arkansas for Medical Sciences, as well as to minimize the risk of injury or property loss due to criminal activity, or work place violence.

The mission, values and philosophy of the UAMS Police Department and UAMS are to create a comprehensive system to provide health care and related services including education and research for the benefit of the people it serves. Consistent with the mission, values and philosophy of UAMS campus Deans, Medical Staff, and Administration has established and provide ongoing support for the Management Program set out in this plan.

II. SCOPE

The Security Management Plan establishes the parameters within which a safe and secure environment of care is established, maintained and improved for the UAMS campus. This plan addresses specific responsibilities, general security and related employee education programs. These and other elements of the Security Management Plan are directed toward managing the activities of the staff so the risk of injury to patient, visitors and employees on the U.A.M.S Campus (Little Rock) are reduced, and employees can respond appropriately in emergencies. The U.A.M.S. Police Department makes suggestions on security management issues to other areas outside of U.A.M.S. main campus through requested Risk Assessments. The UAMS Police Department facilitates the Security Management Program at UAMS.

The UAMS Police Department collects information from the following buildings on campus:

List of applicable buildings:
Central Building (HAP) Site ID 18696
Ward Tower (HAP) Site ID 18696
Hospital (HAP) Site ID 18696
Psychiatric Research Institute (HAP) Site ID 18696
Jones Eye Institute (AMB) Site ID 18696
MRI (AMB) Site ID 18696
Out Patient Center (AMB) Site ID 18696

911 is contacted first. UAMS Police are a secondary response when notified.

UAMS Sleep Lab (Off site Business Class) Site ID 525518 University Women's Clinic (Off site Business Class) Site ID 258911 University Women's Health Center (Off site Business Class) Site ID 125240

III. AUTHORITY / REPORTING RELATIONSHIP

The UAMS Safety Coordinating Committee has authority to coordinate and administer the UAMS Security Management Plan and its resulting policies and procedures. Program implementation is the joint responsibility of the UAMS Police Department, Occupational Health and Safety, and Telecommunications. The UAMS Environmental of Care 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 Occupational Health and Safety, Engineering & Operations, Design and Construction, Clinical Engineering, Telecommunications, Police Department, and Support Services.

The Environment of Care Committee is responsible for directing the security 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 Security Management Plan. The Environment of Care Committee will evaluate the trends and information gathered by the committee, develop appropriate policies and procedures, understand applicable security regulations and evaluate the effectiveness of the security program and its components on an annual basis. Responsibilities of the Environment of Care include reporting significant findings to the Safety Coordinating Committee.

IV. OBJECTIVES

- 1. Complete Incident reports for all security incidents.
- 2. To strive for the prevention of crime and to provide staff, patients, and visitors with a safe and secure environment.
- 3. Increase staff knowledge of the procedure for reporting security incidents.
- 4. Utilize security technology as appropriate
- 5. Manage VIP and potential media (under the direction of the Campus Media Relation Department).

V. INTENT PROCESSES

A. Emergency Security Procedures: The UAMS Police Department maintains complete policies and procedures for actions to be taken in the event of a security incident or failure. Routine checks are made on all panic alarms, and all campus and parking area emergency phones. The Police Department dispatcher maintains view of camera on entryways and sensitive areas. The UAMS Police department has a policy addressing civil disturbances, Policy # O-24. These include managing pedestrian and vehicle traffic and visitor control. In the event of a large group, assistance may be requested from the Little Rock Police Department, the Veteran's Affairs Police Department, and/or the Arkansas State Police.

The UAMS Police Department has an officer and a security officer stationed at the Emergency Department 24/7. A police officer is stationed in OPC Prisoner Intake area, Monday through Friday during regular business hours. Two security officers patrol the

Cancer Institute during designated hours. A night shift officer works the main information desk and adiacent metal detector in the late night hours.

Officers make regular rounds, unlock and lock exterior door at scheduled times, and respond to all police related calls to maintain a safe and orderly environment. The UAMS Police Department, in conjunction with the Media Relations Department, will assist media with an acceptable waiting location for information and reporting. Additional officers are called in as necessary to support these functions.

B. Addressing Security Issues: A security risk assessment is conducted annually of the facility, which includes high risk sensitive areas. The UAMS Police Department maintains the following:

Relative crime statistics Risk Assessment Incident Reporting System

C. Reporting and Investigations: The UAMS Police Department documents security related incidents for patient and visitor incidents, employee incidents and property damage. Security Incident Reports of patient and visitor security related incidents are completed by the UAMS Police Department directed to the Chair of the Environment of Care Committee. Employees involved in security related incidents will contact the UAMS Police Department. These reports will also be directed to the Environment of Care Committee.

The UAMS Police Department performs analysis of these incidents, the findings or the analysis is reported to the Environment of Care committee. The incident analysis is intended to provide an opportunity to identify trends or patterns that can be used to control or prevent future occurrences.

Identification: Employees, Physicians, Volunteers, Students, Contractors and Vendors are identified by identification badges. These badges are to be worn above the waist for visibility. Patients wear wristband identification in restricted areas where access is controlled:

Access Control:

<u>High End</u>: Sensitive areas are addressed from limited access control by use of identification cards, 24 hour monitoring and continuous staffing.

Mid-Level: General areas are secured using card access and locks and keys.

<u>Low Level</u>: Monitored through department policy related to visitor control and employee observation.

D. Vehicular Access: Vehicular access to the Emergency Department area is monitored by the UAMS Police Department 24/7.

VI. ORIENTATION AND EDUCATION

- **A. New Employee Orientation**: The Security Management Education Orientation and Training Program, begins with the new employee orientation for all new employees.
- **B.** Annual Continuing Education: The Annual Continuing Education Program for UAMS includes self-directed computer based learning modules. These modules contain learning materials and test. 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: Managers and/or directors are responsible for seeing that new and current employees are oriented to department security policies and procedures and specific job related hazards. Employees working in security sensitive areas are trained in processes for minimum security risk.
- D. Contract Employees: Assessment and needed education is done at the time of assignment.

VII. INFORMATION COLLECTION AND MONITORING (ICES) – PERFORMANCE MONITORING

UAMS ongoing performance monitoring is conducted. The following performance monitors have been established and will be maintained for the coming year. Measuring security trends as follows:

- 1. Assaults
- 2. Theft/Larceny
- 3. Workplace Violence

The UAMS Police Department oversees the development of performance monitors for the Environmental of Care and Safety Coordinating Committee. Data from these performance monitors are reported quarterly to the Safety Coordinating Committee. The objectives, scope, performance, and effectiveness of the Security Management Plan are evaluated annually by the Safety Coordinating Committee. The following aspects of the program will be assessed:

Staff Knowledge and Skills Noteworthy Trends or Incidents Goals and Objectives for the Upcoming Year

VIII. ANNUAL EVALUATION

- **A.** The Safety Officer has overall responsibility for coordinating the annual evaluation process with each of the seven functions associated with managing the Environment of Care. The annual evaluation examines the objectives, scope, performance, and effectiveness of the Safety Management Program.
- **B.** The annual evaluation is presented to the SCC by the end of the first quarter of each year. The SCC reviews and approves the report. The deliberations, actions, and recommendations of the SCC Committee are documented in the minutes. The annual evaluation is distributed to the Chancellor, Vice Chancellor for Clinical Programs, Board of Trustees, Medical Director and other department managers as appropriate. This finalizes the evaluation process.

IX. CORRESPONDING POLICIES

UAMS Police Department Policies:

Code Red A-01, Code Green A-02, Code Gray A-03, Code Pink/ Infant Abduction A-06
Code White/ Bomb Threat Policy A-07,
Security Alarm Procedures A-08,
Methadone Robbery Response A-09
Biomedical Research BL3 A-10
Radiation Storage Areas A11
Presidential Trauma Scenario S-01
Foreign Dignitaries / VIP Security S-02,
Lock Down/Active Shooter S-08
Emergency response Procedures S-10

Administrative Guide Polices

<u>11.3.01</u>	Building and Grounds Security
11.3.02	<u>Parking</u>
11.3.03	Traffic Citation Appeals
11.3.04	Two-Wheeled Vehicle Policy
<u>11.3.05</u>	UAMS ID Badge Issuance and Replacement
<u>11.3.06</u>	Bomb Threat Plan - "Code White"
11.3.07	Workplace Violence Prevention Plan
11.3.08	Code Active Shooter - Lockdown Alert

University of Arkansas for Medical Sciences

Part III - Hazardous Materials and Waste Management Plan FY20

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 establishes 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 are reduced, and employees can respond appropriately in emergencies.

III. AUTHORITY / REPORTING RELATIONSHIPS

The UAMS Safety Coordinating Committee 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 Occupational Health and Safety Department. The UAMS Environmental of Care 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 Occupational Health and Safety, Engineering & Operations, 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.
- Maintain accurate inventories of hazardous materials in the work area.
- 3. Ensure investigation and clean-up of a hazardous materials spill or release.
- 4. Ensure investigation of potential exposures to chemical related hazardous materials.
- 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 Department of Occupational Health & Safety (OH&S) will work with directors and managers on the correct handling, storing, 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

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, Chemotherapeutic, 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 wastes generated in their department, and ensuring compliance of disposal procedures with applicable laws and all UAMS policies and guidelines. The department of Occupational Health & Safety (OH&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. Out of schedule monitoring can be done due to changes in equipment and/or procedures.

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

- Formaldehyde (annually)
- Xylene (annually)
- Waste anesthetic gases (tri-annually)
- E. Storage of Hazardous Materials and Waste- Hazardous chemicals are located within the generating department until deemed unwanted. These wastes are 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 Environmental Programs Manager performs weekly inspections of the hazardous waste storage area.

Chemotherapeutic, hazardous drugs and bio-hazardous waste is managed by both the Biohazard team (Biosafety Officer) and Environmental Programs Manager as appropriate. The Radiation Safety Officer manages radioactive waste.

F. Reporting of hazardous materials/waste spills, exposures, and other incidents- The UAMS Incident and Injury Report form documents exposures from hazardous material spills. One of the following investigates hazardous materials spills: the UAMS Environmental Programs Manager, Bio-hazardous waste supervisor and/or Fire/Life Safety/Chemical Hygiene 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, Biosafety, Radiation, Exposure Control and Laboratory Safety. These plans include procedures for cleanup of spills of chemicals, radioactive materials, mercury, potentially infectious medical waste, and chemotherapy. A large chemical spill or hazardous materials release would initiate a Code Yellow 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 selfdirected 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 departmental specific hazardous materials. This training includes 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 inform 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 responsible for understanding how the material relates to his or her specific job requirements.

D. Contract Employees: Assessment and education is 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:
- Measure number of chemical spills for trending. This will include spills in the 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 ≤ 1 per quarter.
- 2. Measure the amount of bio-hazardous waste generated per adjusted patient day. The goal of FY20 is to continue to reduce the amount of regulated medical waste generated per adjusted patient day. The goal ≤ 1.50 pounds per adjusted patient day.
- **B.** The Environmental Programs Manager, Fire/Life Officer 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 Environmental Programs Manager performs the evaluation and submits 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 Clinical Programs, Board of Trustees, Medical Director and other department managers as appropriate. This finalizes the evaluation process.

University of Arkansas for Medical Sciences

Part IV - Fire Prevention & Life Safety Management Plan FY20

I. Mission

The purpose of this plan is to promote, implement and administer a comprehensive Life Safety program for UAMS. This plan provides for and monitors a safe environment for employees, students, patients, and visitors designed and maintained to comply with the Life Safety Code (LSC), National Fire Protection Association (NFPA) 101-2012 and the Arkansas Fire Prevention Code. Design criteria accepted by the healthcare community are used when designing the environment of care including the Guidelines for Design and Construction of Hospitals and Healthcare Facilities, 2014 edition, published by The Facility Guidelines Institute

II. Scope

The Fire Prevention & Life Safety Management Plan establishes the parameters within which a safe and secure environment of care is established, maintained and approved for UAMS. Fire Prevention & Life Safety are established to ensure that employees are educated, trained, and tested in the fire prevention & life safety features of the physical environment and are able to react to a variety of emergency situations that may affect the safety of occupants or the delivery of health care.

III. Authority/Organization

The Safety Coordinating Committee (SCC) has authority to coordinate and administer the UAMS Fire Prevention & Life Safety Management Plan and its resulting policies. Program implementation is the joint responsibility of the Departments of Occupational Health and Safety (OH&S), Design & Construction, Facilities Planning and Design and Engineering & Operations. UAMS Environment of Care (EOC) Committee members includes representatives from OH & S, Engineering & Operations, Design & Construction, Facilities Planning and Design, Clinical Engineering, Telecommunications, Police, and Support Services. UAMS EOC Committee member goals and responsibilities are developed and reviewed as part of the annual evaluation.

The EOC Committee Chair has been given the authority by the Chancellor to organize and implement the Fire Prevention & Life Safety Management Plan. The EOC Committee will evaluate the trends and information gathered by the committee, develop appropriate policies and procedures, understand applicable codes and regulations, and evaluate the effectiveness of the Fire Prevention & Life Safety Management Plan and its components on an annual basis. Responsibilities of the EOC Committee include reporting significant findings and recommending actions to the Safety Coordinating Committee or the Vice Chancellor of Campus Operations.

IV. Responsibilities/Functions

The EOC Committee is responsible for:

- Review and approval of all pertinent policies.
- Review and approval of the PM Maintenance Program.
- Oversight of the Fire Drill Program.
- Annual Evaluation of the Fire Prevention & Life Safety Management Plan's objectives, scope, performance, and effectiveness.

The Department of OH&S has management, enforcement and audit responsibility for all of the fire prevention & life safety programs including:

- Recognition and reporting of safety issues related to facilities, equipment, and conditions via environmental rounds and the department specific audit program.
- Management of the Life Safety Code Database (LSCD).
- Scheduling, conducting, and evaluating all fire drills and actual fire responses.
- Reporting and investigating life safety code deficiencies in existing buildings and in new designs by plan review.
- Implementation of Interim Life Safety Measures and responsibility for monitoring and training.
- Assisting in the training of all contractors working in UAMS campus facilities.

The UAMS Engineering & Operations Department is responsible for:

Fire Alarm and Detection Equipment is Tested in Accordance with NFPA 72 as follows:

Initiating Devices

- All supervisory signal devices (except valve tamper switches) are tested at least quarterly.
- o All valve tamper switches and water flow devices are tested at least semiannually.
- All duct detectors, electromechanical releasing devices, heat detectors, manual fire Alarm boxes, smoke detectors are tested at least annually.
- Kitchen automatic fire extinguishing systems are inspected for proper operation at least semiannually (actual discharge of the fire extinguishing system is not required) in accordance with NFPA 96.
- Carbon dioxide and other gaseous automatic fire extinguishing systems are tested for proper operation at least annually (actual discharge of the fire extinguishing system is not required) in accordance with NFPA 12 and NFPA 2001. All portable fire extinguishers and standpipe systems are inspected, tested and maintained as follows:
- All portable fire extinguishers are inspected, tested and maintained in accordance with NFPA 10
 as noted below:
 - 1. Clearly identified
 - 2. Inspected at least monthly
 - 3. Maintained at least annually
- All stand pipes, hose cabinets, and fire sprinkler systems are inspected, tested and maintained in accordance with NFPA 25.
- All fire pumps are inspected and tested in accordance with NFPA 20.

Building Fire Protection Equipment is maintained as follows:

- All fire and smoke dampers are operated (with fusible links removed where applicable) to verify they fully close at least every six years in accordance with NFPA 90A.
- All automatic smoke detection shutdown devices for air handling equipment are tested at least annually in accordance with NFPA 90A.

 All horizontal and vertical sliding and rolling fire doors are tested for proper operation and full closure at least annually in accordance with NFPA 80.

The UAMS Design & Construction Department is responsible for:

- Implementation of the ILSM/ICRA Program
- Responsible for training of contractors concerning the UAMS policies and procedures pertaining to construction projects.

The UAMS Facilities Planning and Design is responsible for:

- Designing all newly constructed and existing environments of care in accordance with the Life safety Code (LSC), NFPA 101 2012.
- Using design criteria that are referenced by the healthcare community.
- Maintaining and updating the eSOC.
- Reviewing Proposed Acquisitions of Bedding, Window Draperies, and other Curtains, Furnishings, Decorations, Wastebaskets, and Other Equipment for Fire Safety:

Reporting and Investigating Fire Protection Deficiencies, Failures, and User Errors:

The Fire Prevention & Life Safety Management Program identifies and documents fire protection deficiencies, failures, and user errors that may threaten the patient care environment. These issues are documented via Hazard Reports, Maintenance Work Orders, Fire Drill Critiques, Interim Life Safety Inspection Forms, Environmental Rounding, or Departmental Specific Audits. Summaries of the reports are provided to the EOC Committee.

When problems are identified, actions are taken to resolve them and such actions are documented.

V. Training and Education:

The UAMS Education Program incorporates an orientation program for new employees and annual inservice education for existing employees. Both training programs are designed to enhance employee safety awareness in an effort to eliminate, as much as possible, potential safety hazards.

The Orientation and Annual Education Program addresses the following:

- Specific roles and responsibilities of personnel, physicians, and other licensed independent practitioners at a fire's point of origin.
- Specific roles and responsibilities of personnel, physicians, and other licensed independent practitioners away from a fire's point of origin.
- Specific roles and responsibilities of other personnel who must participate in the fire plan, such as volunteers, and students.
- Use and functioning of fire alarm systems.
- Specific roles and responsibilities in preparing for building evacuation.
- Location and proper use of equipment for evacuating or transporting patients to areas of refuge.
- Building compartmentalization procedures for containing smoke and fire.

Training may also be completed with annual refresher training requirements through

- Scheduling OH&S to present a customized presentation
- Review of the Safety in-service Module
- Mail out of safety review module
- Review of video presentation

VI. Information Collection & Evaluation System (ICES):

Information from departmental specific audits, environmental rounds and construction projects are compiled by the OH&S department. Life safety code infractions that are identified are entered into the LSC database and transmitted to the Engineering & Operations for corrective action. The LSC Database tracks all reports of potential hazards by department, category of hazard, resolution and time until completion.

VII. Performance Improvement Indicators for FY20:

UAMS will maintain ongoing monitoring of performance regarding actual or potential risk within the Fire Prevention & Life Safety Management program related to one or more of the following:

- Increase Air Pressure performance scores to >=90% in all patient areas
- Increase Corridor Clutter performance scores to >=90% in all patient areas
- Increase Door Gap performance scores to >= 90% in all in all patient areas.
- Increase Expired Supplies performance scores to >=90% in all patient areas

Performance monitors are established and monitored by OH&S and summary reports are provided to the Environment of Care and Safety Coordinating Committee. The measures are monitored as long as deemed necessary by OH&S and the overall effectiveness of the performance monitors are assessed as part of the annual evaluation of the Fire Prevention & Life Safety Management Program.

Annual Evaluation:

The objectives, scope, performance, and effectiveness of the Fire Prevention & Life Safety Management program is evaluated annually and reviewed by the Environment of Care & Safety Coordinating Committee. The following aspects of the program will be assessed:

- Increase Air Pressure performance scores in all patient areas.
- Increase Corridor Clutter performance scores in all patient areas.
- Increase Door Gap performance scores in all patient areas.
- Increase Expired Supplies performance scores in all patient areas.

The evaluation will focus on the results of the program over the past year and quantitative data will be used as much as possible.

Statement of Conditions:

The UAMS Facilities Planning and Design Department is responsible for developing and maintaining an electronic Statement of Conditions (eSOC) for all applicable buildings.

The hospital maintains an on-going effort to assess the facility for compliance with the 2012 Life Safety Code and keep the facility in compliance with the Code. The eSOC is an embodiment of UAMS' ongoing efforts to keep its facilities in compliance with the Life Safety Code.

VIII. Corresponding Policies:

Interim Life Safety Measures (ILSM) and Infection Control Risk Assessment (ICRA) Campus Operations, 11.2.08

Infection Control: Construction Areas - Infection Control policy 10.41

Maintenance of Smoke/Fire Barriers Campus Operations 11.1.08

UAMS Contractor/Consultant Orientation Design & Construction

Hot Work Permits Campus Operations 11.1.11

University of Arkansas for Medical Sciences Part V – Medical Equipment Management Plan FY20

I. MISSION

The Medical Equipment Management Plan is designed to promote safe and effective use of medical equipment used for the diagnosis, treatment, and monitoring of patient care needs. This plan also addresses administrative issues such as program structure, reporting requirements, specific responsibilities, general safety, and employee education programs.

The mission, values and philosophy of UAMS are to create and operate a comprehensive system to teach, heal, search, and serve. Consistent with the mission, values and philosophy, the medical staff, and administration has established and provide ongoing support for the Medical Equipment Management Program described in this plan.

II. SCOPE

The Medical Equipment Management Plan establishes the parameters to ensure medical equipment is maintained for safe use at UAMS Integrated Clinical Enterprise. Senior management of UAMS recognizes the need for the comprehensive clinical equipment management program managed by Clinical Engineering to ensure that all patients and employees are supported in their use of medical equipment, devices, and technology.

III. AUTHORITY /REPORTING RELATIONSHIPS

The MEMC is responsible for directing the Medical Equipment Management Program (MEMP) and an ongoing, organization-wide process to collect information about deficiencies and opportunities for improvement in the Medical Equipment Management Program.

The UAMS MEMC will evaluate trends and information gathered by the committee, develop appropriate policies and procedures, and evaluate the effectiveness of the MEMP. Reports go to the Safety Coordinating Committee through the EOC Committee.

IV. OBJECTIVES

- 1. Improve employee knowledge of medical equipment requirements and support the routine operational needs of equipment users.
- 2. Participates with pre-purchase equipment selection and new product evaluations.
- 3. Manage and track all maintenance requirements, activities, and expenses required to service, repair, and keep operational all equipment included in the plan.
- 4. Develop and manage all aspects of a comprehensive maintenance program and related quality assurance activities that take into account equipment function, safety risks, and maintenance requirements.

V. INTENT PROCESS

A. Selecting and Acquiring Equipment

As part of the capital budgeting cycle, Directors and / or managers are responsible for identifying and justifying new and replacement medical equipment technology for their departments or areas of responsibility. See policy SC.2.05 for Selecting and Acquiring Medical Equipment.

B. Criteria and Inventory

Clinical Engineering is responsible for the development of criteria used to identify risks associated with medical equipment. The criteria are used to evaluate risks related to the function of medical equipment, physical risks related to the use of equipment, and any history of patient safety issues related to the use of the equipment. Responsibilities also include assuring that all medical equipment is screened at the time of commissioning. The screening procedure is applied, as appropriate, to loaner equipment, demonstration equipment, and equipment owned by physicians or other qualified individuals that is used as part of the care or treatment of a patient at UAMS ICE. All equipment regardless of ownership will be reviewed against the inclusion criteria. Equipment will be included in the Medical Equipment Management Plan based on equipment function, physical risk, and maintenance functions. Equipment included in the Medical Equipment Management Plan will be inventoried, maintenance strategy defined and work history tracked in the CMMS. Some items may be added to the inventory for asset management purposes only. The accuracy of this inventory will be verified during scheduled maintenance inspections Department Rounds (DR) and Environmental Sweeps.

C. Maintenance Strategies

Clinical Engineering uses manufacturer recommendations, applicable codes and standards, accreditation requirements, and local or hospital experience to determine the appropriate maintenance strategy for assuring safety and maximizing equipment availability and service life. These activities and associated frequencies are in accordance with the manufactures recommendations or with strategies of alternative equipment maintenance (AEM) program.

D. Inspection, Testing, and Maintenance Intervals

Clinical Engineering is responsible for assuring that the rate of timely completion of scheduled maintenance and other service activities meets regulatory and accreditation requirements. The basis for the determination of inspection is risk, and or any "Agency Having Jurisdiction" (AHJ). All devices will receive a performance verification and safety test during the incoming inspection procedure and after completion of a major repair. All work activities, inspection schedules, and work histories are kept in the department CMMS or Vendor database. The Dialysis Department maintains their records for testing of water used for dialysis procedures and reports to Infection Control. Records of sterilizer testing are maintained by Central Sterile Department. All High risk equipment including life support such as (ventilators, heart/lung anesthesia, and defibrillators) will be checked on a regular, scheduled basis with a 100% completion rate. Non-high risk equipment known as general biomed medical equipment will be checked on a regular scheduled basis at a 100% completion rate unless classified as Incident Based maintenance or other AEM.

E. Management of Medical Equipment Hazard Notices and Recalls

The Director of Clinical Engineering (or his designee) coordinates the management of medical equipment hazard notices and recalls. The steps in the management process include:

- 1. Routing of all medical equipment hazard and recall notices to the responsible Clinical Engineering staff.
- 2. Logging of all hazard and recall notices determined to apply to equipment in use or storage in any location operated by UAMS Little Rock campus.
- 3. Generation and circulation of an internal hazard and recall notice tracking system to all appropriate Clinical Engineering staff with instructions addressing how to respond to the hazard or recall notice.
- Tracking of circulated notices to assure timely completion of activities required to eliminate or manage the issues addressed by the hazard or recall notice.
- 5. As appropriate, routine reports of any actions taken to address published hazard and recall notices related to medical equipment.

 Risk Management, Supply Chain, and Clinical Engineering are responsible for the Safe Medical Devices Act (SMDA) Reporting process. Information about reportable events is processed through the incident reporting process. Internally, the Risk Manager applies the Root Cause Analysis (RCA) process to all SMDA events. The findings of the RCA are used to update or develop procedures and controls, make changes in the environment, or provide additional education and training to eliminate or reduce the risks that led to the reportable event.

F. Medical equipment is maintained, tested, and inspected

> Equipment Inventory and Initial Testing

Clinical Engineering maintains an inventory of all equipment included in a program of planned inspection or maintenance. The inventory includes equipment owned by UAMS, leased and rented equipment, and personally owned equipment used for the diagnosis, treatment, and monitoring of patient care needs.

All equipment in the program is tested for safety, operation and function prior to use on patients. Information from these inspections are documented and entered into the database

> Testing of High Risk Equipment

Clinical Engineering assures that scheduled testing of all High Risk equipment is performed in a timely manner. Reports of the completion rate of scheduled inspection and maintenance are presented to the Environment of Care Committee each quarter. If the quarterly rate of completion falls below 100%, Clinical Engineering will also present an analysis to determine what the cause of the problem is and make recommendations for addressing it to the MEMC.

> Testing of Non-High Risk Equipment

Clinical Engineering assures that scheduled testing of all non-High Risk equipment is performed in a timely manner. Reports of the completion rate of scheduled inspection and maintenance are presented to the Environment of Care Committee each quarter. If the quarterly rate of completion falls below 100%, the manager of the MEMP will also present an analysis to determine what the cause of the problem is and make recommendations for addressing it.

Testing of Sterilizers

Sterile Processing is responsible for daily load testing and Clinical Engineering provides maintenance of all types of sterilizers used at UAMS. Records of load testing are maintained by Sterile Processing and regular maintenance records are maintained by Clinical Engineering.

> Testing of Dialysis Water Systems

Clinical Engineering is responsible for maintenance of dialysis equipment used at UAMS. The program of maintenance includes regular cleaning and disinfection of all dialysis equipment and testing for compliance with biological and chemical standards for the dialysis water supply. A contracted vendor performs disinfection of dialysis units and water system. Clinical Engineering performs regular maintenance and testing of the dialysis water supply through Renal Lab. Dialysis department staff performs daily tests for purity of the water used for dialysis and out of range results are reported to Infection Control. Risk Management is notified of any event resulting in a patient injury or death will be treated as a Sentinel Event.

G. Monitoring and Reporting of Incidents (Including SMDA)

All affected employees participate in all medical equipment-related occurrence investigations as directed by coordinating individual. When indicated, a Clinical Engineer will perform or coordinate the investigation of a device involved in an event. The results of this investigation will be communicated to Risk Management. If the report findings meet the medical device reporting criteria, the information is reported to the FDA per SMDA reporting process.

H. Reporting Equipment Management Problems, Failures and User Errors

Users report equipment problems to Clinical Engineering by calling 686-5754 . The valid work order cause codes and failure codes used in the computerized maintenance management system (CMMS) allow for the identification of significant problem areas and trends. The Clinical Engineering Department will review work order summary reports monthly and include any significant findings in the report to the MEMC on a quarterly basis.

VI. ORIENTATION AND EDUCATION

- **A. New Employee Orientation:** New employees are trained on the UAMS Medical Equipment Management Program. Training includes information on where to reference the proper information to ensure the medical equipment has been maintained, how to report medical equipment problems and the proper procedures for the Safe Medical Device Act (SMDA) of 1990.
- **B. Annual Continuing Education:** The Annual Continuing Education Program for UAMS includes self-directed computer based learning modules. These modules contain learning materials and a test. 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 revised as necessary. New modules are developed when the need is identified. All employees at UAMS are required to participate in annual safety training education.
- C. Department Specific Training: Department Managers and Directors are responsible for orienting new employees to the department and inform them of

specific medical equipment procedures. Managers and / or Directors will train their employees in departmental or job-related medical equipment procedures or precautions. Managers and / or Directors are provided with appropriate Medical Equipment Program guidelines and directed to maintain a current awareness of the Medical Equipment Program, and to ensure its effective implementation within his or her department.

Each employee is responsible for following the guidelines set forth in the Medical Equipment Program. Employees complete annual education regarding Medical Equipment Safety in the workplace and are responsible for understanding how medical equipment management relates to his or her specific job requirements.

As part of the capital acquisition process, Clinical Engineering will request service manuals, training classes or other educational materials for the technical staff. Clinical Engineering will identify user-related problems in the work order coding and report on significant events or trends to the Medical Equipment Committee. When a significant number of user related problems occur in a specific area, Clinical Engineering will instruct or arrange for the instruction of end users in the proper operation of equipment.

D. **Contract Employees and Vendors:** Perform an assessment and educate as necessary on their specific equipment responsibilities at the time of assignment for required Medical Equipment Program training.

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

- **A.** UAMS conducts ongoing performance monitoring. The following performance monitors have been established
- 1. Numbers of user-related problems are tracked and reported. User-related or Operator Error Goal is keep the number of problems to less than 25 per month.
- 2. Monitor the number of medical equipment incidents that related to damage or abuse. The goal for abuse occurrences is less than 75 per month.
- **B.** The MEMC oversees the development of performance indicators for this committee. Data from these performance monitors are reported at least quarterly to the SCC through the EOC Committee. 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. The departments are now being charged for the repair if there is a clear sign of abuse. The data will be tracked to see if this lowers our number of occurrences by increased education and staff training.

VIII. ANNUAL EVALUATION

The Safety Officer has overall responsibility for coordinating the annual evaluation process with each of the six functions associated with management of the Environment of Care. The MEMC performs the evaluation and submits to the EOC Committee. The annual review examines the objectives, scope, performance, and effectiveness of the Medical Equipment Program. The annual evaluation is presented to the SCC Committee by the end of the first quarter of each year. The Safety Coordinating Committee reviews and approves the report.

IX. CORRESPONDING POLICIES

Medical Equipment Maintenance Program

University of Arkansas for Medical Sciences

Part VI – Utilities Systems Management Plan

FY20

I. MISSION STATEMENT

The purpose of the Utilities Systems Management Plan is to manage risks associated with the operation of utility systems, perform planned and preventive maintenance, make timely and effective repairs, develop procedures and provide staff training to support quick and effective responses to utility failures. Events will also be evaluated that could have an adverse impact, in order to assure a safe, reliable and comfortable environment for patient care, academics and research at UAMS.

II. SCOPE

The department (hereafter referred to as E&O) is responsible for minimizing risks associated with utility systems, and responding to emergencies in the environment of care on the UAMS campus. E&O consists of facility managers, engineers, licensed Technicians, Craftsmen and qualified support staff.

The specific utilities included in the Utility Systems Management Plan are as follows (in alphabetical order, not order of importance):

- A. Communication Systems (By Telecommunications)
- B. Electrical Distributions Systems
- C. Emergency Power Systems
- D. Fire Safety Equipment and Building Features
- E. Heating, Ventilation and Air Conditioning Systems
- F. Hot Water and Steam Systems
- G. Medical Gas and Vacuum Systems
- H. Natural Gas Delivery Systems
- I. Plumbing and Water Systems
- J. Vertical Transport Systems

List of applicable buildings:
Central Building (HAP) Site ID 18696
Ward Tower (HAP) Site ID 18696
Hospital (HAP) Site ID 18696
Psychiatric Research Institute (HAP) Site ID 18696
Jones Eye Institute (AMB) Site ID 18696
MRI (AMB) Site ID 18696
Out Patient Center (AMB) Site ID 18696
UAMS Sleep Lab (Off site Business Class) Site ID 525518
University Women's Clinic (Off site Business Class) Site ID 258911
University Women's Health Center (Off site Business Class) Site ID 125240

III. AUTHORITY / REPORTING RELATIONSHIPS

The Director of E&O is responsible for directing the utilities program, including a safe, controlled and comfortable environment of care by provision and maintenance of adequate and appropriate utility services and infrastructure.

The Environment of Care (EOC) Committee Chair has been given authority to oversee the Utility Systems Management Plan. The EOC Committee will evaluate the trends and information gathered by E&O, develop appropriate policies and procedures, understand applicable codes and regulations, and evaluate the effectiveness of the utility management program and its components on an annual basis. Responsibilities of the EOC Committee include reporting significant findings and recommending actions to the Safety Coordinating Committee, when deemed necessary.

Oversight of the Utility Systems Management Plan lies with the EOC Committee. All utility failures and utility performance indicators are reported each quarter in a report that is presented to the EOC Committee for review and recommendations. The EOC Committee then reports to the Safety Coordinating Committee, as appropriate.

IV. OBJECTIVES

- Operate utility systems to provide a safe and comfortable patient care environment.
- Assure reliability of utility systems by performing recommended maintenance.
- Reduce incidents that result in unplanned failures and interruptions.
- Comply with Federal, State, and Local regulations.
- Utilize industry standards where applicable and approved by the Authority Having Jurisdiction (AHJ).
- Identify opportunities to improve utility system performance.
- Train staff to operate utility systems correctly, including appropriate response to failures or disruptions.
- Enact policies and procedures designed to protect patients, staff, nurses, physicians, visitors, contractors, and others from known risks.

V. INTENT PROCESSES

E&O has policies that pertain to the implementation of this plan. A few of the highlights and critical applications are listed below.

E&O shall conduct and document risk assessments, collect data on management problems, failures, and user error, and develop recommendations to improve utility performance.

Problems with the utility systems are reported to the Campus Operations Call Center for corrective action. The Campus Operations Call Center is staffed 24 hours a day, 7 days a week and has immediate access to maintenance personnel, as well as other technicians from critical shops. These technicians carry smart phones and some are on-call.

Maintaining a safe, controlled, comfortable environment on a campus this large is a major undertaking. While E&O quickly responds to any problems with a staff of qualified people, our staff is relied upon to recognize and report any problems or hazards they observe while traveling to and from work sites and performing their duties. E&O has a Preventive Maintenance (PM) program that addresses high risk equipment and components. This program is risk based and uses alternative maintenance means derived through history of equipment and experience to maintain the campus building systems. MEP systems have a significantly reduced rate of failure when properly maintained.

Engineering & Operations has a prioritized plan for equipment preventative maintenance to maximize the effectiveness of our staff and the operation of the equipment. Details of this system are covered in Engineering & Operations Policy A-4.

Once an item has been identified as being included in the PM system, an inspection, testing, maintenance procedure is developed for that piece of equipment and it is added to the system. This document is called a "PMI," which is short for Preventive Maintenance Instructions.

Operational plans for the utility systems on this campus have been developed which describe the respective system and basic operation, along with responsibility for maintenance and emergency response plans. Included with these plans is a review of all failures by pertinent parties to determine its cause, what can be done to prevent it, and when this can be implemented to prevent future problems. These plans are available as part of E&O Policy IV-36 Utility Operation Plans & Management of Failures.

Construction and as-built plans for the buildings on this campus are available through the Facilities Planning office. Most of these are available through the plant computer network and there is an ongoing process to move all plans into an electronic format. To make locating the shutoff faster once a person has reached a general location, large yellow circles are on the floor and signs are posted in the area that can be readily seen by someone not totally familiar with the location.

After any significant utility system failure, an After Action Review (AAR) is conducted to determine what improvements could be made to improve our response to subsequent utility failure events.

VI. ORIENTATION AND EDUCATION

There is ongoing development of a continuing education program to address concerns such as infection control, emergency procedures, shutoff locations, utility system operation and limitations, critical operations such as bone marrow air handlers, and the crafts necessary to perform tasks. This is accomplished through a combination of monthly E&O department meetings, on the job orientation, seminars by vendors and others, good hiring practices, and in-house training.

The Campus Operations Call Center is the 24-hour hub for all operations and emergency procedures for utility system failures are readily available. These procedures address what to do in the event of a failure as in who to notify, and initial responses. There are also policies governing emergencies in the Engineering & Operations policy manual that are reviewed annually.

Annual staff performance evaluations include a job competency and knowledge review, which results in training provided as needed.

VII. INFORMATION COLLECTION & EVALUATION SYSTEMS (ICES) - PERFORMANCE MONITORING

Performance of the system is monitored in several ways:

- Annual performance evaluation of all technicians and Managers
- Spot follow-up inspections by Managers and administrative staff
- Electronic work order "report card" system
- Complaints or "kudos" from customers
- Work order system to determine who, where and how much we are spending on equipment for repair and operation
- PM system inspections to identify problems and work that is not being accomplished
- Reporting system for utility failures as described above

The administrative staff will accomplish an annual evaluation of this plan along with the operational plans for each utility system. Details are provided in the E&O Policy A-1 Policy Manual and Utility Plan Review.

A report of all utility management activities reported through the Environment of Care Committee is provided to the UAMS Safety Committee and is included in the Quarterly Safety Management Report presented to the University of Arkansas Board of Trustees by the Director of Occupational Health and Safety.

Performance Indicator: High-Risk Utility System Component preventive maintenance completions.

Goal: Priority 1 (one) PM will be 100% on time.

Performance Indicator: Track unplanned utility failures.

Goal: Enhanced maintenance or significant corrective actions will be apparent from problematic or recurring failures.

Performance Indicator: Track Joint Commission Documentation Preparedness.

Goal: Trend the accuracy and readiness of The Joint Commission documentation with a goal of 95% after a quarterly review.

Performance Indicator: Track Fire Door Maintenance

Goal: Trend Pass/Fail rate of doors on initial inspection and condition of door after maintenance.

Each of the performance indicators and respective results are reported to Environment of Care Committee on a guarterly basis.

VIII. ANNUAL EVALUATION

The Safety Officer has overall responsibility for coordinating the annual evaluation process with each of the six functions associated with management of the Environment of Care. E&O performs the evaluation and submits to the EOC Committee. The annual evaluation examines the objectives, scope, performance, and effectiveness of the Utilities Management Program.

The annual evaluation is presented to the Environment of Care Committee by the end of the first quarter of each fiscal year. The EOC Committee reviews and approves the report, and forwards it to the UAMS Safety Committee. The deliberations, actions, and recommendations of the EOC Committee are documented in the minutes. The annual evaluation is distributed to other department managers as appropriate. This finalizes the evaluation process.

IX. CORRESPONDING POLICIES

The following Engineering & Operations policies are referenced either in the Utility Systems Management Plan or Utility Operating Plans.

- A-1 Policy Manual and Utility Systems Management Plan Review
- A-4 Preventive Maintenance Work Order Priority
- I-11 Emergency Elevator Procedures
- IV-2 System or Utility Shutdown
- IV-7 Emergency Water Supply Schedule

- IV-8 Emergency Generator Diesel Fuel
- IV-9 Emergency Generators
- IV-10 Monitoring Emergency Generator Sets
- IV-11 Electrically powered Equipment
- IV-12 Electrical Distribution Systems
- IV-13 Emergency Power System
- IV-14 Hot Water Temperature in Patient Areas
- IV-15 Contaminated Water Supply
- IV-21 Plumbing Systems
- IV-22 Boiler and Steam Systems
- IV-23 Medical Air System
- IV-24 Medical Vacuum System
- IV-33 UAMS Chilled Water Emergency Plan
- IV-34 Steam Supply Emergency Plan
- IV-35 Planned Electrical Power Transfer
- IV-36 Utility Operating Plans & Management of Failures
- IV-37 Utility Failure Debriefings
- IV-38 Legionella
- IV-39 Airborne Contaminante Control