EC.01.01.01 EP6 The hospital has a written plan for managing hazardous materials and waste.

I. SCOPE

The Hazardous Material and Waste (HazMat) Management Plan describes the methods for handling hazardous materials and waste through risk assessment and management. The plan addresses the risks associated with those materials, wastes or energy sources that can pose a threat to the environment, team members, patients, and to minimize the risk of harm at UnityPoint Health-Allen Hospital. The program is also designed to assure compliance with applicable codes and regulations as applied to the buildings and services at UnityPoint Health-Allen Hospital. The processes include education, procedures for safe use, storage and disposal, and management of spills or exposures.

The program is applied to the hospital and licensed clinic(s) of UnityPoint Health-Allen Hospital.

II. FUNDAMENTALS

A. The hazardous materials and waste are identified in the organization’s inventory and the associated hazards defined as required by law or regulation in Safety Data Sheets (SDS), guidelines, good-practice recommendations, or similar available documents.

B. Safe use of hazardous materials and handling of waste requires participation by leadership, at an organizational level and a departmental level, and other appropriate team members in the design and implementation of all parts of the plan.

C. Protection from hazards requires all team members who use or are exposed to hazardous materials and waste to be educated as to the nature of the hazards and to use equipment provided for safe use and handling when working with or around hazardous materials and waste.

D. Rapid, effective response is required in the event of a spill, release, or exposure to a hazardous materials or waste.

E. Special monitoring processes or systems may be required to manage certain hazardous gases, vapors, or radiation undetectable by humans.

III. OBJECTIVES

The Objectives for the HazMat Management Program are developed from information gathered during routine and special risk assessment activities, annual evaluation of the previous year’s program activities, performance measures, incident and injury reports,
The Objectives for this Plan are:

- Update alternative workplace labeling & hazard communication program as necessary, & provide additional team member training for newly identified physical or health hazards by June 1, 2016 (OSHA GHS required)
- Review the process and spill collection of chemicals, such as formaldehyde and Glutaraldehyde through monitor-based evaluation.
- Evaluate the need for eye wash stations and showers
- Establish an inspection process for eye wash areas.
- Assess the effectiveness of the SDS access process and ensure the availability of the information sheets to the departments.
- Reduce the acutely hazardous waste to a manageable generator capacity

IV. ORGANIZATION & RESPONSIBILITY

A. The Allen Health Systems, Inc. Board of Directors receives regular reports of the activities of the HazMat Management Program from the multidisciplinary improvement team, the Environmental Safety Committee, which is responsible for the Physical Environment issues. They review reports and, as appropriate, communicate concerns about identified issues and regulatory compliance. They also provide financial and administrative support to facilitate the ongoing activities of the HazMat Management Program.

B. The Chief Operating Officer (COO), or other designated leader, collaborates with the Environmental Safety Committee Chair to establish operating, and capital budgets for the HazMat Management Program.

C. The Hazardous Material Coordinator / Regional Director of Facility Operations in collaboration with the committee, is responsible for monitoring all aspects of the HazMat Management Program. This individual advises the Environmental Safety Committee regarding HazMat issues which may necessitate changes to policies and procedures, orientation or education, or expenditure of funds. Per EPA requirements, Steve Cusher, Regional Director of Facility Operations, is the Hazardous Materials and Waste Manager for UnityPoint Health-Allen Hospital. He can be contacted by his office phone (319-235-3631), by cell phone (319-231-1315), or by email (steve.cusher@unitypoint.org).

D. Department directors are responsible for orienting new team members to the department and, as appropriate, to job and task-specific HazMat procedures. They are also responsible for the investigation of incidents occurring in their departments. When necessary, the Hazardous Material Coordinator / Regional Director of Facility Operations provides department directors with assistance in developing department HazMat Management Programs or policies.

E. Individual team members are responsible for learning, retaining and following job and task-specific procedures for safe HazMat operations. The Regional Director of Facility Operations, the Radiation Safety Officer, and the Infection Control Program Manager will assist in the management.

F. Education
   1. Initial orientation includes an introduction to the Worker Right to Know laws.
   2. It is the responsibility of the department or service manager to educate their team members in:
      a. Precautions for selecting, handling, storing, using, or disposing of hazardous materials.
b. Emergency procedures for hazardous materials and waste spills or exposure.
c. Health hazards of mishandling hazardous materials.
d. Reporting procedures for hazardous materials and wastes incidents including spills and exposures.

3. Hazardous materials and wastes are included in the mandatory annual education program presented to all team members departmentally to meet the OSHA’s Hazardous Communication requirement.

4. As new hazardous materials are introduced into departments, team members need to be trained on the hazards of the substance before they use it.

V. PERFORMANCE ACTIVITIES

The performance measurement process is one part of the evaluation of the effectiveness of the HazMat Management Program. Performance measures have been established to measure at least one important aspect of the HazMat Management Program.

The performance measure for the HazMat Management Program is:

A. A quarterly report by the Hazardous Material Coordinator / Regional Director of Facility Operations which monitors performance and effectiveness of the Plant Operations Performance Improvement process and reports the information to the Allen Health Systems, Inc., Board of Directors via the Performance Improvement and Environmental Safety Committees.

B. An annual evaluation of the plans, objectives, and scope by the Hazardous Material Coordinator / Regional Director of Facility Operations which is included in the Plant Operations Performance Improvement program with summaries to the Allen Health Systems, Inc., Board of Directors via the Performance Improvement and Environmental Safety Committees.

VI. PROCESSES FOR MANAGING THE RISK OF HAZARDOUS MATERIAL AND WASTE- EC.02.02.01

Hazardous Materials and Waste Inventory- EC.02.02.01 EP1

The organization develops and maintains an inventory of hazardous materials and waste, including chemicals, biological, radiological, chemotherapeutic, and chemicals. Each manager provides information on the hazardous materials and waste used, stored, or generated in that department. The Hazardous Material Coordinator / Regional Director of Facility Operations manages the inventories received from each department and evaluates for completeness with assistance from the appropriate team members, including the Radiation Safety Officer.

Spills and Exposures- EC.02.02.01 EP3-4

The Hazardous Material Coordinator / Regional Director of Facility Operations develops and maintains emergency procedures for the Hazardous Materials and Waste program.

Procedures have been developed that include precautions and personal protective equipment and the response to spills. The individuals that evaluate or respond to spills will determine if outside assistance is necessary. A minor (incidental) spill is one that can be cleaned up by the team members involved, with their training and personal protective equipment. If a spill kit is used, replace the kit contents.

A spill that exceeds the capability of the immediate team members to neutralize and clean up requires a response from outside the facility. In these cases, the area maybe
evacuated, ventilation controlled, and/or the Fire Department HazMat Team or outside contractor is called. The Fire Department or outside contractor takes control of the site and cleanup or arrange for it to be cleaned up. Once determined safe, the hospital team members will disinfect the area and recovery. Team members, including Environmental Services team members, is trained to recognize the potential for a spill that is not safe to handle, and to contact their manager, and/or the Hazardous Material Coordinator / Regional Director of Facility Operations. During off-shifts, the House Supervisor will make the determination. Team members are cautioned to err on the side of safety, and not to handle chemical spills that exceed their training, or the personal protection they have available.

Incidents involving spill kits or a response from any outside agency are documented on Incident Report Forms for documentation of the incident.

**Hazardous Chemical Risks- EC.02.02.01 EP5**

A process has been established and maintained for identifying, selecting, handling, storing, transporting, using, and disposing of hazardous chemical materials and waste from receipt or generation through use and/or final disposal. The department leadership assures their safe selection, storage, handling, use, and disposal. The department is responsible for evaluating the SDS for hazards before purchase of departmental supplies, to assure they are appropriate and the least hazardous alternative practical. The department managers work with the Hazardous Material Coordinator / Regional Director of Facility Operations and appropriate individuals, such as the Radiation Safety Officer or Infection Control Program Manager, to develop procedures for handling of hazardous materials. The following materials and wastes are managed:

- Chemical materials are identified and ordered by department leadership. Appropriate storage space is maintained by each department and reviewed as part of environmental tours in that area. Chemical materials are maintained in labeled containers, and team members are trained in understanding SDS, and in the appropriate and safe handling of the chemicals they use.

- Chemical waste is held in the generating department or accumulation room, until arrival of the licensed contractor. The contractor packs the chemicals, completes the manifest and removes the packaged waste. A disposal copy of the manifest is returned to verify legal disposal of the waste.

**Radioactive Risks- EC.02.02.01 EP6**

A process has been established and maintained for identifying, selecting, handling, storing, transporting, using, and disposing of hazardous radioactive materials and waste from receipt or generation through use and/or final disposal. The department leadership assures their safe selection, storage, handling, use, and disposal. The department is responsible for evaluating SDS and other documentation for hazards before purchase of departmental supplies to assure they are appropriate, and the least hazardous alternative practical. The department managers work with the Hazardous Material Coordinator / Regional Director of Facility Operations and appropriate individuals, such as the Radiation Safety Officer, to develop procedures for handling of hazardous materials:

- Radioactive material is handled subject to the hospital’s NRC License, and the Radiation Safety Officer manages their safety. Materials are handled in accordance with the requirements of the facility license.
Radioactive waste is held in a ‘hot room’ until decayed to background, then handled as the underlying hazard of the materials for disposal. The Radiation Safety Officer manages the waste and determines when it is no longer considered a radioactive hazard.

Hazardous Energy Sources- EC.02.02.01 EP7

Hazardous energy sources include, but are not limited to, ionizing and non-ionizing materials, and lasers will be selected and used in accordance to manufacturer’s recommendation and regulatory requirements. Specific policies pertaining to operational safety and use of each hazardous energy sources are found in each department that utilizes such equipment. The Department Director or a designated representative will conduct identification and evaluation of hazardous energy sources.

The primary source of hazard information will be from the manufacturer and/or supplier. Engineering controls and/or work practices should be developed to reduce exposures and potential injury. All team members involved in the operation and use of hazardous energy sources will be provided with appropriate training as part of their initial departmental orientation. Team members will follow the procedures established in the departmental policies and procedures to identify and mitigate exposure to potential risks associated with hazardous energy sources. Department directors will maintain required documentation including applicable regulations, required permits and licenses for each hazardous energy source.

Hazardous Medication Risks- EC.02.02.01 EP8

A process has been established and maintained for disposing of hazardous medications and waste. Department leadership assures safe disposal of their hazardous medications. The pharmacy department is responsible for evaluating available information for hazards prior to the purchase of hazardous medications to assure they are appropriate, and if possible is the least hazardous alternative practical. Department managers work with the Hazardous Material Coordinator / Regional Director of Facility Operations and appropriate individuals, to develop procedures for handling of hazardous medications.

- Chemotherapeutic (anti-neoplastic), other hazardous medications, and the materials used to prepare, administer, and control these materials are controlled and the waste materials collected for special disposal. Team members utilizing these materials are trained in the handling, and emergency response to spills or leaks.

- Chemotherapeutic residual waste and other hazardous medications are handled as part of the Regulated Waste stream, with additional labeling to assure appropriate incineration and final destruction.

- The disposal of hazardous pharmaceutical material is managed by the Pharmacy in accordance to the appropriate regulations and requirements.

Hazardous Gas & Vapor Risks- EC.02.02.01 EP9-10

The Hazardous Material Coordinator / Regional Director of Facility Operations is responsible for managing the program for minimizing risks of and monitoring of hazardous gases and vapors. Hazardous gas and vapors include formaldehyde, xylene, and Gluteraldehyde (i.e., Cidex), oxide and nitrous oxide gases; vapors generated by glutaraldehyde; cauterizing equipment, such as lasers; waste anesthetic gas disposal (WAGD), and laboratory rooftop exhaust (For full text, refer to NFPA 99-2012: 9.3.8;
If a test result was above the federal established action level, corrective action and additional testing should be done to demonstrate a safe working environment.

**Permits, Licenses, Manifests and Safety Data Sheets (SDS)- EC.02.02.01 EP11**

Permits and licenses have been obtained and maintained for handling and disposal of hazardous wastes, including chemical wastes, and radioactive materials from the appropriate federal, state, and municipal agencies and SDS for the chemical waste and hazardous medications waste.

Each load of hazardous waste removed from the facility is documented by a manifest, as mandated by federal or state agencies. The manifests have multiple copies, and a copy is left at the time the hazardous waste is removed. Another copy travels with the waste and is returned to the hospital once the wastes have been legally disposed of, to document the completion of the activity. These copies are matched, to assure that no load has been lost or misplaced and kept for the record.

Information identifying the hazards and emergency responses associated with these materials and wastes are available to team members, patients, and visitors at all times from such resources as SDS, Centers for Disease Control (CDC) Guidelines, Department of Transportation (DOT) and Nuclear Regulatory Commission (NRC) regulations. Various methods for retrieving the information are available from the Regional Director of Facility Operations, Internet, fax, and/or on-line severs. To ensure availability at all times, a hard copy of the SDS associated with the material is identified on the inventory in the Emergency, Security, or Materials Management Department.

**Process for Labeling Hazardous Material & Waste- EC.02.02.01 EP12**

All hazardous materials and wastes are properly labeled from receipt or generation until disposal including secondary containers. Storage areas are also properly labeled.

**Chemotherapeutic Waste:** Chemotherapeutic waste is placed into labeled containers (labeled with the OSHA and international symbol for carcinogenic wastes). These wastes are handled along with the red bag wastes. Bulk quantities of chemotherapeutic waste are handled as hazardous chemical waste.

**Chemical Materials & Waste:** Chemical materials are labeled throughout their use, handling, and disposal. The label is on the container prior to receipt or is placed on containers when filled or mixed within the hospital. Labeling is evaluated during environmental tours, to assure the labels are maintained and legible. In many cases the waste is labeled by the original chemical name, in other cases, where collection cans or containers are used, the container is labeled. These labels are required by the vendors of chemical disposal services to maintain the identity of the materials, and if the identity is lost, the materials are tested and analyzed to identify them for proper handling and disposal.

**Hazardous Energy Sources:** Hazardous energy sources are labeled in accordance to OSHA, NRC and other appropriate agencies. Warning alarms may also be installed to identify the risk or radiation when these sources are energized.

**Radioactive Materials & Waste:** Radioactive materials are labeled according to NRC, OSHA, or International agencies. Wastes are held to decay to background, when the labels are removed or covered, and wastes handled as the other hazards they may reflect. Labeling is evaluated during environmental tours, to assure the labels are maintained and legible.
Monitoring Staff- EC.02.02.01 EP17

Team members who are in close proximity to computed tomography (CT), positron emission tomography (PET), or nuclear medicine (NM) equipment will be monitored. Team members dosimetry results are reviewed at least quarterly by the Radiation Safety Officer to assess whether team members radiation exposure levels are “As Low As Reasonably Achievable” (ALARA) and below regulatory limits. The Radiation Safety Officer will report all badge reports and over exposures to the Radiation Safety Committee and the Environmental Safety Committee.

Radiation Exposure- EC.02.02.01 EP18

Team members who work with radiation will be checked periodically for radiation exposure. The method of exposure will be measured through exposure meter or badge tests. The results will be shared with the team member and the Environmental Safety Committee.

Trash Disposal- EC.02.02.01 EP19

The Environmental Services (EVS) Department has determined procedures for the proper routine storage and prompt disposal of trash.

Evaluating the Management Plan- EC.04.01.01 EP15

Every 12 months, the Hazardous Material Coordinator / Regional Director of Facility Operations evaluates the scope, objectives, performance, and effectiveness of the Plan to manage the risks of hazardous materials and waste to the team members, visitors, and patients.

References:
- TJC: Management of the Environment of Care – EC.01.01.01 EP6
- OSHA’s Hazard Communication standards through 29CFR1910
- NFPA 704 – Health and Reactivity Ratings
- NFPA 740 – Special Hazards
- UnityPoint Health – Allen policies

Reviewed/Revised Date: 1-EC-04-01: 3/99; Rev. 3/01, 9/04, 1/08, 12/10, 2/14, 3/17

Approvals:
- Environmental Safety Committee: November 15, 2019
- Policy and Procedure Committee: January 23, 2020