



## **Radiation Management Program**

### **Scope**

This policy applies to ionizing radiation sources of all types including those that are purchased, stored, or brought onto the Elizabethtown College Campus. This includes both exempt and non-exempt quantities and licensed and non-licensed materials. It includes singular sources, equipment that has sources in it, and equipment that is capable of producing radiation.

### **Purpose**

The purpose of this policy is to first ensure the safety, health, and well being of the College community. It is also intended to protect the building environment and ensure that equipment and materials in the vicinity of the radiation sources are not contaminated.

### **Process**

1. Prior to purchasing equipment that produces radiation or equipment that contains radioactive sources or quantities of radioactive materials contact must be made with the Department Chair and Chemical Hygiene Officer.
2. Prior to purchasing radioactive materials or equipment, arrangements must be made for licensing (if necessary), proper storage must be planned for, a determination of its useful educational value should be determined, and the proper disposition of the materials once its educational value has concluded. Additionally, training, testing and record keeping programs will be configured commensurate with the scope and extent of the licensed activities prior to radiation sources being brought onto College property. All programs will be completed in accordance with the specifications under 10CFR20:1101 & 2102.
3. Once the useful life of the radioactive material has been concluded, it must be properly characterized as to amount and activity, properly packaged and labeled and prepared for shipment. A hauler certified in DOT-RAM procedures will be scheduled to remove the material from the site and dispose of it. The hauler currently used is CLYM Environmental Services at 301-694-6000, attn: Charles Watts.

### **Inventory of Radioactive Materials**

- ETEC Autoscan Electron Microscope
- Defractometer – Diffractis 586 by Enraf Nonias. This piece of equipment generates x-rays and is licensed on #40-56063. Standard operating procedures include:
  1. Log in when operating the equipment
  2. Post operating procedures
  3. Post notification for student/faculty
  4. Document interlock checks
  5. Document survey readings with the Keithley Model 36100 survey meter
  6. Calibrate the Keithley survey meter annually and maintain the records

### **Responsibilities**

1. Faculty
  - a. Ensure that the radiation sources are appropriately labeled and stored.
  - b. Notify the Department Chair and the Chemical Hygiene Officer when purchasing or disposing of radiation sources or equipment containing sources or capable of generating radiation.
2. Chemical Hygiene Officer
  - a. Properly dispose of materials that have been, are, or could become radioactive.
  - b. Maintain the required records

### **Evaluation**

The Safety Committee shall be responsible for evaluating this policy annually.

### **Document History**



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