

AREA SURVEY OF RADIOACTIVE MATERIAL STORAGE

Policy: To provide guidelines for physics staff to adhere to regulations to provide a safe environment in accordance with Louisiana Department of Environmental Quality Regulations LAC33:XV.719.H and LAC33:XV.719.I

Procedure:

1. An area survey of radioactive material storage area - hot lab shall be conducted at least quarterly and documentation maintained for two years. In addition, whenever sources are handled or any item removed from the storage area, be it garbage, returning unused sources or persons, the area must be quickly surveyed with a Geiger-Muller survey meter to ensure that:
 - a. no radioactive material inadvertently removed from the storage area;
 - b. all radioactive sealed sources are accounted for and in their appropriate places;
 - c. all radioactive sealed sources are shielded appropriately and that the exposure rates in and outside the area is as low as reasonable achievable;
 - d. the stationary shielding equipment is properly placed;
 - e. LSUHSC Radioactive Materials License source activity limits are not exceeded;
 - f. Sealed Source Inventory records are posted, current, and complete.
 - g. Documentation of radiation levels are indicated on survey form
 - h. Concentration or quantities of radioactive material is posted
 - i. Potential hazard is posted adequately on door
 - j. Door is locked and limited personnel have access to storage area.

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2. Physicist will:
 - a. obtain a calibrated survey meter and record the serial number and calibration due date on an Area Survey Form.
 - b. use the radioactive check source stored in the survey meter cabinet to verify that the meter is functioning properly. Record the check source reading. If the readings do not match the value posted on the meter, obtain another meter and repeat evaluation. Send non-functioning survey meter for repair or calibration.
 - c. survey the storage area - hot lab, documenting the readings in the areas indicated on the form. Compare readings to previous surveys to ensure that exposure rates do not exceed the norm. Any reading above 20 mR/hr should be evaluated and reported by the physicist to the RSO.
 - d. open each of the drawers in the lead safe and count the sources. Make sure that all sources are sitting properly in their respective cells. Compare to the diagrams posted on the wall above the safes. Verify that the strontium-90 eye applicator box is on top of old floor safe and that the strontium-90 chamber check source is in the floor safe. If any source cannot be accounted for, notify the RSO immediately.
 - e. Verify that the limits in the LSUHSC Radioactive Materials Inventory list is posted on the wall and are not exceeded.
 - f. document the date and surveyor initials on form and place in the Radiation Oncology Physics Binder.
 - g. Storage area must be kept locked at all times.

LAC:33XV430.A.1
LAC:33XV430.A.2.a
LAC:33XV430.A.2.b
LAC:33XV430.A.2.c
LAC:33XV445.A
LAC:33XV451.E

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