

### Radiation Safety Rules

It is the responsibility of those working with radioactive materials to protect themselves and others from radioactive hazards arising from their work. Poor examples and careless working habits can unnecessarily expose others or contaminate facilities. The following safety rules shall be posted in every radiation use area and shall be observed at all times:

1. EATING, DRINKING, SMOKING, AND THE APPLICATION OF COSMETICS ARE PROHIBITED EXCEPT IN AREAS THAT HAVE BEEN SPECIFICALLY DESIGNATED AND POSTED AS FOOD ITEMS AREAS.
2. WORKING WITH RADIOACTIVE MATERIALS WHEN OPEN WOUNDS ARE PRESENT ON EXPOSED SURFACES OF THE BODY IS PROHIBITED UNLESS WOUNDS ARE PROPERLY DRESSED AND PROTECTED.
3. PIPETTING OR ANY SIMILAR OPERATION BY MOUTH SUCTION IS PROHIBITED.
4. PROTECTIVE GLOVES SHALL BE WORN WHEN HANDLING CONTAMINATED OR POTENTIALLY CONTAMINATED ITEMS.
5. DISPOSABLE ABSORBENT PADS AND REMOTE HANDLING DEVICES SHALL BE UTILIZED WHEN POSSIBLE.
6. HANDS SHOULD BE WASHED THOROUGHLY AFTER HANDLING RADIOACTIVE MATERIALS, ESPECIALLY BEFORE EATING.
7. FOOD ITEMS SHALL NOT BE STORED IN AREAS DESIGNATED FOR RADIOACTIVE MATERIALS OR CHEMICALS.
8. PERSONNEL MONITORING BADGES SHALL BE WORN IN CONTROLLED AREAS, AS APPLICABLE.
9. RADIOACTIVE WASTE SHALL BE DISPOSED OF ONLY IN THE CONTAINERS PROVIDED. NONSTANDARD CONTAINERS ARE PROHIBITED.
10. STOCK SHIPMENTS SHALL BE HANDLED AND STORED IN SPECIALLY DESIGNATED LOCATIONS.
11. GOOD HOUSEKEEPING SHALL BE MAINTAINED AT ALL TIMES.
12. SPILLAGE SHOULD BE PREVENTABLE, BUT IN THE EVENT OF SUCH AN ACCIDENT, FOLLOW THE ESTABLISHED EMERGENCY PROCEDURES.
13. CONDUCT RADIATION METER AND WIPE TEST SURVEYS FREQUENTLY. WHEN MEASUREMENTS ARE ABNORMAL, FIND THE CAUSE AND CORRECT.

### CHAPTER SEVEN

#### EMERGENCIES

A radiation emergency may exist if unplanned exposure to radioactive material is possible due to loss, misplaced material or accident; or if same loss, misplaced material or accident may result in contamination of facilities or spread of contamination out of control. Since an emergency requires immediate action to reduce harm or damage, mCi quantities should be considered an emergency and  $\mu$ Ci quantities should be considered an incident.

- **Emergency Procedure (mCi)**

Persons having knowledge of a possible radiation emergency should do the following:

1. Contain material as per lab emergency procedures
2. Keep uninvolved people out of area until cleanup or appropriate measures are completed.
3. Call the Department of Environment, Health and Safety to:
  - a. Report the problem, stating whether emergency help is needed.
  - b. Arrange for assistance and/or final survey.
  - c. Record results of final survey to document adequate response.

- **Incident Procedure ( $\mu$ Ci)**

Persons having knowledge of a radiation incident should do the following:

1. Contain the material to minimize contamination.
2. Keep uninvolved people out of area while cleaning up the spill, etc.
3. Report to the Radiation Safety Officer as deemed appropriate.
4. Record results of final survey to document adequate response.

The Radiation Safety Officer will:

1. Supervise cleanup or restriction of area until emergency no longer exists.
2. Determine that available personnel have cleaned area or have emergency in hand.
3. Determine if report must be made to regulatory agencies in case of loss of material or exposure of personnel, and make the necessary report.

Report all emergencies that threaten life or property to 911.

For other incidents requiring Radiation Safety assistance, call the Dept. of Environment, Health and Safety at 962-5507 during normal working hours, or 911 after-hours.

## RADIATION SOURCE SECURITY PROCEDURES

### 1. MISSING RADIATION SOURCE EMERGENCY PROCEDURES:

**STEP 1:** Stop ALL Building Trash Pickups **IMMEDIATELY. POST A GUARD AT THE DUMPSTER!!**

**STEP 2:** Contact Your Building Housekeeping Supervisor for Assistance.  
Housekeeping Supervisor: **Name:** \_\_\_\_\_ **Phone No.:** \_\_\_\_\_

**STEP 3:** As Soon As Steps 1 and 2 Are Underway, Immediately Notify the Following:  
Department of Environment, Health and Safety: 962-5507  
Campus Police (if after 5:00 p.m.): 911

**AUTHORIZED USERS ARE DIRECTLY RESPONSIBLE FOR THE COMPLETE SECURITY OF ALL RADIATION SOURCES AND RADIOACTIVE WASTES UNTIL PICKUP BY EHS. ANY LOSS OF RADIOACTIVE MATERIALS SERIOUSLY JEOPARDIZES YOUR USE PRIVILEGE. ASSURE PHYSICAL SECURITY OF ALL SOURCES BY ATTENDANCE OR LOCK AT ALL TIMES.**

### 2. SECURITY OF NEW RADIATION SOURCES:

A. Do not leave radioactive materials in a shipping box after receipt. Remove the radioactive material and put it into proper storage at once.

B. Always confirm that a radionuclide shipping box is empty, uncontaminated, and shipping labels are obliterated before releasing the box for disposal in the ordinary trash or recycling.

C. Be acutely aware of your radioactive inventory at all times.

### 3. SECURITY OF RADIOACTIVE WASTE:

A. Use only standard, posted containers provided by EHS for waste storage. Non-standard containers are prohibited.

B. Use only EHS approved intermediate radioactive waste containers. Never leave any containers unsecured. Empty intermediate containers at the end of each day.

C. If a waste pickup rejection is received, move **PROMPTLY** to correct the cause and call for another pickup. **DO NOT ALLOW RADIOACTIVE WASTE TO REMAIN UNDULY IN THE LABS!!**

D. Radiation label tape is inadequate as a warning to lay persons. **DO NOT DEPEND ON IT AS AN ADEQUATE WARNING!! USE STICKERS AND LABELS AVAILABLE FROM EHS.**