

Standard Operating Procedure
Receipt of Packages Containing Radioactive Materials



University of Texas, Austin

S.O.P.:	400-11
Title of S.O.P.:	Receipt of Packages Containing Radioactive Materials
Date of Issue:	27-Jun-06
Revision date:	14-Oct-11
Page 1 of 6	

OBJECTIVE:

To provide guidance for the safe, compliant, and efficient receipt of packages containing Radioactive Materials.

SCOPE:

This procedure applies to all personnel who are involved in the receipt of radioactive materials at any of the following locations:

UT Main Campus in Austin,

- Pickle Research Campus (PRC) in Austin,
- Dell Pediatric Research Institute (DPRI) in Austin,
- Marine Science Institute (MSI) in Port Aransas.

This includes radiation workers who survey packages, as well as non-radiation workers who are authorized to accept deliveries of packages from couriers such as FedEx or UPS.

PROCEDURE

A. RECEIVING PACKAGES

- 1) Delivery Locations: Packages containing radioactive materials shall only be received at the following locations, unless specifically authorized for receipt at an alternate location.
 - a. Main Campus: Environmental Health & Safety office, located in the Service Building
 - b. Pickle Research Campus: Packages may be delivered to individual buildings/laboratories
 - c. Dell Pediatric Research Institute: Room 1.114 (reception office)
 - d. Marine Science Institute: Room M207 (main office)
- 2) Confirm Delivery Person: When a carrier (e.g. FedEx) attempts to deliver a radioactive material package, confirm that the delivery person is in fact an employee of the carrier (e.g. wearing a company uniform, displaying a company ID, etc.).
- 3) Inspect for Damage: Visually inspect the package for damage such as tears, holes, or leaks. If there is any indication of damage, REFUSE TO ACCEPT THE PACKAGE from the carrier. Suggest that the delivery person remain in the area with the package to prevent the possible spread of radioactive contamination. Immediately notify your supervisor and someone in Radiation Safety of the damaged package. DO NOT HANDLE THE PACKAGE.

- 4) Inspect for Proper Packaging: The package must come from a licensed vendor and will be professionally prepared. If a package looks homemade, or you see oily spots, wires, or evidence of tampering, REFUSE TO ACCEPT THE PACKAGE and immediately notify your supervisor.

- 5) Accept Packages: If no damage, leaks, or evidence of tampering is observed, accept the packages. Confirm the number of packages being delivered matches the number of packages listed on the delivery receipt.

- 6) Secure Packages: Secure the packages until they can be retrieved by authorized personnel. Until that time, packages must either be placed inside a locked cabinet (the preferred method, if one is available), or under continuous surveillance. Under no circumstances should packages containing radioactive materials be left unattended in an area accessible to the public.

- 7) Contact a Radiation Worker:
 - a. Main Campus: Contact a member of Radiation Safety as soon as possible, but no later than 30 minutes after receipt of the packages.
 - b. Other Campuses: Contact a radiation worker in the purchaser's laboratory.

B. RADIATION SURVEYS

- 8) Time Requirement All labeled radioactive packages (i.e. White I, Yellow II, or Yellow III) must be surveyed within three hours of package receipt. Examples of these labels are shown below:



9) Radioactive Material Disposition Form Complete the Receipt Information section of the Radioactive Material Disposition Form.

10) Inspect for Damage: Inspect the package for physical damage and record the findings on the Disposition Form.

- a. If the package is significantly damaged and has already been accepted from the carrier, immediately measure the Transport Index (TI), surface dose rate, and surface contamination of the package. Record your findings on the Disposition Form.
- b. If the results are in excess of the limits specified in Step 15, immediately notify the Radiation Safety Officer or his designee. The RSO or his designee will immediately notify the final delivery carrier, potentially affected University and contractor personnel, and the Texas Department of State Health Services (TX DSHS).
- c. Secure the package to prevent excess contamination and personnel exposure.

11) Record Package Label: Record the package label and TI (if applicable) on the Disposition Form. If the package is not labeled, check the box entitled "None".

12) Contamination Survey:

- a. If the package is **not** labeled as a White I, Yellow II, or Yellow III, no contamination survey or dose rate survey is required. Mark the "No Survey Required" box in the Survey Results section of the Disposition Form.
- b. If the package is labeled as White I, Yellow II, or Yellow III, measure the removable surface contamination of the package. Record your findings on the Disposition Form in units of disintegrations per minute (dpm) per 100 cm².
- c. If the surface contamination survey results are in excess of the limits specified in Step 15, immediately notify the RSO or his designee. The RSO or his designee will immediately notify the final delivery carrier, potentially affected University and contractor personnel, and TX DSHS.
- d. Secure the package to prevent further contamination and personnel exposure.

13) Recordkeeping:

- a. Main Campus: Forward a copy of the completed Disposition Form along with the package to the appropriate Authorized User. After delivery of the package, file the completed original along with all supporting documentation in the appropriate file.
- b. Other Campuses: Forward the completed Radioactive Material Disposition Form along with all supporting documentation to the UT Radiation Safety Office, either by fax (512.475.6383) or email (Radstaff@austin.utexas.edu). Also keep a copy for your local files.

14) Special Note: The vast majority of radioactive material packages received by UT Austin are Type-A packages, which by definition may not contain greater than Type-A quantities (specified for each radionuclide in the regulations). If you do receive a package containing a greater-than-Type-A quantity of radioactive material, additional surveys such as an external dose rate survey may be required. In this case, contact the Radiation Safety Office for assistance.

15) Limits for external contamination and radiation levels:

For beta/gamma emitters, isotopes with half-life less than 10 days, and most uranium and thorium compounds - 2200 dpm/100 cm²

For all other alpha emitters – 220 dpm/100 cm²

Surface dose rate – 200 mrem/hr

Transport Index – 10

Regulatory References:

25TAC§289.202(ee)

25TAC§289.257 (ff)(6)

49CFR172.704

RADIOACTIVE MATERIAL DISPOSITION FORM

RECEIPT INFORMATION Received By: _____ Date: _____ Time: _____ Date Ordered: _____ PO#: _____ Vendor: _____ Isotope: _____ Compound: _____ Activity (mCi): _____ Assay Date: _____	AUTHORIZED USER
SURVEY RESULTS Date of Survey: _____ Time of Survey: _____ <input type="checkbox"/> No Survey Required Package Label: <input type="checkbox"/> None <input type="checkbox"/> White I <input type="checkbox"/> Yellow II <input type="checkbox"/> Yellow III Labeled TI: _____ Package Damaged? <input type="checkbox"/> No <input type="checkbox"/> Yes (describe): _____	
Measured surface contamination (dpm/100 cm ²): _____ Background (dpm): _____ Instrument Make/Model: _____ S/N: _____ Probe Make/Model: _____ S/N: _____	
Measured surface dose rate (mrem/hr): _____ Measured TI: _____ Instrument Make/Model: _____ S/N: _____	

Form Reviewed By: _____ Date: _____

USE RECORD										
Storage			Use				Disposal			Remarks
Amount	Form	Location	Amount	Form	Location	Date	Amount	Form	Method	

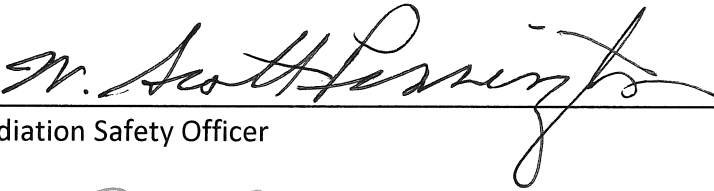
NOTE: PLEASE REMOVE OR DEFACE ALL RADIOACTIVE LABELS ON ALL EMPTY BOXES, VIALS, AND CONTAINERS BEFORE DISPOSAL

Signature

Print Name

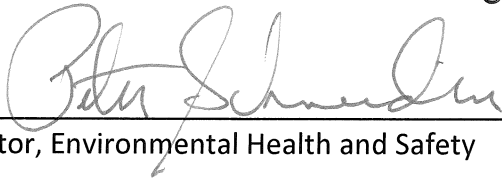
EID

Received by: _____



Radiation Safety Officer

10/14/11
Date



Director, Environmental Health and Safety

10/16/11
Date