

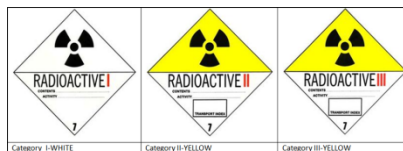


Marshall University Radiation Safety Office

RADIOACTIVE MATERIAL SHIPMENT RECEIPT FORM

Procedures for Safely Opening Packages Containing Radioactive Material

1. Packages will be monitored for surface contamination and external radiation levels within 3 hours after receipt if received during working hours or within first 3 hours of the next working day if received after working hours. All shipments of liquids will be tested for leakage.



Dose Rate Limits

<u>Color Code</u>	<u>Surface</u>	<u>One meter</u>
<u>WHITE I</u>	< 0.5 mR/hr	Background
<u>YELLOW II</u>	0.5- 50 mR/hr	<1 mR/hr
<u>YELLOW III</u>	50-200 mR/hr	1-10 mR/hr
<u>YELLOW III</u> exclusive use only	200-1000 mR/hr	>10 mR/hr

Source: DOT Labeling Packages (49 CFR 172.406)

2. For all packages, the following procedures for opening packages will be carried out:

- a. Put on gloves to prevent hand contamination
- b. Visually inspect package for any sign of damage (e.g. wetness, crushed). If damage is noted, stop procedure and notify RSO.

Open the package with the following precautionary steps:

- ✓ Open the outer package (following manufacturer's directions, if supplied) and remove packing slip.
 - ✓ Open inner package and verify that contents agree with those on packing slip. Compare requisition, packing slip and label on bottle.
 - ✓ Check integrity of final source container (i.e. inspect for breakage of seals or vials, loss of liquid and discoloration of packaging material).
- c. Monitor the packing material and packages for contamination before discarding.
 - 1) If contaminated, treat as radioactive waste.
 - 2) If not contaminated, obliterate radiation labels before discarding in regular trash.

3. Maintain records of the results of checking each package, using "RADIOACTIVE MATERIAL SHIPMENT RECEIPT FORM".

Refer to the NRC Regulation on *Procedures for receiving and opening packages* (10 CFR 20.1906) for further information.



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RADIOACTIVE MATERIAL SHIPMENT RECEIPT FORM

I. MU Order Number: RC-_____ Received (Date/Time)_____

User: _____ Survey Date/Time:_____

II. Condition of Package:

- GOOD (No Damage)
- Punctured/Crushed: _____
- Wet/Stains: _____
- Other: _____

III. Radiochemical:_____ Activity: _____

Ref. Date:_____ Volume_____

IV. DOT Radiation Label Affixed and Transport Index Indicated:

Label: None _____ White I _____ Yellow II _____ Yellow III _____ UN 2910 _____

V. Measured radiation levels: (Use Ludlum Model 3 Survey Meter)

One Meter from Surface: _____ mR/hr Background: _____ mR/hr
 Package Surface: _____ mR/hr

VI. Packing slips and Vial Contents coincide:	<u>YES</u>	<u>NO</u>	<u>Comment</u>
Radionuclide	<input type="checkbox"/>	<input type="checkbox"/>	_____
Activity	<input type="checkbox"/>	<input type="checkbox"/>	_____
Physical/Chemical Form	<input type="checkbox"/>	<input type="checkbox"/>	_____

VII. Wipe Test Results: (Use Beckman)

Background _____ cpm
 Outer Box _____ cpm, = _____ dpm/100cm²
 Source Container _____ cpm, = _____ dpm/100cm²
 Source Vial _____ cpm, = _____ dpm/100cm²

VIII. Survey of Packaging Material and Carton: _____ (cpm or mR/hr)

IX. Was the package shipped with dry ice: (YES/NO), was dry ice present upon receiving the package: (YES/NO)

X. Disposition of package after inspection: _____

XI. NRC Operations Center& Carrier Notification required: (YES / NO)

AGENCY _____ TIME/ DATE _____ PERSONS NOTIFIED _____

Surveyor: _____ Date: _____