

XXXX Nuclear Laboratory

Receipt and Safe Opening of Radioactive Materials Policy

Ordering - Authorization for the purchase of byproduct material

1. Radioactive material for approved diagnostic and therapeutic procedures may be ordered from a commercial radiopharmacy in accordance with the U. S. NRC and PA Dept. Environmental Resources radioactive material licenses.
2. Radioactive materials may be ordered from XXXXXX, XXXX Pharmacy Service Center, or XXXXXRadiopharmacy. All the above suppliers have copies of the XXX Nuclear Laboratory's U.S. NRC license and PA Department of Environmental Resources licenses.
3. Each pizza order of radioactive material will be authorized and ordered according to the protocol dose amount (by the authorized user or a supervised individual).
4. All diagnostic and therapeutic materials ordered shall be recorded on the Daily Radiopharmaceutical Order Log as part of the radioactive material tracking system. Record of the identity of the facility, supplier, and verification that ordered materials are authorized by the license for use shall be maintained.

Receipt - Procedure for receiving and opening packages

1. For delivery during normal working hours, carriers will be informed to deliver radioactive packages directly to the rainbow colored area in the hot lab. For deliveries during off-duty hours, designated individuals will be instructed to accept and secure the "after hours" radioactive packages. These individuals will be capable of determining whether packages are damaged. If the package is damaged, the carrier will not be allowed to leave and the radiation safety officer will be called. If a damaged package is received and contamination is found, the driver and the delivery vehicle will be surveyed for radioactive contamination.
2. The designated area of the lab where packages are delivered, received and opened shall be covered with disposable materials having plastic backing on one side and an absorbent material on the other.
3. Upon receipt of package, a meter survey and wipe survey must be performed within three hours of the arrival of the package or immediately upon start of business day. The results shall be recorded on the Package Survey Results form.
4. Gloves shall be worn to prevent hand contamination.
5. Check the ordering request to ensure that the material received is the material ordered.
6. Inspect the package visually for any signs of damage or wetness. If any sign of damage immediately notify the RSO and document.
7. Measure external radiation levels at 1 meter to determine whether the radiation limit for the package is exceeded (e.g., for White I-labeled package, the limit is 0 mrem/hour, for Yellow II the limit is 1 mrem/hour). If the limit is exceeded, notify the RSO.
8. If the limit is not exceeded, measure the external radiation level at the surface and again determine if it is above the limit for the package (e.g., for White I – labeled package, limit is 0.5 mrem/hour; for Yellow II the limit is 50.0 mrem/hour). If the limit is exceeded, notify RSO.

Label type	Package surface limit*	1-meter limit (transport index)*
White I	0.5 mrem/h	Background
Yellow II	50.0 mrem/h	1 mrem/h
Yellow III	200.0 mrem/h	10 mrem/h
* SI conversion: 1 mrem = 0.01 mSv		

9. The lab must immediately notify the final delivery carrier and the NRC Operations Center (301-816-5100) if external radiation levels exceed 200 mrem/hour at any point on the surface or 10 mrem/hour at 1 meter.
10. Monitor the external surfaces of package for radioactive contamination. If the wipe sample indicates that removable radioactive contamination exceeds the applicable limit (i.e., 6600 dpm for the wipe, based on a wiped surface of 300 cm² with a removable contamination limit of 22 dpm/cm²), radiation safety officer and determine if the package has contaminated any areas in the facility.
11. The laboratory will immediately notify the radiopharmacy delivering the material and the NRC (301-816-5100)
12. If the wipe test does not indicate any contamination above the limits, continue.
13. Remove the packing slip.
14. Open the outer package.
15. Open the inner package if applicable and verify that the contents agree with the packing slip.
16. Check the integrity of the final source container. If there is any reason to suspect contamination, wipe external surface to determine if there is any removable radioactivity.
17. Monitor the packing material and empty package with a radiation detection survey meter before discarding if applicable. If this material is contaminated, treat it as radioactive waste. If not remove or obliterate the radiation labels before discarding in the normal trash or recycling.
18. Document surveys for each package and retain for at least 3 years.

SAMPLE

Written: _____	Date: _____
Revised: _____	Date: _____
Reviewed: _____	Date: _____
_____	Date: _____
_____	_____