**Work Scope:**

All activities that involve the delivery of rad materials to CAES, transfer of rad materials between rad labs, or the removal of rad materials from CAES.

**Applicability:**

Technical Safety Office personnel or their designees.

**Radiological Conditions:**

Vary as a function of the materials being handled.

**Requirements:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Dosimetry Type: | Whole body beta/gamma dosimeter | | | | | Whole body neutron dosimeter | |
|  | Multi-pack type: |  | | | | | |
|  | Electronic dosimeter (ED) | | | Extremity dosimetry (optional at discretion of performer | | | |
|  | Continuous | | End of work | | At job start | | Periodic |
| * Notifications: TSO or designee shall notify the Lab Lead or CAES Safety Officer prior to handling and movement of rad material. * Inventory: For transfer between labs, make a chain-of-custody entry in the CAES rad inventory database/log prior to movement of rad materials in CAES. * Personnel Safety: TSO or designee ensure all personnel working in area are notified of planned action and that only essential personnel are in the area when rad materials are being handled. * Controls: In conjunction with lab lead and CSO decide what signage and other controls are needed during movement of materials. * Personal Protection Equipment: Always wear Nitrile gloves, lab coat, and safety glasses when handling rad materials. * Verification: TSO or designee verifies the material activity levels are consistent with documented/expected levels. * Inventory: Update CAES radiological inventory database at completion of the activity. * Notifications: Notify lab lead or CSO at completion of the activity. | | | | | | | |

**Contamination Control:**

* Always check for contamination on the outside of containers upon receipt and before movement or removal of rad materials.
* Always change-out and dispose of Nitrile gloves following the handling of potentially contaminated sources.

**Survey Requirements:**

* Follow ISU personnel survey requirements for entering and leaving all posted areas.
* Use established ISU procedures for conducting contamination surveys.
* Survey tools used to handle materials after use.
* Perform detailed surveys of equipment following the removal of rad materials.

Detailed surveys will consist of a combination of smears and direct scans as appropriate to verify potentially affected areas are not contaminated.

**Evaluation Points:**

* Instruments must be surveyed for contamination before and after the handling of rad materials.
* Frisk when exiting the areas where rad materials are handled.

**Limiting Conditions That Void the RSP:**

* Materials delivered to CAES: If the measured activity levels of materials are not consistent with the types and levels specified in the shipping manifest, the materials should be immediately secured and the RSO notified.
* Materials identified for transfer or removal: If the observed activity levels of materials are not consistent with the types and levels specified in the CAES Inventory database, the materials should be immediately secured and the RSO notified.
* Smearable contamination > 70 dpm/100cm2  beta/gamma and/or 7 dpm/100cm2 alpha is measured after initial attempts to remove contamination from contamination area or equipment.
* Radiation levels > 70 mR/hr at 30 cm.
* Personnel frisk identifies contamination when exiting the work area.

**If any of these conditions are met, Stop Work, place materials in safe condition, cease use of this RWP as written and notify the Radiation Safety Officer, Lab Lead and CSO.**

**Best Practices:**

* Follow good ALARA Practices when handling radiological sources:
* Minimize time in which radioactive sources are exposed.
* Use tongs and similar long-handled tools to handle materials and increase distance to source.
* Set up portable shielding as appropriate to minimize field during materials handling.
* Perform surveys of work areas.

