Radioactive Material Shipment Packaging and Documentation Flow Chart

(1) Verify return source is free of removable contamination (leak test performed within last 6 months is adequate)
(2) Package return source, including Return Packing List, (F-108) inside the original cardboard shipping box using original packing materials
(3) Seal shipping box with packing tape; use tamper indicating tape or apply tamper indicating label
(4) Perform radiation survey on-contact with package; determine maximum on-contact radiation level

Maximum on-contact radiation level ≥ 0.5 mR/hr?

YES
(5) Determine the radionuclide(s) and current activity(ies) in units of MBq contained in the package
(6) Determine the T.I. (unitless number equal to the max. dose rate in mR/hr at 1 m from package surface) Must be ≤ 1.0 to label Yellow II
NO
(7) Complete Yellow II Labels. Record radionuclide(s) and Total activity in the Contents and Activity lines. Record the T.I. from Step (6) in the Transport Index Block.

Return source shipped as Type A Quantity, UN 2915 in accordance with applicable sections and paragraphs of Title 49 and guidance provided

Return source shipped as Limited Quantity, UN 2910 in accordance with §173.421 and guidance provided:

UN 2915

• DO NOT remove, cover or deface any of the original labels attached to the shipping package unless instructed below.
• Apply the following Labels, (supplied), to the package:
  o Yellow II Labels completed in Step (7) placed over the original Yellow II Labels on the package.
  o Cargo Aircraft Only Labels on same side as the Yellow II Labels
  o Radioactive Material Type A Package UN 2915 sticker (same side as one of the Yellow II labels if not on original)
  o Return Authorization (F-115)
• Remove UN 2910 sticker if on original package.
• Remove original address and FedEx shipping labels
• Complete Block 1 of the FedEx Airbill
• Complete Block 6 of the FedEx Airbill, by checking ☒ Yes as per attached Shipper’s Declaration.
• Complete a Dangerous Goods (DG) form, the following information must be included on the form:
  o Proper shipping name = Radioactive material, Type A package
  o UN Number = 2915, Class = Class 7
  o Radionuclide(s) and total activity from Step (5)
  o Transport Index as T.I. = (value from Step (6))
  o Type of package = DOT Type 7A
  o Label = Yellow II
  o Package Description = fiberboard box
  o Dimensions – vary, refer to original DG Form.
  o Shipper’s 24 hr Emergency Phone Number – IS NOT provided by RadQual or International Isotopes.
  o Place 3 copies of the DG form, Guide 162, and the Airbill in FedEx Pouch provided.

NOTES
- Shipper’s Declaration of Dangerous Goods forms available on the web links provided on Form F-109.
- Form must be TYPED with RED DASHED border.
- Shipper responsible for all shipping costs, unless other arrangements have been made.
- Shipper may select a carrier other than FedEx
- Package prepared by qualified and trained shipper.
- Refer to Title 49 §§172.101, 172.204, 172.403, 172.704, 173.403, 173.433. Other requirements apply.