

<p>EXCEPTED PACKAGE SHIPMENTS</p> <p>2908 Radioactive material, excepted package, empty packaging 2909 Radioactive material, excepted package-articles manufactured from natural uranium or depleted uranium or natural thorium 2910 Radioactive material, excepted package-limited quantity of material 2911 Radioactive material, excepted package-instruments or articles</p> <p>PACKAGING: Excepted packaging; entire contents could be released under accident conditions.</p> <p>RADIOLOGICAL INFORMATION Activity: Very low; MBq-GBq range. Dose rate: Very low [< 0.005 mSv/h (0.5 mrem/h)] at surface of undamaged package. Contamination: low levels of removable contamination possible from damaged package.</p> <p>COMMUNICATION Excepted from shipping papers, marking and labeling, however, UN ID number will be marked on outer package and "Radioactive" will be marked on either outer or inner packaging.</p> <p>ERG GUIDE NUMBER: 161</p>	<p>LSA and SCO SHIPMENTS</p> <p>(Low Specific Activity and Surface Contaminated Objects)</p> <p>2912 Radioactive material, low specific activity (LSA-I) 3321 Radioactive material, low specific activity (LSA-II) 3322 Radioactive material, low specific activity (LSA-III) 2913 Radioactive material, surface contaminated objects (SCO-I or SCO-II)</p> <p>PACKAGING: Unpackaged; bulk shipments; Type A, Type B; IP-1, 2, or 3. Not all packaging is designed to withstand accident conditions without release of contents. SCO materials will not be readily dispersible; LSA materials can be very dispersible. Majority of these shipments are waste materials being shipped for disposal.</p> <p>RADIOLOGICAL INFORMATION Activity: Low to Moderate (MBq – TBq). Dose rate: Low – High [0.005 mSv/h – 10 mSv/h (0.5 mrem/h - 1 R/h)] at surface of undamaged package. Contamination: Moderate to High levels of removable contamination possible from damaged package with dispersible materials (e.g., contaminated soils).</p> <p>COMMUNICATION Shipping papers; most shipments under exclusive use are excepted from marking and labeling, however packages/items will be marked "Radioactive-LSA or -SCO," as appropriate; and placarded Radioactive.</p> <p>ERG GUIDE NUMBER: 162</p>	<p>FISSILE MATERIAL SHIPMENTS</p> <p>3327 Radioactive material, Type A package, fissile 3333 Radioactive material, Type A package, special form, fissile 3328 Radioactive material, Type B(U) package, fissile 3329 Radioactive material, Type B(M) package, fissile</p> <p>PACKAGING: Type A and Type B packaging; most fissile packages have multiple barriers and/or shielding, and are designed to withstand severe accident conditions, including impact, fire, and water immersion, with minimal or no release of contents and remaining subcritical.</p> <p>RADIOLOGICAL INFORMATION Activity: Moderate – High (GBq – 1,000's of TBq). Dose rate: Low – High [0.005 mSv/h – 10 mSv/h (0.5 mrem/h - 1 R/h)] at surface of undamaged package. Contamination: Materials may be in dispersible form; however, integrity of the package will greatly reduce probability of release of material from package.</p> <p>COMMUNICATION Shipping papers; marking (proper shipping name, ID#, "Type A," "Type B," and trefoil symbol); labeling based upon radiation levels and also for any subsidiary hazards; fissile label; placarded based upon labeling.</p> <p>ERG GUIDE NUMBER: 165</p>
<p>TYPE A PACKAGE SHIPMENTS (non-fissile)</p> <p>2915 Radioactive material, Type A package 3332 Radioactive material, Type A package, special form</p> <p>PACKAGING: Type A package; designed to withstand rough handling without release of contents; packages usually contain multiple barriers and/or shielding, however, entire contents could be released under severe accident conditions; special form sources will not be dispersible, but may have high associated dose rates. Contains non life-endangering amounts of radioactive material.</p> <p>RADIOLOGICAL INFORMATION Activity: Moderate – High (GBq – 1,000's of TBq). Dose rate: Low – High [0.005 mSv/h – 10 mSv/h (0.5 mrem/h - 1 R/h)] at surface of undamaged package, very high dose rates possible from damaged packages with special form sources. Contamination: Breached packages may release significant quantities of dispersible material (if not in special form), however integrity of package should greatly reduce the probability of complete release of contents except under severe accident conditions.</p> <p>COMMUNICATION Shipping papers; marking (proper shipping name, ID#, "Type A"); labeled "Radioactive" based upon radiation levels and also for any subsidiary hazards; placarded based upon labeling.</p> <p>ERG GUIDE NUMBER: 163 / 164</p>	<p>TYPE B PACKAGE SHIPMENTS (non-fissile)</p> <p>2916 Radioactive material, Type B(U) package 2917 Radioactive material, Type B(M) package</p> <p>PACKAGING: Type B packaging; most packages have multiple barriers and shielding; all are designed to withstand severe accident conditions, including impact, fire and water immersion, with minimal or no release of contents.</p> <p>RADIOLOGICAL INFORMATION Activity: Moderate – High (GBq – 1,000's of TBq). Dose rate: Low – High [0.005 mSv/h – 10 mSv/h (0.5 mrem/h - 1 R/h)] at surface of undamaged package. Contamination: Materials may be in dispersible form, however, integrity of package should greatly reduce the probability of complete release of contents even under severe accident conditions.</p> <p>COMMUNICATION Shipping papers; marking (proper shipping name, ID#, "Type B," and trefoil symbol); labeled "Radioactive" based upon radiation levels and any subsidiary hazards; placarded based upon labeling.</p> <p>ERG GUIDE NUMBER: 163</p>	<p>URANIUM HEXAFLUORIDE (UF_6) SHIPMENTS</p> <p>2978 Radioactive material, uranium hexafluoride 2977 Radioactive material, uranium hexafluoride, fissile</p> <p>PACKAGING: UF_6 is shipped in specially designed cylinders that are pressure vessels; the material is in solid form when shipped, but will convert to Hydrogen Fluoride gas if package is breached and material is exposed to moisture. Non-fissile shipments with less than 100 g UF_6 could be in bare cylinders; UF_6 greater than 100 g will have thermal overpacks; fissile shipments will be in protective overpacks that are designed to withstand severe accident conditions including impact, fire and water immersion.</p> <p>RADIOLOGICAL INFORMATION Activity: Low to Moderate (MBq – TBq). Dose rate: Low – Moderate [0.005 mSv/h – 0.5 mSv/h (0.5 mrem/h to 50 mrem/h)] at surface of undamaged package. Contamination: Moderate levels of removable contamination possible from damaged package with dispersible materials; UF_6 is also a corrosive material, and when exposed to water, will produce a highly toxic gas.</p> <p>COMMUNICATION Shipping papers; marking; labeled "Radioactive," based upon radiation levels and also "Corrosive;" placarded Radioactive and Corrosive.</p> <p>ERG GUIDE NUMBER: 166</p>