

Hazard ID Checklist

Flammables (Gases or Liquids)		Gases		Hazardous Chemicals		Other Hazardous /Toxic Materials	
Type:		Type:			Cyanide plating materials	List any other hazardous/toxic materials planned for use:	
Flow rate:		Flow rate:			Hydrofluoric Acid		
Capacity:		Capacity:			Methane		
Radioactive Sources		Metals of Concern			photographic developers		
	Permanent Installation		Beryllium (Be)		PolyChlorinated Biphenyls (PCBs)		
	Temporary Use		Lithium (Li)		Scintillation Oil		
Type:			Mercury (Hg)		Triethylamine (TEA)		
Strength:			Lead (Pb)		Tri-Methylamino Ethyl (TMAE)		
Nuclear Materials*			Tungsten (W)		Other: (Activated Water?)		
Name:			Uranium (U)				
Weight:			Other:	Lasers			
Mechanical Structures		Electrical Equipment			Permanent installation		
	Lifting Devices		Cryo/Electrical devices		Temporary installation		
	Motion Controllers		Capacitor Banks		Alignment		
	Scaffolding/ Elevated Platforms		High Voltage/High Amperage		Calibration		
	Other:		<u>Exposed</u> Equipment over 50 V	Type:			
			Non-commercial/Non-PREP	Wattage:			
			Modified Commercial/PREP	MFR Class:			
Vacuum Vessels		Pressure Vessels		Cryogenics			
Inside Diameter:		Inside Diameter:			Inert cryogenic liquids		
Operating Pressure:		Operating Pressure:			Hydrogen cryo liquids		
Window Material:		Window Material:			Other cryo liquids		
Window Thickness:		Window Thickness:					

I. *NUCLEAR MATERIALS

Reportable Elements and Isotopes / Weight Units / Rounding

Name of Material	MT Code	Reporting Weight Unit Report to Nearest Whole Unit	Element Weight	Isotope Weight	Isotope Weight %
Depleted Uranium	10	Whole Kg	Total U	U-235	U-235
Enriched Uranium	20	Whole Gm	Total U	U-235	U-235
Plutonium-242 ¹	40	Whole Gm	Total Pu	Pu-242	Pu-242
Americium-241 ²	44	Whole Gm	Total Am	Am-241	–
Americium-243 ²	45	Whole Gm	Total Am	Am-243	–
Curium	46	Whole Gm	Total Cm	Cm-246	–
Californium	48	Whole Microgram	–	Cf-252	–
Plutonium	50	Whole Gm	Total Pu	Pu-239+Pu-241	Pu-240
Enriched Lithium	60	Whole Kg	Total Li	Li-6	Li-6
Uranium-233	70	Whole Gm	Total U	U-233	U-232 (ppm)
Normal Uranium	81	Whole Kg	Total U	–	–
Neptunium-237	82	Whole Gm	Total Np	–	–
Plutonium-238 ³	83	Gm to tenth	Total Pu	Pu-238	Pu-238
Deuterium ⁴	86	Kg to tenth	D ₂ O	D ₂	–
Tritium ⁵	87	Gm to hundredth	Total H-3	–	–
Thorium	88	Whole Kg	Total Th	–	–
Uranium in Cascades ⁶	89	Whole Gm	Total U	U-235	U-235

¹ Report as Pu-242 if the contained Pu-242 is 20 percent or greater of total plutonium by weight; otherwise, report as Pu 239-241.

² Americium and Neptunium-237 contained in plutonium as part of the natural in-growth process are not required to be accounted for or reported until separated from the plutonium.

³ Report as Pu-238 if the contained Pu-238 is 10 percent or greater of total plutonium by weight; otherwise, report as plutonium Pu 239-241.

⁴ For deuterium in the form of heavy water, both the element and isotope weight fields should be used; otherwise, report isotope weight only.

⁵ Tritium contained in water (H₂O or D₂O) used as a moderator in a nuclear reactor is not an accountable material.

⁶ Uranium in cascades is treated as enriched uranium and should be reported as material type 89.

II. OTHER GAS EMISSIONS

Greenhouse Gases (Need to be tracked and reported to DOE)

- Carbon Dioxide, including CO₂ mixes such as Ar/CO₂
- Methane
- Nitrous Oxide
- Sulfur Hexafluoride
- Fluorinated Gases (eg; Hydrofluorocarbons, perfluorocarbons)
- Nitrogen Trifluoride