

Radioactive Contamination Permissible Limits

Revision Date: 06/13/18

Radioactive contamination surveys are conducted for specific radioactive contaminants and for specific areas on the low-level radioactive waste (LLRW) containers.

Radioactive Contamination Limits for Removable Contamination (External Surfaces)

The following table lists the removable radioactive contamination limits for external container surfaces:

CONTAMINANT	MAXIMUM PERMISSIBLE CONTAMINATION LIMITS	
	$\mu\text{Ci}/\text{cm}^2$	dpm/cm^2
<ul style="list-style-type: none"> Beta-gamma emitting radionuclides All radionuclides with half-lives less than ten days Natural uranium Natural thorium Uranium-235 	<ul style="list-style-type: none"> Uranium-238 Thorium-232 Thorium-228 and Thorium-230 when contained in ores or physical and chemical concentrates 	10^{-5} 24
All other alpha emitting radionuclides	10^{-6}	2.4

[49 CFR 173.443 Table 9]

Locations to Survey for Radioactive Contamination

The following table states where each type of LLRW container must be surveyed for the presence of external radioactive contamination:

TYPE OF LLRW CONTAINER	LOCATIONS TO SURVEY
Solid waste yellow fiber drums	Lids, sides, bottom
Jugs	Cap, handle, sides, and bottom
Scintillation vial boxes	All four sides, top, and bottom
<ul style="list-style-type: none"> Sharps pails Commercially-available approved LLRW containers 	Lid, handle, sides, and bottom
Stock vial boxes	<ul style="list-style-type: none"> Box: All four sides, top, and bottom Pail: Lid, handle, sides, and bottom
Lead Objects	All lead pigs, bricks, sheets, or other lead objects must be swiped on all sides or surfaces