Radioactive Contamination Permissible Limits

Revision Date: 04/29/26

Applies To: Generators of Radioactive Waste

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 information lists the removable radioactive contamination limits for external container surfaces:

Maximum Permissible Contamination Limits

$\mu Ci/cm^2 - 10^{-5}$ or $dpm/cm^2 - 24$

- Beta-gamma emitting radionuclides
- All radionuclides with half-lives less than ten days
- Natural uranium
- Natural thorium
- Uranium-235
- Uranium-238
- Thorium-232
- Thorium-228 and Thorium-230 when contained in ores or physical and chemical concentrates

Maximum Permissible Contamination Limits

$\mu Ci/cm^2 - 10^{-6}$ or $dpm/cm^2 - 2.4$

- All other alpha emitting radionuclides

(49 CFR 173.443 table 9)

Locations to Survey for Radioactive Contamination

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

- Solid waste yellow fiber drums
  - Lids, sides, bottom
- Jugs
  - Cap , handle, sides, and bottom
- Scintillation vial boxes
  - All four sides, top, and bottom
- Sharps pails / Commercially - available approve LLRW containers
  - Lid, handle, sides, and bottom

- Stock vial boxes
    - Box- all four sides, top and bottom
    - Pail- Lid, handle, sides and bottom
- Other
    - All lead pigs, bricks, sheets, or other lead objects must be swiped on all sides or surfaces