



Regulatory Infrastructure

Public Meeting on Blending of Low-Level Radioactive Waste

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Purpose

- **Identify and describe regulations and guidance related to blending**
- **Provide a baseline**

NRC Regulations in 10 CFR

- **NRC regulations do not define the terms blend, mix, dilute**
- **10 CFR Part 20, Appendix G**
- **10 CFR Part 61**

Waste Classification Table

10 CFR 61.55

Radionuclide	Concentration, Ci/m ³		
	Col. 1 (Class A limit)	Col. 2 (Class B limit)	Col. 3 (Class C limit)
Total of all radionuclides with < 5 yr half-life	700	n/a	n/a
H-3	40	n/a	n/a
Co-60	700	n/a	n/a
Ni-63	3.5	70	700
Ni-63 in activated metal	35	700	7000
Sr-90	0.04	150	7000
Cs-137	1	44	4600

If concentration does not exceed column 1, waste is Class A. If concentration is > col. 1 and < col. 2, waste is Class B. If concentration is > col. 2 and < col. 3, waste is Class C. If > col. 3, waste is not acceptable for near-surface disposal

Blending Guidance

- 1995 Concentration Averaging Branch Technical Position
- 10 CFR 61.55(a)(8) – waste concentration may be averaged
- Mixing (blending) of homogeneous waste addressed (one of 8 categories in BTP)
- Factor of 10 rule
- Operational efficiency or occupational dose reduction considerations
- Other factors

Other

- **1981 Volume Reduction Policy Statement**
- **Risk-informed, performance-based regulation**
- **Disposal vs storage**

Summary

- **Regulations do not prohibit or explicitly address blending of LLW**
- **Waste classification is related to disposal**
- **Blending addressed in guidance**
- **Other factors**