



Keeping Up with Regulatory Changes



APPENDIX B
Regulations and Standards

TABLE B - 1

**Department of Energy Radiation Protection Standards
and Concentration Guides ***

Effective Dose Equivalent Radiation Standard for Protection of the Public

Continuous exposure of any member of the public from routine activities:

100 mrem/year (1 mSv/year) from all exposure pathways

**Department of Energy Derived Concentration Guides (DCGs)
for Ingestion of Drinking Water and Inhaled Air ($\mu\text{Ci}/\text{mL}$)**

<u>Radionuclide:</u>	<i>In Air</i>	<i>In Water</i>	<u>Radionuclide:</u>	<i>In Air</i>	<i>In Water</i>
H-3	1E-07	2E-03	Th-232	7E-15	5E-08
C-14	6E-09	7E-05	U-233	9E-14	5E-07
Fe-55	5E-09	2E-04	U-234	9E-14	5E-07
Co-60	8E-11	5E-06	U-235	1E-13	6E-07
Ni-63	2E-09	3E-04	U-236	1E-13	5E-07
Sr-90	9E-12	1E-06	U-238	1E-13	6E-07
Zr-93	4E-11	9E-05	Np-239	5E-09	5E-05
Nb-93m	4E-10	3E-04	Pu-238	3E-14	4E-08
Tc-99	2E-09	1E-04	Pu-239	2E-14	3E-08
Ru-106	3E-11	6E-06	Pu-240	2E-14	3E-08
Rh-106m	6E-08	2E-04	Pu-241	1E-12	2E-06
Sb-125	1E-09	5E-05	Am-241	2E-14	3E-08
Te-125m	2E-09	4E-05	Am-243	2E-14	3E-08
I-129	7E-11	5E-07	Cm-243	3E-14	5E-08
Cs-134	2E-10	2E-06	Cm-244	4E-14	6E-08
Cs-135	3E-09	2E-05	Gross Alpha		
Cs-137	4E-10	3E-06	(as Am-241)	2E-14	3E-08
Pm-147	3E-10	1E-04	Gross Beta		
Sm-151	4E-10	4E-04	(as Ra-228)	3E-12	1E-07
Eu-152	5E-11	2E-05			
Eu-154	5E-11	2E-05			
Eu-155	3E-10	1E-04			

* Ref: DOE Order 5400.5 (February 8, 1990). Effective May 8, 1990.

Environmental Standards and Regulations

The following environmental standards and laws are applicable, in whole or in part, to the West Valley Demonstration Project:

DOE Order 5400.1, "General Environmental Protection Program," November 1988.

DOE Order 5480.1, "Requirements for Radiation Protection," August 1981.

DOE Order 5480.1A, "Environmental Protection, Safety, and Health Protection Program for DOE Operations," August 1981.

DOE Order 5484.1, "Environmental Protection, Safety, and Health Protection Information Reporting Requirements," February 1981.

Clean Air Act. 42 USC 1857 et seq., as amended, and implementing regulations.

Federal Water Pollution Control Act (Clean Water Act). 33 USC 1251, as amended, and implementing regulations.

Resource Conservation and Recovery Act. 42 USC 6905, as amended, and implementing regulations.

National Environmental Policy Act, PL 911-190. 42 USC 4321-4347, January 1, 1970, as amended, and implementing regulations.

Comprehensive Environmental Response, Compensation, and Liability Act. 42 USC 960 (including Superfund Amendments and Reauthorization Act of 1986), and implementing regulations.

Toxic Substances Control Act. 15 USC 2610, as amended, and implementing regulations.

Environmental Conservation Law of New York State.

The standards and guidelines applicable to releases of radionuclides from the West Valley Demonstration Project are found in DOE Order 5400.5.

Ambient water quality standards contained in the State Pollutant Discharge Elimination System (SPDES) permit issued for the facility are listed in Table C - 5.1 in Appendix C - 5. Airborne discharges are also regulated by the Environmental Protection Agency under the National Emission Standards for Hazardous Air Pollutants, 40 CFR 61. 1984.

The above list covers the major activities at the West Valley Demonstration Project but does not constitute a comprehensive enumeration.

TABLE B - 3

West Valley Demonstration Project Environmental Permits
Calendar Year 1990

Permit Number	Issued by	Expiration	Type of Permit
042200-0114-00002 WC	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Boiler
042200-0114-00003 WC	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Boiler
042200-0114-00004 WR	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Incinerator ¹
042200-0114-0010 WI	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Low-level Waste Treatment Facility Nitric Acid Storage Tank
042200-0114-014D1 WI	NYSDEC	9/94 ²	Certificate to Operate Air Contamination Source: Nitric Acid Bulk Storage Tank Vent
042200-0114-CSS01	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Cement Storage Silo Ventilation System
042200-0114-15F-1	NYSDEC	9/94 ³	Certificate to Operate Air Contamination Source: Analytical & Process Chemistry Laboratory Equipment
042200-0114-33157	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Tank #33157 Vent
042200-0114-33154	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Tank #33154 Vent
042200-0114-14D-2	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Tank #14D-2 Vent
042200-0114-14D2A	NYSDEC	9/94	Certificate to Operate Air Contamination Source: Tank #14D-2A Vent
NY-0000973	NYSDEC	9/90 ⁴	State Pollutant Discharge Elimination System (SPDES) permit
WVDP-187-01	EPA		Certificate to Operate Radioactive Air Source: Building 01-14 Ventilation System ⁵
WVDP-287-01	EPA		Certificate to Operate Radioactive Air Source: Contact Size Reduction & Decontamination Facility ⁵

TABLE B - 3 (concluded)

West Valley Demonstration Project Environmental Permits
Calendar Year 1990

Permit Number	Issued by	Expiration	Type of Permit
WVDP-387-01	EPA		Certificate to Operate Radioactive Air Source: Supernatant Treatment Ventilation System ⁵
WVDP-487-01	EPA		Certificate to Operate Radioactive Air Source: Low-level Waste Supercompactor Ventilation System ⁵
WVDP-587-01	EPA		Certificate to Operate Radioactive Air Source: Outdoor Ventilation System ⁵
WVDP-687-01	EPA		Certificate to Operate Radioactive Air Source: Process Building Ventilation System ⁵
PRT-747595	U.S. DOI FISH & WILDLIFE SERVICE; NYSDEC	12/31/90 ⁶	Depredation Permit
N/A ⁷	NYSDEC	N/A ⁷	Hazardous Waste Treatment and Storage Interim Status Application (RCRA Part A)

¹ Nonradioactive waste is removed to a commercial landfill and is not incinerated. The permit became inactive in February 1990.

² Permit was terminated during 1990.

³ Application pending in 1990 for this process. Approval documentation received January 1991.

⁴ Renewal application was submitted to the New York State Department of Environmental Conservation in May 1990.

⁵ National Emission Standards for Hazardous Air Pollutants (NESHAP) temporary permits are valid until the final permits are issued.

⁶ Permit renewal request submitted to Fish and Wildlife Service in January 1991.

⁷ Will operate under interim status until NYSDEC requests Part B of RCRA application.