

# Summary DOE Spent Fuel Report

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**<http://www.inl.gov>**

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Spent Fuel Management Facilities Government<sup>1</sup> Facilities

State	Installation	Facility	Function	Licensee	Regulator	SF Source <sup>2</sup>	Inventory	Units	Estimated Activity (Bq) for 2017 <sup>4</sup>
Colorado	U.S. Geological Survey (Denver)	Research/Test Reactor	Wet Storage	U.S. Geological Survey	NRC	2	0.04	MTHM	5.35E+14
	Fort St. Vrain	ISFSI	Dry Storage	DOE	NRC	2	14.73	MTHM	1.53E+17
Idaho	Idaho National Lab	Multiple INL Facilities	Wet Storage	DOE	DOE	1,2	2.93	MTHM	1.58E+17
		Multiple INL Facilities	Dry Storage	DOE	DOE	1,2	195.74	MTHM	1.70E+18
		ISFSI <sup>3</sup>	Dry Storage	DOE	NRC	2	81.59	MTHM	9.25E+16
Illinois	Argonne National Lab	ANL Spent Fuel Storage	Dry Storage	DOE	DOE	1,2	0.12	MTHM	3.90E+15
Maryland	National Institute of Standards and Technology (Gaithersburg)	Research/Test Reactor	Wet Storage	National Institute of Standards and Technology	NRC	2	0.02	MTHM	1.14E+16
	Armed Forces Radiobiology Research Institute (Bethesda)	Research/Test Reactor	Wet Storage	Armed Forces Radiobiology Research Institute	NRC	1	0.02	MTHM	3.03E+14
New Mexico	Sandia National Lab	Multiple SNL Facilities	Dry Storage	DOE	DOE	1,2	0.24	MTHM	5.89E+16
Rhode Island	Rhode Island Atomic Energy Commission (Narragansett)	Research/Test Reactor	Wet Storage	Rhode Island Atomic Energy Commission	NRC	2	0.02	MTHM	1.63E+14
South Carolina	Savannah River Site	SRS Storage	Wet Storage	DOE	DOE	1,2	29.42	MTHM	1.78E+18
			Dry Storage	DOE	DOE	2	0.01	MTHM	2.96E+15
Tennessee	Oak Ridge Reservation	Multiple ORR Facilities	Wet Storage	DOE	DOE	2	0.47	MTHM	2.86E+17
Washington	Hanford Site	Multiple Hanford Facilities	Dry Storage	DOE	DOE	1,2	2127.88	MTHM	1.79E+18
			Wet Storage	DOE	DOE	1	1.50	MTHM	9.19E+14

<sup>1</sup> Data Source: DOE National Spent Nuclear Program database (SFD Version 6.2.3, 3/24/2011) except where noted. Navy Spent Fuel is excluded from this report.

<sup>2</sup> SF Sources: 1-Defense applications; 2-Commercial NPPs and Test/Research Reactors.

<sup>3</sup> In addition to this facility, NRC licensed a second DOE ISFSI at Idaho, which DOE subsequently decided not to construct.

<sup>4</sup> Source Term estimates calculated for 2017 based on methodology described in report DOE/SNF/REP-078 Rev. 2 "Source Term Estimates for DOE SNF".

Spent Fuel Management Facilities University Research Facilities<sup>5</sup>

State	Installation	Facility	Function	Licensee	Regulator	Inventory	Units	Estimated Activity (Bq) for 2017 <sup>7</sup>
California	University of California (Irvine)	Research Reactor	Wet Storage	University of California	NRC	21.42	kgU	9.85E+13
	University of California (Davis) <sup>6</sup>	Research Reactor	Wet Storage	University of California	NRC	72.31	kgU	9.92E+14
Florida	University of Florida (Gainesville)	Research Reactor	Wet Storage	University of Florida	NRC	23.81	kgU	1.38E+14
Indiana	Purdue University (West Lafayette)	Research Reactor	Wet Storage	Purdue University	NRC	17.53	kgU	2.12E+14
Kansas	Kansas State University (Manhattan)	Research Reactor	Wet Storage	Kansas State University	NRC	21.08	kgU	5.23E+14
Maryland	University of Maryland (College Park)	Research Reactor	Wet Storage	University of Maryland	NRC	16.35	kgU	4.95E+14
Massachusetts	University of Lowell (Lowell)	Research Reactor	Wet Storage	University of Lowell	NRC	10.13	kgU	1.23E+14
	Massachusetts Institute of Technology (Cambridge)	Research Reactor	Wet Storage	Massachusetts Institute of Technology	NRC	19.85	kgU	5.77E+15
	Worcester Polytechnic Institute (Worcester)	Research Reactor	Wet Storage	Worcester Polytechnic Institute	NRC	22.75	kgU	1.40E+13
Missouri	University of Missouri (Columbia)	Research Reactor	Wet Storage	University of Missouri	NRC	35.44	kgU	3.18E+15
	University of Missouri (Rolla)	Research Reactor	Wet Storage	University of Missouri	NRC	26.46	kgU	3.29E+15
North Carolina	North Carolina State University (Raleigh)	Research Reactor	Wet Storage	North Carolina State University	NRC	315.40	kgU	6.22E+14
Ohio	Ohio State University (Columbus)	Research Reactor	Wet Storage	Ohio State University	NRC	26.15	kgU	3.16E+14
Oregon	Oregon State University (Corvallis)	Research Reactor	Wet Storage	Oregon State University	NRC	77.06	kgU	8.78E+14
	Reed College (Portland)	Research Reactor	Wet Storage	Reed College	NRC	30.86	kgU	4.34E+14
Pennsylvania	Pennsylvania State University (University Park)	Research Reactor	Wet Storage	Pennsylvania State University	NRC	37.57	kgU	1.38E+15
Texas	Texas A&M University (College Station)	Research Reactor	Wet Storage	Texas A&M University	NRC	70.76	kgU	1.30E+15
	University of Texas (Austin)	Research Reactor	Wet Storage	University of Texas	NRC	35.17	kgU	2.73E+14
Utah	University of Utah (Salt Lake City)	Research Reactor	Wet Storage	University of Utah	NRC	26.82	kgU	1.22E+15
Washington	Washington State University (Pullman)	Research Reactor	Wet Storage	Washington State University	NRC	67.48	kgU	3.06E+15
Wisconsin	University of Wisconsin (Madison)	Research Reactor	Wet Storage	University of Wisconsin	NRC	68.06	kgU	4.34E+14

<sup>5</sup> Data Source: DOE National Spent Nuclear Program database (SFD Version 6.2.3, 3/24/2011) except where noted.<sup>6</sup> Formerly McClellan AFB (Sacramento).<sup>7</sup> Source Term estimates calculated for 2017 based on methodology described in report DOE/SNF/REP-078 Rev. 2 "Source Term Estimates for DOE SNF".

Spent Fuel Management Facilities Other Research and Nuclear Cycle Facilities<sup>8</sup>

State	Installation	Facility	Function	Licensee	Regulator	Inventory	Units	Estimated Activity (Bq) for 2017 <sup>9</sup>
California	Aerotest Research (San Ramon)	Research/Test Reactor	Wet Storage	Aerotest Research	NRC	17.43	kgU	3.54E+15
	General Electric (Pleasanton)	Research/Test Reactor	Wet Storage	General Electric	NRC	3.86	kgU	5.11E+12
Michigan	Dow Chemical Co. (Midland)	Research/Test Reactor	Wet Storage	Dow Chemical Co.	NRC	14.81	kgU	2.23E+14
Virginia	BWX Technology, Inc.	Fuel Cycle Facility	Dry Storage	BWX Technology	NRC	43.48	kgU	2.15E+15

<sup>8</sup> Data Source: DOE National Spent Nuclear Program database (SFD Version 6.2.3, 3/24/2011) except where noted.

<sup>9</sup> Source Term estimates calculated for 2017 based on methodology described in report DOE/SNF/REP-078 Rev. 2 "Source Term Estimates for DOE SNF".

Site	MTHM	Volume in Cubic Meters	Canisters	Commercial Assembly Equivalent <sup>2</sup>	Curies <sup>3</sup>
Hanford	2130.4	228.4	560	1248	3.83E+07
Idaho <sup>1</sup>	322.9	539.3	1704	2947	5.21E+07
Savannah River	29.4	64	614	350	2.70E+07
Other	23.8	20.3	913	111	3.20E+07
<b>TOTAL</b>	2506.5	852	3791	4656	1.49E+08

Site	MTHM (%)	Volume in Cubic Meters (%)	Canisters (%)	Commercial Assembly Equivalent <sup>2</sup> (%)	Curies <sup>3</sup> (%)
Hanford	85%	27%	15%	27%	26%
Idaho <sup>1</sup>	13%	63%	45%	63%	35%
Savannah River	1%	8%	16%	8%	18%
Other	1%	2%	24%	2%	21%
<b>TOTAL</b>	2506.5	852	3791	4656	1.49E+08

<sup>1</sup> Includes FSV, excludes Navy

<sup>2</sup> Volume equivalent to typical (17x17) LWR fuel assembly (4m x 0.214m x 0.214m = 0.183m<sup>3</sup>)

<sup>3</sup> 2030 Nominal Estimates

Source: SFD v6.2.3 (3-24-2011).