

Nuclear Reactors Built, Being Built, or Planned: 2003

In the United States



U.S. DEPARTMENT OF ENERGY
Office of Nuclear Energy, Science and Technology
Washington, D.C. 20585-0117

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Preface

Nuclear Reactors Built, Being Built, or Planned contains unclassified information about facilities that have been built, are being built, or are planned in the United States as of January 2003. The U.S. Department of Energy, gathers this information annually from Washington headquarters and field offices of DOE; from the U.S. Nuclear Regulatory Commission (NRC); from the American Nuclear Society (ANS); from the International Atomic Energy Agency (IAEA), and other information sources.

The data are presented in five parts, as follows:

- Part I, containing tables for civilian reactors,
- Part II, containing tables for space power reactors,
- Part III, containing tables for production reactors,
- Part IV, containing tables for seagoing and military reactors, and
- Part V, containing tables for critical assemblies.

Within each part, the reactors are subdivided into sections as described below. The reactors in each section are further classified according to whether they are currently operating, in the process of being built, planned for future construction; or permanently shut down, and in the process of being dismantled. In addition to these five main parts, this report contains a list of abbreviations and acronyms, a commercial reactor locator map, and appendices, which include a table of power reactor characteristics, summarized by state, and a table of miscellaneous statistical data for power reactors.

Part I, Civilian Reactors, is subdivided into the following sections:

Power Reactors, which includes facilities designed and constructed for operation on a utility system for the production of electrical power or other power needs;

Experimental Power Reactors, which includes facilities designed, engineered, constructed, and operated to test the technical feasibility of a concept or to provide the technical basis for a similar type nuclear power plant in a larger size. These facilities have significant design flexibility, which permits modifications to prove various aspects of reactor technology including fuel, components, and configurations. Power-conversion equipment may or may not be included as part of the facility;

University Reactors, which includes reactors located at a university and usually operated for the primary purpose of training in the operation and utilization of reactors and for instruction in reactor theory and performance;

Research and Test Reactors, which includes reactors used primarily as a tool for basic or applied research. It includes facilities for testing the life or performance of reactor components and reactor materials, or that may involve a nuclear safety research or engineering-scale test program for the purpose of developing basic design information or demonstrating safety characteristics.

Part II, Space Power Reactors, is subdivided into the following sections:

Space Nuclear Auxiliary Power, which includes facilities designed for the purpose of developing basic design information or demonstrating safety characteristics of terrestrial and aerospace nuclear reactor systems to generate power for instrumentation and experimental equipment on board a spacecraft.

Space Propulsion, which includes facilities designed for the purpose of developing basic design information or demonstrating safety characteristics of aerospace nuclear reactor systems to generate power for transporting and orienting spacecraft.

Part III, Production Reactors, is subdivided into the following sections:

Materials Production, which includes facilities designed and constructed for the production of nuclear materials

Process Development, which includes facilities designed and constructed to develop and refine the methods for producing special nuclear materials.

Part IV, Seagoing and Military Reactors, is subdivided into the following sections:

Propulsion, which, in other than one case, includes facilities owned and operated by the U.S. Navy to produce power for propulsion, as on a nuclear submarine or aircraft carrier

Remote Installations, which includes facilities owned and operated by the military to produce power for equipment at some remote location

Experimental Reactors and Prototypes, which includes facilities owned and operated by the military to test the technical feasibility of a concept or to provide the technical basis for a similar type nuclear power plant in a larger size.

Research and Test Reactors, which includes facilities owned and operated by the military for basic or applied research, for testing the life or performance of reactor components and reactor materials, for developing basic design information or for demonstrating safety characteristics.

Part V, Critical Assemblies, refers to an assembly of fuel and moderator that requires an external source of neutrons to initiate and maintain fission. A critical assembly is used for experimental measurements. This part is subdivided into the following sections:

Civilian, which refers to facilities designed, engineered, constructed, and operated by either a private company or the US Government.

Military, which refers to facilities designed, engineered, constructed, and operated by the US Military.

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The participation and assistance of many individuals, agencies, and companies in providing data and updating the entries in this revision are gratefully acknowledged. Comments and suggestions about or corrections to this publication are welcome. To ensure that the wide range of information included in this publication will continue to be timely and accurate, please direct any information related to updating this report to the Office of Nuclear Energy, Science and Technology, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0117 or via the webmaster at our web site: <http://www.nuclear.gov>.

Abbreviations and Acronyms

This list contains references to current and historical corporate and government structure.

AC	Allis-Chalmers Mfg. Co.
ACF	ACF Industries, Inc. (reactor activities abandoned by AC)
AEC	Atomic Energy Commission, a predecessor of the Department of Energy
AG	Aerojet-General Corporation
AGN	Aerojet-General Nucleonics, formerly a subsidiary and then a division of Aerojet-General Corporation
AI	Atomics International, a division of Rockwell International
Alco	Alco Products, Inc. (reactor activities absorbed by AC)
AMF	AMF Atomics, Inc., a division of American Machine & Foundry Co.
ANL	Argonne National Laboratory
ANPD	Aircraft Nuclear Propulsion Department, General Electric Company (name changed to Flight Propulsion Laboratory Department)
AS Inc.	American Standard Inc.
AU	Associated Universities, Inc. (Brookhaven National Laboratory)
BAC	Bendix Aviation Corp.
Bethlehem	Shipbuilding Division, Bethlehem Steel Co. (now Quincy Division, General Dynamics Corp.)
Bettis	Bettis Atomic Power Laboratory
Blaw-Knox	Blaw-Knox Co.
B&R	Burns & Roe, Inc.
B&W	Babcock & Wilcox Co.
BNL	Brookhaven National Laboratory
BWR	Boiling Water Reactor
CL	Clinton Laboratory of the Manhattan Engineer District
CE	Combustion Engineering, Inc.
Convair	Convair Division, General Dynamics Corp.
Cook	Nucledyne Co., a division of Cook Electric Company
CW	Curtiss-Wright Corporation
Daystrom	Daystrom, Inc.
DA	Decommissioning Amendment
DECON	A method of decommissioning in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations.
DNA	Defense Nuclear Agency, Department of Defense
DOD	Department of Defense
DOE	Department of Energy
Du Pont	E.I. Du Pont de Nemours & Company, Inc.
EG&G ID	EG&G Idaho, Inc. (a division of EG&G, Inc.)
Electric Boat	Electric Boat Division, General Dynamics Corp.
ENTOMB	A method of decommissioning in which radioactive contaminants are encased in a structurally long-lived material, such as concrete.
Fluor	The Fluor Corporation, Ltd.
Fram	Framatome
FW	Foster Wheeler Corp.
GA	General Atomics Technologies
GD (Quincy)	Quincy Division, General Dynamics Corp.
GE	General Electric Company,
GNEC	General Nuclear Engineering Corp. (became a division of Combustion Engineering Inc., in 1964)
IC	Internuclear Co.

INC	Idaho Nuclear Corporation
INEEL	Idaho National Engineering and Environmental Laboratory
Ingalls	Ingalls Shipbuilding Corp.
Kaman	Kaman Nuclear, a division of Kaman Aircraft Corp.
KAPL	Knolls Atomic Power Laboratory
KE	Kaiser Engineers, a division of Henry J. Kaiser Co.
LANL	Los Alamos National Laboratory
LMITCO	Lockheed Martin Idaho Technologies Company
LLC	Limited Liability Corporation
LLNL	Lawrence Livermore National Laboratory
Lockheed	Lockheed Aircraft Corp.
LOPRA	Low power reactor assembly
Mare Island	Mare Island Naval Shipyard
Martin	Martin Marietta Corp.
Maxon	Maxon Construction Co.
Met. Lab	Metallurgical Laboratory of the Manhattan Engineer District
NASA	National Aeronautics and Space Administration
NIST	National Institute for Standards and Technology
Newport News	Newport News Shipbuilding & Dry Dock Co.
NRC	Nuclear Regulatory Commission
NRDS	Nuclear Rocket Development Station (prior name for NTS)
NRL	Naval Research Laboratory
NTS	Nevada Test Site
NYSC	New York Shipbuilding Corp.
ORNL	Oak Ridge National Laboratory
PNNL	Pacific Northwest National Laboratory
Portsmouth	Portsmouth Naval Shipyard
POL	Possession Only License (Amendment)
PPC	Phillips Petroleum Co.
PRDC	Power Reactor Development Company
PWR	Pressurized Water Reactor
RI	Rockwell International
SAFSTOR	A method of decommissioning in which the nuclear facility is placed and maintained in safe storage pending subsequent decontamination.
Sandia	Sandia National Laboratories
SPR	Sandia Pulsed Reactor
SRL	Savannah River Laboratory (prior name for SRS)
SRS	Savannah River Site
UNC	United Nuclear Corporation, Development Division
Vitro	Vitro Corporation of America
West.	Westinghouse Electric Corporation
WHC	Westinghouse Hanford Co.

Introduction to Tables

The reactor tables vary to some degree, but typically have the following column headings:

- *Name, Licensee, Regulatory Agency, and Docket number.* The name of the reactor facility as it appears on the reactor license, as well as the name of the licensee (owner), what agency licensed the reactor (DOE, NRC, the military, or other) and the docket number given to that reactor, if it was licensed by the NRC.
- *Location.* The city and state where located. For a portable facility or one that has been relocated, the most recent location is given.
- *Principal nuclear contractor, operator, designer, shipbuilder.* The abbreviations used in this column are spelled out in the list of abbreviations and acronyms, which appears just before this introduction.
- *Type.* Entries in this column are based on reactor design, coolant, moderator, and neutron energy.
- *Power.* Power MD capacity is the maximum dependable capacity (net electrical output to grid) for plants having an operating history. Otherwise, it is the design capacity. Licensed power (thermal) and authorized power are given where appropriate.
- *Designation.* The common name, abbreviation or acronym used for the facility. For the naval reactors, it is the hull number.
- *Design Electrical Rating.* The design electrical rating (net electrical power) is obtained from the monthly operating reports submitted to the NRC by commercial electric power plants.
- *Date columns.* The start-up date and shutdown date are given as appropriate.
- *Comments.* This column contains relevant information such as special operating history, status of decommissioning, or significant licensing changes.

The status of a reactor is used to subdivide the tables further, as defined below:

Reactors are listed as ***operable*** under the following circumstances:

1. Reactors regulated by the NRC
 - when an operating license is issued, or
 - when a reactor is only temporarily shut down because of technical reasons, modifications, or refueling.
2. Federal Government reactors
 - when criticality is achieved, or
 - when a reactor is only temporarily shutdown for safety improvements.

Reactors are listed as ***being built*** under the following circumstances:

1. Reactors regulated by NRC
 - when a construction permit is issued, or
 - when a limited work authorization is issued.
2. Federal Government reactors
 - when ground is broken,
 - when components are ordered, or
 - when a construction contract is awarded.

Reactors are listed as ***planned*** under the following circumstances:

1. Reactors regulated by NRC

- when a public announcement that includes the principal vendor supplier is made by the sponsoring organization, or
 - when an application for a construction permit is received by NRC.
2. Federal Government reactors
- when a public announcement is made by the agency involved, or
 - when the project is otherwise appropriately authorized.

Reactors are considered to be ***shutdown or dismantled*** under the following circumstances:

1. Reactors regulated by NRC

- when the licensee has applied to the Commission for authority to surrender a license voluntarily and to dismantle the facility and dispose of its component parts. A reactor shut down because of technical problems, modifications, or refueling, continues to be listed as operable.

2. Federal Government Reactors

- when the facility has ceased operation and the agency has declared officially that the agency does not intend to operate the reactor further. However, within this category, a few reactors are identified as being in *standby* mode, the condition in which documentary authorization exists to maintain the reactor for possible future operation.

PART I CIVILIAN REACTORS

1. Power Reactors

Operable

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
Alvin W. Vogtle Nuclear Plant, Unit 1 (Southern Nuclear Operating Co.) [50-424]	Waynesboro, GA	West.	PWR	1,149	3,565	87 03		
Alvin W. Vogtle Nuclear Plant, Unit 2 (Southern Nuclear Operating Co.) [50-425]	Waynesboro, GA	West.	PWR	1,162	3,565	89 03		
Arkansas Nuclear One, Unit 1 (Entergy Operations Inc.) [50-313]	Russellville, AR	B&W	PWR	836	2,568	74 08		License Renewal Application approved June 2001.
Arkansas Nuclear One, Unit 2 (Entergy Operations Inc.) [50-368]	Russellville, AR	CE	PWR	858	2,815	78 12		License Renewal Application planned for September 2003.
Beaver Valley Power Station, Unit 1 (FirstEnergy Nuclear Operating Co.) [50-334]	Shippingport, PA	West.	PWR	822	2,689	76 05		License Renewal Application planned for September 2004
Beaver Valley Power Station, Unit 2 (FirstEnergy Nuclear Operating Co.) [50-412]	Shippingport, PA	West.	PWR	822	2,689	87 08		License Renewal Application planned for September 2004.
Braidwood Station, Unit 1 (Exelon Generation Co., LLC) [50-456]	Braidwood, IL	West.	PWR	1,168	3,586	87 05		
Braidwood Station, Unit 2 (Exelon Generation Co., LLC) [50-457]	Braidwood, IL	West.	PWR	1,122	3,586	88 03		
Browns Ferry Nuclear Power Station, Unit 1 (Tennessee Valley Authority) [50-259]	Decatur, AL	GE	BWR	0	3,293	73 08		Restart of this unit targeted for 2007. License Renewal Application planned December 2003.
Browns Ferry Nuclear Power Station, Unit 2 (Tennessee Valley Authority) [50-260]	Decatur, AL	GE	BWR	1,118	3,458	74 07		License Renewal Application planned for December 2003.
Browns Ferry Nuclear Power Station, Unit 3 (Tennessee Valley Authority) [50-296]	Decatur, AL	GE	BWR	1,118	3,458	76 08		License Renewal Application planned for December 2003.
Brunswick Steam Electric Plant, Unit 1 (Progress Energy, Inc) [50-325]	Southport, NC	GE	BWR	820	2,558	76 10		License Renewal Application planned for December 2004.
Brunswick Steam Electric Plant, Unit 2 (Progress Energy, Inc) [50-324]	Southport, NC	GE	BWR	811	2,558	75 03		License Renewal Application planned for December 2004.

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
Byron Station, Unit 1 (Exelon Generation Co., LLC) [50-454]	Byron, IL	West.	PWR	1,163	3,586	85 02		
Byron Station, Unit 2 (Exelon Generation Co., LLC) [50-455]	Byron, IL	West.	PWR	1,131	3,586	87 01		
Callaway Plant, Unit 1 (AmerenUE Corporation) [50-483]	Fulton, MO	West.	PWR	1,143	3,565	84 10		
Calvert Cliffs Nuclear Power Plant, Unit 1 (Constellation Energy Group, Inc) [50-317]	Lusby, MD	CE	PWR	825	2,700	74 10		License Renewal Application approved March 2000.
Calvert Cliffs Nuclear Power Plant, Unit 2 (Constellation Energy Group, Inc) [50-318]	Lusby, MD	CE	PWR	835	2,700	76 11		License Renewal Application approved March 2000.
Catawba Nuclear Station, Unit 1 (Duke Energy Corporation, LLC) [50-413]	Lake Wylie, SC	West.	PWR	1,129	3,411	85 01		License Renewal Application submitted June 2001.
Catawba Nuclear Station, Unit 2 (Duke Energy Corporation, LLC) [50-414]	Lake Wylie, SC	West.	PWR	1,129	3,411	86 05		License Renewal Application submitted June 2001.
Clinton Power Station, Unit 1 (AmerGen Energy Company) [50-461]	Clinton, IL	GE	BWR	930	2,894	87 04		
Columbia Generating Station (Energy Northwest) [50-397]	Richland, WA	GE	BWR	1,086	3,323	84 01		Formerly Washington Nuclear Project, Unit 2.
Comanche Peak Steam Electric Station, Unit 1 (TXU Generation Company LP) [50-445]	Glen Rose, TX	West.	PWR	1,150	3,458	90 04		
Comanche Peak Steam Electric Station, Unit 2 (TXU Generation Company LP) [50-446]	Glen Rose, TX	West.	PWR	1,150	3,458	93 03		
Cooper Nuclear Station (Nebraska Public Power District) [50-298]	Brownville, NE	GE	BWR	758	2,381	74 02		
Crystal River Nuclear Plant, Unit 3 (Progress Energy, Inc) [50-302]	Red Level, FL	B&W	PWR	843	2,544	77 01		
Davis-Besse Nuclear Power Station, Unit 1 (FirstEnergy Nuclear Operating Company) [50-346]	Oak Harbor, OH	B&W	PWR	873	2,772	77 08		License Renewal Application planned for December 2004.
Diablo Canyon Nuclear Power Plant, Unit 1 (Pacific Gas & Electric Co.) [50-275]	Diablo Canyon, CA	West.	PWR	1,073	3,338	84 04		
Diablo Canyon Nuclear Power Plant, Unit 2 (Pacific Gas & Electric Co.) [50-323]	Diablo Canyon, CA	West.	PWR	1,087	3,411	85 08		
Donald C. Cook Nuclear Power Plant, Unit 1 (Indiana/Michigan Power Co.) [50-315]	Bridgman, MI	West.	PWR	1,020	3,250	75 01		License Renewal Application planned for November 2003.
Donald C. Cook Nuclear Power Plant, Unit 2 (Indiana/Michigan Power Co.) [50-316]	Bridgman, MI	West.	PWR	1,090	3,411	78 03		License Renewal Application planned for November 2003.

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)	Comment
Dresden Nuclear Power Station, Unit 2 (Exelon Generation Co., LLC) [50-237]	Morris, IL	GE	BWR	850	2,957	70 01	License Renewal Application submitted January 2003.
Dresden Nuclear Power Station, Unit 3 (Exelon Generation Co., LLC) [50-249]	Morris, IL	GE	BWR	773	2,527	71 01	License Renewal Application submitted January 2003.
Duane Arnold Energy Center, Unit 1 (Nuclear Management Company, LLC) [50-331]	Palo, IA	GE	BWR	520	1,658	74 03	
Edwin I. Hatch Nuclear Plant, Unit 1 (Southern Nuclear Operating Co.) [50-321]	Baxley, GA	GE	BWR	863	2,763	74 09	License Renewal Application approved January 2002.
Edwin I. Hatch Nuclear Plant, Unit 2 (Southern Nuclear Operating Co.) [50-366]	Baxley, GA	GE	BWR	878	2,763	78 07	License Renewal Application approved January 2002.
Enrico Fermi Atomic Power Plant, Unit 2 (Detroit Edison Co.) [50-341]	Newport, MI	GE	BWR	1,129	3,430	85 06	
Fort Calhoun Station, Unit 1 (Omaha Public Power District) [50-285]	Fort Calhoun, NE	CE	PWR	476	1,500	73 08	License Renewal Application submitted January 2002.
Grand Gulf Nuclear Station, Unit 1 (Entergy Operations Inc.) [50-416]	Port Gibson, MS	GE	BWR	1,210	3,833	82 08	
H.B. Robinson Plant, Unit 2 (Progress Energy, Inc) [50-261]	Hartsville, SC	West.	PWR	683	2,300	70 09	License Renewal Application submitted June 2002.
Hope Creek Nuclear Generating Station, Unit 1 (PSEG Nuclear, LLC) [50-354]	Salem, NJ	GE	BWR	1,045	3,293	86 06	
Indian Point Station, Unit 2 (Entergy Nuclear Operations, Inc.) [50-247]	Buchanan, NY	West.	PWR	951	3,071	73 05	
Indian Point Station, Unit 3 (Entergy Nuclear Operations, Inc.) [50-286]	Buchanan, NY	West.	PWR	965	3,025	76 04	
James A. FitzPatrick Nuclear Power Plant (Entergy Nuclear Operations, Inc.) [50-333]	Scriba, NY	GE	BWR	813	2,536	74 11	
Joseph M. Farley Nuclear Plant, Unit 1 (Southern Nuclear Operating Co.) [50-348]	Dothan, AL	West.	PWR	847	2,775	77 08	License Renewal Application planned for September 2003.
Joseph M. Farley Nuclear Plant, Unit 2 (Southern Nuclear Operating Co.) [50-364]	Dothan, AL	West.	PWR	852	2,775	81 05	License Renewal Application planned for September 2003.
Kewaunee Nuclear Power Plant (Nuclear Management Company, LLC) [50-305]	Carlton, WI	West.	PWR	498	1,650	74 03	
La Salle County Station, Unit 1 (Exelon Generation Co., LLC) [50-373]	Seneca, IL	GE	BWR	1,111	3,489	82 06	
La Salle County Station, Unit 2 (Exelon Generation Co., LLC) [50-374]	Seneca, IL	GE	BWR	1,111	3,489	84 03	

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
Limerick Generating Station, Unit 1 (Exelon Generation Co., LLC) [50-352]	Pottstown, PA	GE	BWR	1,134	3,458	84 12		
Limerick Generating Station, Unit 2 (Exelon Generation Co., LLC) [50-353]	Pottstown, PA	GE	BWR	1,134	3,458	89 08		
Millstone Nuclear Power Station, Unit 2 (Dominion Nuclear Energy) [50-336]	Waterford, CT	CE	PWR	871	2,700	75 10		License Renewal Application planned for January 2004.
Millstone Nuclear Power Station, Unit 3 (Dominion Nuclear Energy) [50-423]	Waterford, CT	West.	PWR	1,137	3,411	86 01		License Renewal Application planned for January 2004.
Monticello Nuclear Generating Plant (Nuclear Management Company, LLC) [50-263]	Monticello, MN	GE	BWR	615	1,775	70 12		
Nine Mile Point Nuclear Station, Unit 1 (Nine Mile Point Nuclear Station, LLC) [50-220]	Scriba, NY	GE	BWR	565	1,850	69 09		License Renewal Application planned for October 2003.
Nine Mile Point Nuclear Station, Unit 2 (Nine Mile Point Nuclear Station, LLC) [50-410]	Scriba, NY	GE	BWR	1,142	3,467	87 05		License Renewal Application planned for October 2003.
North Anna Power Station, Unit 1 (Virginia Electric & Power Co.) [50-338]	Mineral, VA	West.	PWR	893	2,893	78 04		License Renewal Application approved March 2003.
North Anna Power Station, Unit 2 (Virginia Electric & Power Co.) [50-339]	Mineral, VA	West.	PWR	897	2,893	80 06		License Renewal Application approved March 2003.
Oconee Nuclear Station, Unit 1 (Duke Energy Corporation, LLC) [50-269]	Seneca, SC	B&W	PWR	846	2,568	73 04		License Renewal Application approved May 2000.
Oconee Nuclear Station, Unit 2 (Duke Energy Corporation, LLC) [50-270]	Seneca, SC	B&W	PWR	846	2,568	73 11		License Renewal Application approved May 2000.
Oconee Nuclear Station, Unit 3 (Duke Energy Corporation, LLC) [50-287]	Seneca, SC	B&W	PWR	846	2,568	74 09		License Renewal Application approved May 2000.
Oyster Creek Nuclear Power Plant, Unit 1 (Exelon Generation Co., LLC) [50-219]	Toms River, NJ	GE	BWR	619	1,930	69 05		
Palisades Nuclear Plant, Unit 1 (Nuclear Management Company, LLC) [50-255]	South Haven, MI	CE	PWR	760	2,530	71 05		
Palo Verde Nuclear Generating Station, Unit 1 (Arizona Public Service Co.) [50-528]	Wintersburg, AZ	CE	PWR	1,243	3,800	85 05		
Palo Verde Nuclear Generating Station, Unit 2 (Arizona Public Service Co.) [50-529]	Wintersburg, AZ	CE	PWR	1,243	3,876	86 04		
Palo Verde Nuclear Generating Station, Unit 3 (Arizona Public Service Co.) [50-530]	Wintersburg, AZ	CE	PWR	1,247	3,876	87 10		
Peach Bottom Atomic Power Station, Unit 2 (Exelon Generation Co., LLC) [50-277]	Lancaster, PA	GE	BWR	1,093	3,458	73 09		License Renewal Application submitted July 2001.

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
Peach Bottom Atomic Power Station, Unit 3 (Exelon Generation Co., LLC) [50-278]	Lancaster, PA	GE	BWR	1,093	3,458	74 08		License Renewal Application submitted July 2001.
Perry Nuclear Power Plant, Unit 1 (FirstEnergy Nuclear Operating Company) [50-440]	Perry, OH	GE	BWR	1,241	3,758	86 06		
Pilgrim Nuclear Power Station, Unit 1 (Entergy Nuclear Operations, Inc.) [50-293]	Plymouth, MA	GE	BWR	665	1,998	72 06		License Renewal Application planned for December 2004.
Point Beach Nuclear Plant, Unit 1 (Nuclear Management Company, LLC) [50-266]	Two Creeks, WI	West.	PWR	515	1,519	70 11		
Point Beach Nuclear Plant, Unit 2 (Nuclear Management Company, LLC) [50-301]	Two Creeks, WI	West.	PWR	507	1,519	72 05		
Prairie Island Nuclear Generating Plant, Unit 1 (Nuclear Management Company, LLC) [50-282]	Red Wing, MN	West.	PWR	525	1,650	73 12		
Prairie Island Nuclear Generating Plant, Unit 2 (Nuclear Management Company, LLC) [50-306]	Red Wing, MN	West.	PWR	524	1,650	74 12		
Quad-Cities Station, Unit 1 (Exelon Generation Co., LLC) [50-254]	Cordova, IL	GE	BWR	762	2,957	71 10		License Renewal Application submitted January 2003.
Quad-Cities Station, Unit 2 (Exelon Generation Co., LLC) [50-265]	Cordova, IL	GE	BWR	762	2,957	72 04		License Renewal Application submitted January 2003.
River Bend Station, Unit 1 (Entergy Operations Inc.) [50-458]	St. Francisville, LA	GE	BWR	966	3,039	85 10		
Robert Emmett Ginna Nuclear Power Plant, Unit 1 (Rochester Gas & Electric Corp.) [50-244]	Ontario, NY	West.	PWR	480	1,520	69 11		License Renewal Application submitted August 2002.
Salem Nuclear Generating Station, Unit 1 (PSEG Nuclear, LLC) [50-272]	Salem, NJ	West.	PWR	1,121	3,459	76 12		
Salem Nuclear Generating Station, Unit 2 (PSEG Nuclear, LLC) [50-311]	Salem, NJ	West.	PWR	1,121	3,459	80 08		
San Onofre Nuclear Generating Station, Unit 2 (Southern California Edison Co.) [50-361]	San Clemente, CA	CE	PWR	1,070	3,438	82 07		
San Onofre Nuclear Generating Station, Unit 3 (Southern California Edison Co.) [50-362]	San Clemente, CA	CE	PWR	1,080	3,438	83 08		
Seabrook Nuclear Station, Unit 1 (North Atlantic Energy Service Corp.) [50-443]	Seabrook, NH	West.	PWR	1,161	3,411	89 06		

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
Sequoyah Nuclear Plant, Unit 1 (Tennessee Valley Authority) [50-327]	Daisy, TN	West.	PWR	1,122	3,411	80 07		
Sequoyah Nuclear Plant, Unit 2 (Tennessee Valley Authority) [50-328]	Daisy, TN	West.	PWR	1,117	3,411	81 11		
Shearon Harris Nuclear Power Plant, Unit 1 (Progress Energy, Inc) [50-400]	Bonsal, NC	West.	PWR	860	2,775	87 01		
South Texas Project, Unit 1 (STP Nuclear Operating Co.) [50-498]	Bay City, TX	West.	PWR	1,250	3,800	88 03		
South Texas Project, Unit 2 (STP Nuclear Operating Co.) [50-499]	Bay City, TX	West.	PWR	1,250	3,800	89 03		
St. Lucie Plant, Unit 1 (Florida Power & Light Co.) [50-335]	Fort Pierce, FL	CE	PWR	839	2,700	76 04		License Renewal Application submitted November 2001.
St. Lucie Plant, Unit 2 (Florida Power & Light Co.) [50-389]	Fort Pierce, FL	CE	PWR	839	2,700	83 06		License Renewal Application submitted November 2001.
Surry Power Station, Unit 1 (Virginia Electric & Power Co.) [50-280]	Gravel Neck, VA	West.	PWR	801	2,546	72 07		License Renewal Application approved March 2003.
Surry Power Station, Unit 2 (Virginia Electric & Power Co.) [50-281]	Gravel Neck, VA	West.	PWR	801	2,546	73 03		License Renewal Application approved March 2003.
Susquehanna Steam Electric Station, Unit 1 (PPL Susquehanna, LLC) [50-387]	Berwick, PA	GE	BWR	1,104	3,489	82 09		License Renewal Application planned for January-March 2005.
Susquehanna Steam Electric Station, Unit 2 (PPL Susquehanna, LLC) [50-388]	Berwick, PA	GE	BWR	1,108	3,489	84 05		License Renewal Application planned for January-March 2005.
Three Mile Island Nuclear Station, Unit 1 (Exelon Generation Co., LLC) [50-289]	Middletown, PA	B&W	PWR	786	2,568	74 06		
Turkey Point Plant, Unit 3 (Florida Power & Light Co.) [50-250]	Florida City, FL	West.	PWR	693	2,300	72 10		License Renewal Application approved June 2002.
Turkey Point Plant, Unit 4 (Florida Power & Light Co.) [50-251]	Florida City, FL	West.	PWR	693	2,300	73 06		License Renewal Application approved June 2002.
Vermont Yankee Nuclear Power Station (Entergy Nuclear Operations, Inc.) [50-271]	Vernon, VT	GE	BWR	506	1,593	72 03		
Virgil C. Summer Nuclear Station, Unit 1 (South Carolina Electric & Gas Co.) [50-395]	Jenkinsville, SC	West.	PWR	952	2,900	82 10		License Renewal Application submitted August 2002.
Waterford Generating Station, Unit 3 (Entergy Operations Inc.) [50-382]	Taft, LA	CE	PWR	1,075	3,390	85 03		
Watts Bar Nuclear Plant, Unit 1 (Tennessee Valley Authority) [50-390]	Spring City, TN	West.	PWR	1,118	3,411	96 02		
William B. McGuire Nuclear Station, Unit 1 (Duke Energy Corporation, LLC) [50-369]	Cowans Ford Dam, NC	West.	PWR	1,129	3,411	81 08		License Renewal Application submitted June 2001.

Name (Licensee) [Docket number]	Location	Principal Nuclear Contractor	Type	Power Max. Dependable Capacity net MW(e)*	Power Authorized MW(t)*	Start-up (yr mo)		Comment
William B. McGuire Nuclear Station, Unit 2 (Duke Energy Corporation, LLC) [50-370]	Cowans Ford Dam, NC	West.	PWR	1,129	3,411	83 05		License Renewal Application submitted June 2001.
Wolf Creek Generating Station (Wolf Creek Nuclear Operating Corp.) [50-482]	Burlington, KS	West.	PWR	1,170	3,565	85 05		

* Data obtained from NUREG-1350, Volume 14 "2002 Edition of the US Nuclear Regulatory Commission Information Digest", Appendix A.

Being Built/Planned

Name (Licensee) [Docket number]	Location	Principal nuclear contractor	Type	Power Max. Dependable Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)		Comment
Bellefonte Nuclear Plant, Unit 1 (Tennessee Valley Authority) [50-438]	Scottsboro, AL	B&W	PWR	1,235	3,760	Indef.		Construction suspended.
Bellefonte Nuclear Plant, Unit 2 (Tennessee Valley Authority) [50-439]	Scottsboro, AL	B&W	PWR	1,235	3,760	Indef.		Construction suspended.
Watts Bar Nuclear Plant, Unit 2 (Tennessee Valley Authority) [50-391]	Spring City, TN	West.	PWR	1,165	3,411	Indef.		Construction suspended.

Shutdown

Name (Licensee) [Docket number]	Location	Principal nuclear contractor	Type	Power Max. Dependable Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Big Rock Point Nuclear Plant (Consumers Power Co.) [50-155]	Big Rock Point, MI	GE	BWR	67	240	62 09	97 08	DECON
Boiling Nuclear Superheater Power Station (AEC and Puerto Rico Water Resources Authority)	Punta Higuera, PR	CE	BWR, integral nuclear superheat	16.5	50	64 00	68 06	ENTOMB
Carolinas–Virginia Tube Reactor (Carolinas–Virginia Nuclear Power Associates, Inc.) [50-144]	Parr, SC	West.	Pressure tube, heavy water	17	65	63 00	67 01	Byproduct license
Dresden Nuclear Power Station, Unit 1 (Commonwealth Edison Co.) [50-10]	Morris, IL	GE	BWR	200	700	59 00	78 10	SAFSTOR
Elk River Reactor (AEC and Rural Cooperative Power Association)	Elk River, MN	AC	BWR	22	58.2	62 00	68 02	DECON completed.
Enrico Fermi Atomic Power Plant, Unit 1 (Power Reactor Development Co.) [50-16]	Lagoona Beach, MI	PRDC	Sodium cooled, fast	60.9	200	63 00	72 09	SAFSTOR
Fort St. Vrain Nuclear Generating Station (Public Service Company of Colorado) [50-267]	Platteville, CO	GA	High temp. gas cooled	330	842	74 01	89 08	DECON completed.
Haddam Neck Plant (Connecticut Yankee Atomic Power Co.) [50-213]	Haddam Neck, CT	West.	PWR	560	1,825	67 07	96 07	DECON

Name (Licensee) [Docket number]	Location	Principal nuclear contractor	Type	Power Max. Dependable Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Hallam Nuclear Power Facility, Sheldon Station (AEC and Consumers Public Power District)	Hallam, NE	AI	Sodium graphite	75	240	62 00	64 09	ENTOMB completed. DOE owned, not regulated by NRC.
Humboldt Bay Power Plant, Unit 3 (Pacific Gas & Electric Co.) [50-133]	Eureka, CA	GE	BWR	65	200	63 00	76 07	SAFSTOR
Indian Point Station, Unit 1 (Consolidated Edison Co. of New York, Inc.) [50-3]	Buchanan, NY	B&W	PWR	265	615	62 00	74 10	SAFSTOR
La Crosse (Genoa) Nuclear Generating Station (Dairyland Power Cooperative) [50-409]	La Crosse, WI	AC	BWR	48	165	67 07	87 04	SAFSTOR
Maine Yankee Atomic Power Plant (Maine Yankee Atomic Power Co.) [50-309]	Wiscasset, ME	CE	PWR	860	2,700	72 10	96 12	DECON
Millstone Nuclear Power Station, Unit 1 (Northeast Utilities) [50-245]	Waterford, CT	GE	BWR	641	2,011	70 10	95 11	SAFSTOR
Pathfinder Atomic Plant (Northern States Power Co.) [50-130]	Sioux Falls, SD	AC	BWR, nuclear superheat	58.5	190	64 00	67 09	DECON completed. Minor radioactivity in turbines under 10 CFR Part 30 license.
Peach Bottom Atomic Power Station, Unit 1 (Philadelphia Electric Co.) [50-171]	Peach Bottom, PA	GA	High temp. gas cooled	40	115	66 00	74 10	SAFSTOR
Piqua Nuclear Power Facility (AEC and City of Piqua)	Piqua, OH	AI	Organic cooled & moderated	11.4	45.5	63 00	66 01	ENTOMB
Rancho Seco Nuclear Generating Station, Unit 1 (Sacramento Municipal Utility District) [50-312]	Clay Station, CA	B&W	PWR	873	2,772	74 09	89 06	DECON.
San Onofre Nuclear Generating Station, Unit 1, (Southern California Edison) [50-206]	San Clemente, CA	West.	PWR	436	1,347	67 06	92 11	DECON.
Saxton Nuclear Experimental Reactor Project (Saxton Nuclear Experimental Corp). [50-146]	Saxton, PA	West.	PWR	3	28	67 03	72 05	DECON Owner: Saxton Nuclear Experimental Corp.
Shippingport Atomic Power Station (DOE and Duquesne Light Co.)	Shippingport, PA	West.	PWR	60	236	57 00	82 10	DECON completed. Site released without restrictions.
Shoreham Nuclear Power Station (Long Island Lighting Co.) [50-322]	Brookhaven, NY	GE	BWR	820	2,436	85 02	89 06	DECON completed. License terminated.
Three Mile Island Nuclear Station, Unit 2 (GPU Nuclear) [50-320]	Middletown, PA	B&W	PWR	906	2,772	78 00	79 03	Post-defueling monitored storage. SAFSTOR
Trojan Nuclear Plant, Unit 1 (Portland General Electric Co.) [50-344]	Rainier, OR	West.	PWR	1,075	3,411	75 12	92 11	DECON

Name (Licensee) [Docket number]	Location	Principal nuclear contractor	Type	Power Max. Dependable Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Vallecitos Boiling Water Reactor (General Electric Company and Pacific Gas & Electric Co.) [50-18]	Pleasanton, CA	GE	BWR	5	50	57 00	63 12	Known as GE VBWR. SAFSTOR Owners: General Electric Company and Pacific Gas & Electric Co.
Yankee Nuclear Power Station (Yankee Atomic Electric Co.) [50-29]	Rowe, MA	West.	PWR	167	600	60 08	91 10	Possession only license 8/92. Final NRC approval of decommissioning 10/96. 10/96. Reactor vessel removed 11/96. Reactor vessel shipped to Barnwell, SC for burial 4/97.
Zion Nuclear Plant, Unit 1 (Commonwealth Edison Co.) [50-295]	Zion, IL	West.	PWR	1,040	3,250	73 06	98 02	SAFSTOR
Zion Nuclear Plant, Unit 2 (Commonwealth Edison Co.) [50-304]	Zion, IL	West.	PWR	1,040	3,250	73 12	98 02	SAFSTOR

2. Experimental Power Reactors

Shutdown

Name (Regulatory agency). [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Boiling Reactor Experiment No. 1 (DOE)	BORAX-1	ANL	BWR		1,400	53 00	54 00	
Boiling Reactor Experiment No. 5 (DOE)	BORAX-5	ANL	BWR, integral nuclear super-heat	2,600	20,000	62 00	64 00	
Boiling Reactor Experiments (DOE)	BORAX -2, -3, -4	ANL	BWR	2,400	15,500	54 00	58 06	This facility was originally built and operated in 1954 as the Boiling Reactor Experiment No. 2 (BORAX-2). With the addition of a turbogenerator, it operated during 1955 as BORAX-3 and on 7/17/55 produced sufficient electricity to light and power Arco, ID—a U.S. first. BORAX-4, a further modification, operated from 12/56 to 6/58, when the experiment was shut down.
ESADA Vallecitos Experimental Superheat Reactor (NRC) [50-183]	EVESR	GE	Light water moderated, super-heat		17,000	63 00	67 02	Owner: Empire States Atomic Development Associates and General Electric Company. POL.
Experimental Beryllium Oxide Reactor (DOE)	EBOR	GA	Gas cooled, BeO moderated		10,000			The EBOR reactor experiment was terminated in December 1966 prior to completion of construction.
Experimental Boiling Water Reactor (DOE)	EBWR	ANL	BWR	4,000	100,000	56 00	67 06	The EBWR achieved 100,000 kW(t) 11/11/62. Operation of EBWR in the Boiling Water Program was closed out 12/62. The reactor was used in support of the Plutonium Recycle Program and attained criticality using plutonium as its principal fuel 9/22/65. In support of that program, it operated at power levels as high as 70,000 kW(t). Operation in that program was completed 6/67. Vessel and support systems dismantled.

Name (Regulatory agency). [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Experimental Breeder Reactor No. 1 (DOE)	EBR-I	ANL	NaK-cooled, fast	150	1,400	51 00	64 00	In a trial run in 1951, EBR-1 generated the world's first electric power from nuclear energy and was first to demonstrate, the feasibility of breeding and the compatibility with breeding economy of sodium-potassium alloy as a liquid-metal coolant. It operated with a plutonium-bearing core (Mark IV) from 11/62 to 12/63. The reactor was decommissioned and dismantled early in 1964.
Experimental Breeder Reactor II (DOE)	EBR-II	ANL	Sodium cooled, fast	20,000	62,500	61 09	94 09	EBR-II achievements include irradiation of tens of thousands of specimens of fuel, structural and absorber materials; generation of several billion kilowatt-hours of electricity; co-generation of steam for ANL-West site heating; in situ demonstration of advanced instrumentation concepts; and full-scale demonstration of a diversion-proof system for fuel reprocessing. Historic LOF and LOHS accident simulations performed in 1986, fully demonstrated the passive safety features inherent in the pool-type design using metal fuel. Defueled; coolant drained.
Experimental Gas Cooled Reactor (DOE)	EGCR	KE-AC	Gas cooled, graphite moderated	21,900	84,300			The EGCR project was terminated 1/66 prior to the completion of construction.
Experimental Organic Cooled Reactor (DOE)	EOCR	Fluor-AI	Organic cooled and moderated		40,000			EOCR construction was terminated 12/62. The facility was mothballed prior to operation.
Heavy Water Components Test Reactor (DOE)	HWCTR	Du Pont	Pressur. heavy water		61,100	62 00	64 00	
Homogeneous Reactor Experiment No. 1 (DOE)	HRE-1	ORNL	Aqueous Homog. solution (UO ₂ SO ₄)	140	1,000	52 00	54 00	

Name (Regulatory agency). [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Homogeneous Reactor Experiment No. 2 (DOE)	HRE-2	ORNL	Aqueous Homog. solution (UO ₂ SO ₄)	300	5,200	57 00	61 00	
Los Alamos Molten Plutonium Reactor Experiment (DOE)	LAMPRE-1	LANL	Fast molten plutonium fueled, sodium cooled		1,000	61 00	63 00	
Los Alamos Power Reactor Experiment No. 1 (DOE)	LAPRE-1	LANL	Aqueous Homog. (Phosphor. acid)		2,000	56 00	57 00	
Los Alamos Power Reactor Experiment No. 2 (DOE)	LAPRE-2	LANL	Aqueous Homog. (Phosphor. acid)		1,000	59 00	59 00	
Molten Salt Reactor Experiment (DOE)	MSRE	ORNL	Single region, graphite moderated		8,000	65 00	69 00	
Organic Moderated Reactor Experiment (DOE)	OMRE	AI	Organic cooled and moderated		12,000	57 00	63 00	OMRE demonstrated the technical and economic feasibility of using liquid terphenyls as coolant and/or moderator.
Plutonium Recycle Test Reactor (DOE)	PRTR	WHC	Pressure tube, heavy water moderated and cooled		70,000	60 00	69 00	
Sodium Reactor Experiment (DOE)	SRE	AI	Sodium graphite	5,700	20,000	57 00	64 02	SRE operated at 20 MW(t) until shut down 2/64 for modification to permit an increase in power level to 30 MW(t). On 12/2/66, deactivation was announced. Owners: DOE and Southern California Edison Co.
Southwest Experimental Fast Oxide Reactor (NRC) [50-231]	SEFOR	GE	Sodium cooled, fast		20,000	69 00	72 00	Owner: Southwest Atomic Energy Associates
Ultra High Temperature Reactor Experiment (DOE)	UHTREX	LANL	Helium cooled		3,000	68 00	70 00	

3. University Reactors

Operable

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)		Comment
Arizona, University of (NRC) [50-113]	TRIGA -Mk I	GA	U-Zr hydride	100	58 12		
California – Davis, University of, McClellan Nuclear Radiation Center (NRC) [50-607]	UCD / MNRC	GA	TRIGA	2,300	91 01		Formerly known as McClellan Nuclear Radiation Center, USAF. University of California-Davis took possession of the reactor 8/98.
California - Irvine, University of (NRC) [50-326]	TRIGA -Mk I	GA	U-Zr hydride	250	69 11		
Florida, University of (NRC) [50-83]	UFTR	GNEC	Modified Argonaut, Graphite/water	100	59 05		
Idaho State University (NRC) [50-284]	AGN-201P -103	AGN	Homogeneous solid	negligible	67 10		The AGN-201P-103 was operated at San Ramon, CA, by Aerojet-General Corporation from 1957 to 1966. In 4/67 Idaho State University applied for a license to operate the reactor at Pocatello, ID.
Kansas State University (NRC) [50-188]	TRIGA -Mk II	GA	U-Zr hydride	250	62 10		
Maryland, University of (NRC) [50-166]	MUTR	GA	TRIGA Converted - Tank	250	74 00		Original reactor initial criticality: 60 12
Massachusetts Institute of Technology (NRC) [50-20]	MITR-II	ACF	Heavy-water reflected	5,000	58 07		
Massachusetts, University of (NRC) [50-223]	UML-RR	GE	Pool	1,000	75 01		
Michigan, University of (Ford Nuclear Reactor) (NRC) [50-2]	FNR	B&W	Pool	2,000	57 09		Scheduled to shutdown in July 2003.
Missouri, Columbia, University of (NRC) [50-186]	MURR	Owner-IC	Tank	10,000	66 10		
Missouri, Rolla, University of (NRC) [50-123]	UMRR	CW	Pool	200	61 12		

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)		Comment
New Mexico, University of (NRC) [50-252]	AGN-201M-112	AGN	Homogeneous solid	negligible	66 10		AGN-201M-112 was operated at the University of California, Berkeley, beginning in 1957. The University of New Mexico filed an application in 4/66 for transfer and reconstruction of the reactor at a site on its campus. The reactor achieved criticality at the University of New Mexico on 10/7/66.
North Carolina State University (NRC) [50-297]	PULSTAR	AMF	Pool	1,000	72 08		
Ohio State University (NRC) [50-150]	OSURR	Lockheed	Pool	500	61 03		
Oregon State University (NRC) [50-243]	OSTR TRIGA Mk F	GA	TRIGA Mk II	1,100	67 03		
Pennsylvania State University TRIGA Reactor (NRC) [50-5]	PSTR	GA	TRIGA	1,000	65 00		From 1955 to 1965, the Penn State reactor was operated as a 200-kW(t) pool-type reactor fueled with MTR-type elements.
Purdue University (NRC) [50-182]	PUR-1	Lockheed	Pool	1	62 01		
Reed College. (NRC) [50-288]	TRIGA -Mk I	GA	U-Zr hydride	250	68 07		
Rhode Island Nuclear Science Center (NRC) [50-193]	RINSC	RI	GE Pool	2,000	64 07		Also known as the Rhode Island Atomic Energy Commission
Texas A&M University (NRC) [50-59]	AGN-201M-106	AGN	Homogeneous solid	negligible	57 08		
Texas A&M University (NRC) [50-128]	NSCR		U-Zr hydride	1,000	68 00		The Nuclear Science Center Reactor at Texas A&M University has been modified for 1000-kW steady- state operation with a TRIGA-type core. Power level was 100 kW from 1962 until the modification in 1968.
Texas at Austin, University of (NRC) [50-602]	TRIGA -Mk II	GA	U-Zr hydride	1,100	92 03		
Utah, University of (NRC) [50-407]	TRIGA -Mk I	GA	U-Zr hydride	100	75 10		
Washington State University (NRC) [50-27]	WSUR	GA	Modified TRIGA	1,000	61 03		In 1967 the original MTR-type core of the Washington State University Reactor was replaced by a modified TRIGA-type core and control system, and the steady-state power level was increased from 100 to 1000 kW(t).

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)		Comment
Wisconsin, University of (NRC) [50-156]	UWNR	GA	TRIGA Mk F	1,000	61 03		The University of Wisconsin reactor has been modified for 1000-kW steady-state operation with a TRIGA- type core. Power level was 250 kW prior to modification in 1967.
Worcester Polytechnic Institute (NRC) [50-134]	WPIR	GE	Pool	10	59 12		

Note: See "Critical Assemblies" Section V for Rensselaer Polytechnic Institute.

Shutdown

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Brigham Young University (NRC) [50-262]	L-77	AI	Homogeneous		67 00	87 00	License terminated 10/29/96.
California Polytechnic State University (NRC) [50-394]	AGN-201-100	AGN	Homogeneous solid		73 00	80 00	California Polytechnic State University received a permit in 12/71 to relocate AGN-201-100 and operate it on the university's campus. The unit was previously operated starting in 1956 at the Naval Postgraduate School, Monterey, CA, NRC docket No. 50-43. In 1980, AGN-201-100 was shut down and decommissioned. License terminated 7/19/85.
California, Berkeley, University of (NRC) [50-224]	TRIGA -Mk III	GA	U-Zr hydride	1,000	66 00	87 12	License terminated 3/8/91.
California, Los Angeles, University of, School of Engineering and Applied Science (NRC) [50-142]	Educator	AMF	Graphite/water	100	60 00	84 00	License terminated 12/28/93.
California, Santa Barbara, University of (NRC) [50-433]	L-77	AI	Homogeneous		74 00	86 00	License terminated 11/17/89.
Catholic University of America (NRC) [50-77]	AGN-201-101	AGN	Homogeneous solid		57 00	86 00	License terminated 3/14/96.
Colorado State University (NRC)	AGN-201-109	AGN	Homogeneous solid		57 00	74 00	
Columbia University (NRC)	TRIGA -Mk II	GA	U-Zr hydride	250			The Columbia University TRIGA-Mk II was licensed to operate by NRC. However, the City of New York did not authorize operation, and Columbia University did not procure fuel. The license was terminated in 1985.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Cornell University Zero Power Reactor (NRC) [50-97]	ZPR	Vitro	Tank	negligible	62 00	97 02	POL.
Cornell University (NRC) [50-157]	TRIGA -Mk II	GA	U-Zr hydride	500	62 00	02 06	
Delaware, University of (NRC) [50-98]	AGN-201-113	AGN	Homogeneous solid		58 00	78 00	License terminated 2/26/79.
Georgia Institute of Technology (NRC) [50-160]	GTRR	GNEC	Heavy water	5,000	64 12	97 07	DECON, DA: 7/99
Georgia Institute of Technology (NRC) [50-267]	AGN-201-104	AGN	Homogeneous solid		68 00	85 00	AGN-201-104 operated at the University of Akron (Ohio) from 1957 until transferred to the Georgia Institute of Technology in 1967. Operations at that facility began in 1968. Decommissioning of AGN-201-104 was achieved in 1986. License terminated 1/7/86.
Illinois Institute of Technology Research Institute (NRC) [50-1]	ARR (L-54)	AI	Homogeneous	75	56 00	67 01	Owner: Armour Research Foundation. License terminated 4/28/72.
Illinois, University of (NRC)	LOPRA TRIGA-Mk II	GA	U-Zr hydride	10	71 12	95 12	DECON approved.
Illinois, University of (NRC) [50-151]	TRIGA -Mk II	GA	U-Zr hydride	1,500	69 07	99 04	DECON, DA: 9/99
Iowa State University (NRC) [50-116]	UTR-10	AS Inc.	(Argonaut) Graphite/water	10	59 00	98 05	DECON, POL 3/99
Kansas, University of (NRC) [50-148]	Model 4180	BAC	Pool	250	61 00	87 00	License terminated 10/5/93.
Leland Stanford University (NRC) [50-141]	None	GE	Pool	10	59 00	74 00	License terminated 12/19/88.
Manhattan College (NRC) [50-199]	MCZPR	AMF	Tank		64 00	96 12	SAFSTOR. DA: 3/99
Memphis State University (NRC) [50-538]	AGN-201-108	AGN	Homogeneous solid		77 00	85 00	License terminated 10/19/88.
Michigan State University (NRC) [50-294]	TRIGA -Mk I	GA	U-Zr hydride	250	69 00	89 00	The core of the Michigan State University reactor operated in the University of Illinois TRIGA facility from 1960 until transferred in 1968. The reactor has been decommissioned. The license was terminated 4/5/90.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Mississippi State University (NRC) [50-8]	RRR	Owner	Homogeneous			63 00	This reactor was originally operated by North Carolina State University as the Raleigh Research Reactor (RRR). It was transferred 3/66 to Mississippi State University for reactivation. The RRR was dismantled by NC State in 1963. Owing to funding problems this reactor was never activated. License terminated 9/7/66. Late in 1981 it was shipped to Barnwell, SC, for disposal.
Nevada, University of (NRC) [50-202]	L-77	AI	Homogeneous		63 00	74 00	License terminated 2/24/75.
North Carolina State University (NRC) [50-111]	None	Cook	Graphite/water	10	60 00	73 00	License terminated 1/13/83.
Oklahoma, University of (NRC) [50-112]	AGN-211-102	AGN	Homogeneous solid		58 00	88 00	License terminated 2/14/90.
Oregon State University (NRC) [50-106]	AGN-201-114	AGN	Homogeneous solid		58 00	74 00	License terminated 11/10/81.
Polytechnic Institute of New York (NRC) [50-216]	AGN-201M-105	AGN	Homogeneous solid		67 00	74 00	In 1957–1962, AGN-201M-105 was owned and operated by the National Naval Medical Center, Bethesda, MD. Title to the reactor was transferred to New York University early in 1964. A license to operate was issued 4/67. License terminated 12/21/77.
Puerto Rico Nuclear Center (DOE)	L-77	AI	Homogeneous		59 00	79 00	Owner: The Center for Environmental and Energy Research (formerly Puerto Rico Nuclear Center).
Puerto Rico Nuclear Center (DOE)	TRIGA-FLIP	GA	Pool-TRIGA core	2,000	72 00	76 00	This reactor was operated at the Puerto Rico Nuclear Center from 1960 to 10/76; it was converted to TRIGA-FLIP in 1972. It has been moved to the Neutron Radiography Facility at the National Engineering Laboratory in Idaho.
State University of New York. (NRC) [50-57]	PULSTAR	AMF	Pool	2,000	64 06	96 07	The State University of New York at Buffalo reactor ceased operation 6/94. POL 6/97.
Texas at Austin, University of (NRC) [50-192]	TRIGA-Mk I	GA	U-Zr hydride	250	63 00	91 00	License terminated 10/13/93.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Tuskegee Institute (NRC) [50-406]	AGN-201-102	AGN	Homogeneous solid		74 00	84 12	AGN-201-102 was operated at Oklahoma State University, Stillwater, OK, from 1957 until transferred to Tuskegee Institute in 1972; there it was licensed to operate but was never started up. Tuskegee Institute returned the fuel to the Department of Energy, and the operating license was terminated 11/2/84.
Utah, University of (NRC) [50-72]	AGN-201-107	AGN	Homogeneous solid		57 00	91 00	
Virginia, University of (NRC) [50-396]	CAVALIER	Owner	Pool		74 00	88 01	DECON
Virginia, University of (NRC) [50-62]	UVAR	Owner-B&W	Pool	2,000	60 06	98 06	DECON
Virginia Polytechnic Institute (NRC) [50-124]	UTR-10	AS. Inc.	Graphite/water	100	59 00	84 00	License terminated 8/11/88.
Washington, University of (NRC) [50-139]	Educator	AMF	(Argonaut) Graphite/water	100	61 00	88 06	DECON
West Virginia University (NRC) [50-129]	AGN-211-103	AGN	Homogeneous solid		59 00	72 00	License terminated 9/7/84.
William Marsh Rice University (NRC) [50-114]	AGN-211-101	AGN	Homogeneous solid		59 00	65 00	License terminated 9/26/67.
Wyoming, University of (NRC) [50-122]	L-77	AI	Homogeneous		59 00	74 00	License terminated 12/5/75.

4. Research and Test Reactors

Operable

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)		Comment
Advanced Test Reactor (DOE)	ATR	LMITCO	Tank	250,000	67 07		Fuels and materials research, and irradiation of isotopes.
Aerotest Operations, Inc. (NRC) [50-228]	AGNIR-TRIGA	GA	TRIGA converted-Pool	250	65 07		
Annular Core Research Reactor (DOE)	ACRR	Sandia	UO ₂ -BeO	4,000	78 04		Pulse, computer-controlled high-power transient steady state. 30,000 MW pulsed (previously known as ACPR)
Dow Chemical Co. (NRC) [50-264]	TRIGA-Mk I	GA	U-Zr hydride	300	67 07		
General Electric Nuclear Test Reactor (NRC) [50-73]	NTR	GE	LWR Graphite	100	57 11		
High Flux Isotope Reactor (DOE)	HFIR	ORNL	Tank flux trap	85,000	65 08		
National Institute of Standards & Technology (NRC) [50-184]	NIST	NBS-B&R	Heavy water	20,000	70 06		
Neutron Radiography Facility (DOE)	NRAD	ANL	Pool-TRIGA core	250	77 10		Radiography of reactor fuels and structural specimens.
Omaha Veterans Administration Hospital (NRC) [50-131]	TRIGA-Mk I	GA	U-Zr hydride	18	59 06		
Sandia Pulsed Reactor II (DOE)	SPR-II	Sandia	Fast burst	25	67 03		Pulse, steady state.
Sandia Pulsed Reactor III (DOE)	SPR-III	Sandia	Bare metal fast burst	25	75 08		Pulse, steady state.
U.S. Geological Survey Laboratory (Department of the Interior) (NRC) [50-274]	GTSR TRIGA-Mk I	GA	U-Zr hydride	1,000	69 02		

Shutdown

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Advanced Reactivity Measurement Facility (DOE)	ARMF	LMITCO	Pool	100	60 10	01 12	Fast and thermal neutron irradiations and reactivity measurements. Reactor decommissioning complete.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
American Standard Inc. (NRC)	UTR-1	AS, Inc.	Graphite/water		58 06	60 00	This reactor was shipped abroad for exhibition purposes in the USAEC Atoms for Peace Exhibit in the Tokyo International Trade Fair in 1959, and in Cairo, Egypt, and Lahore, Pakistan in 1960.
Ames Laboratory Research Reactor (DOE)	ALRR	AMF	Heavy water	5,000	65 00	77 00	Totally dismantled in 1981.
Annular Core Pulsed Reactor (DOE)	ACPR	GA	U-Zr hydride		67 06	77 01	In 1977 the Annular Core Pulsed Reactor (ACPR) was shut down. After replacement of fuel and other modifications, the unit was renamed the Annular Core Research Reactor (ACRR).
Argonne CP-3, rebuilt as CP-3 (DOE)	CP-3	Met. Lab	Heavy water	300	44 00	63 00	
Argonne Fast Source Reactor (DOE)	AFSR	ANL	Fast	1	59 10	79 12	Partially dismantled.
Argonne Low Power Research Reactor (DOE)	Juggernaut	ANL	Graphite/water	250	62 00	70 00	After the assembly and operation of this reactor in the government exhibit at Geneva in 9/58, it was dismantled and returned to ANL, where it was rebuilt as a 250-kW(t) Juggernaut.
Argonne National Laboratory (DOE)	AGN-201-108	AGN	Homogeneous solid		57 00	72 00	
Argonne Nuclear Assembly for University Training (DOE)	Argonaut (CP-11)	ANL	Graphite/water	10	57 00	72 00	
Argonne Thermal Source Reactor (DOE)	ATSR	ANL	Thermal	10	57 00	88 00	
Atomics International (NRC) [50-50]	L-47	AI	Homogeneous		57 00	58 00	License terminated 6/30/58.
Babcock & Wilcox Lynchburg Pool Reactor (NRC) [50-99]	LRP	Owner	Pool	1,000	58 00	81 00	License terminated 7/20/82.
Babcock & Wilcox Nuclear Development Center Test Reactor (NRC) [50-200]	BAWTR	Owner	Pool	6,000	64 00	71 00	In SAFSTOR, materials license.
Battelle Memorial Institute (NRC) [50-6]	BRR	AMF	Pool	2,000	56 00	74 00	License terminated 12/22/87.
Brookhaven Graphite Research Reactor (DOE)	BGRR	AU, Inc.	Air cooled, graphite moderated	20,000	50 08	68 06	Decommissioning underway.
Brookhaven Medical Research Reactor (DOE)	BMRR	Daystrom	Tank	5,000	59 00	00 12	Reactor defueled.
Brookhaven Neutron Source Reactor No. 1 (DOE)	SCHIZO	AU, Inc.	Tank	100	58 00	70 00	
Brookhaven Neutron Source Reactor No. 2 (DOE)	PHRENIC	AU, Inc.	Tank	100	65 00	70 00	
Bulk Shielding Reactor (DOE)	BSR	ORNL	Pool	2,000	50 00	91 00	Reactor defueled.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Chicago Pile 1, rebuilt as CP-2 (DOE)	CP-2	Met. Lab.	Graphite		42 12	54 00	In 1943 Manhattan Engineer District disassembled Chicago Pile 1 and rebuilt it at Palos Park, IL, as Chicago Pile 2. CP-2 had a thermal- power level of 10 kW.
Chicago Pile No. 5 (DOE)	CP-5	ANL	Heavy water	5,000	54 02	79 09	
Cintichem, Inc. Reactor (NRC) [50-54]	CINR	AMF	Pool	5,000	61 00	90 00	License terminated 8/19/98.
Coupled Fast Reactivity Measurement Facility (DOE)	CFRMF	LMITCO	Pool	100	62 12	01 12	Fast and thermal neutron irradiations, neutron radiography, and thermal and fast fissile array. Decommissioning complete.
Curtiss-Wright Nuclear Research Laboratory of the Commonwealth of Pennsylvania (NRC) [50-310]	CWRR	Owner	Pool	1,000	58 00	66 00	License terminated 12/2/66.
DOE Demonstration Reactor (DOE)	Demo Reactor	Lockheed	Pool	10	69 00	69 00	This reactor was formerly called the Latin American Demonstration Reactor and was operated initially in São Paulo, Brazil, 10/69.
Engineering Test Reactor (DOE)	ETR	KE-GE	Tank	175,000	57 00	81 00	Reactor was shut down in 1973 for modifications and insertion of Sodium Loop Safety Facility (SLSF) loop. Operation resumed in 1975. Deactivated in 1981.
European-Asian Exhibit Program (DOE)	EAEP	Lockheed	Pool	10	63 00	69 00	This reactor was operated in the USAEC Atoms for Peace Exhibit in Vienna, Austria, 6/63; Belgrade, Yugoslavia, 9/63; Madrid, Spain, 4/64; Lisbon, Portugal, 4/65; Utrecht, Netherlands, 3/66; Dublin, Ireland, 9/66 to 10/66; Ankara, Turkey, 4/67 to 5/67; Tehran, Iran, 11/67 to 12/67; Taipei, Taiwan, 4/68 to 5/68; Seoul, Korea, 9/68 to 10/68; Manila, Philippines, 2/69 to 3/69; and Bucharest, Romania, 10/69.
Fast Flux Test Facility (DOE)	FFTF	WHC	Sodium cooled, loop	291,000	80 02	93 12	The Fast Flux Test Facility is permanently shutdown and is being deactivated.
Fast Neutron Source Reactor (DOE)	BNL/FS-1	BNL	Fast		67 00	70 00	
General Atomics, Advanced TRIGA-Mk F Prototype Reactor (NRC) [50-163]	TRIGA -Mk F	GA	U-Zr hydride	1,500	60 00	94 09	DECON, DA 8/99.
General Atomics, TRIGA-Mk I Prototype Reactor (NRC) [50-89] La Jolla, CA	TRIGA -Mk I	GA	U-Zr hydride	250	58 00	96 12	DECON, POL 3/95, DA 8/99
General Atomics Technologies (DOE)	TRIGA -Mk II	Owner	U-Zr hydride	50	60 00	60 00	This TRIGA-Mk II was operated at the New Delhi World Agricultural Fair in 1960. It was dismantled for storage in California by Chevron USA Corporation. Owner: World Agricultural Fair-U.S. Exhibit Reactor.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
General Electric Testing Reactor (NRC) [50-70]	GETR	Owner	Tank	50,000	58 00	77 00	Shutdown June 1985. POL.
Health Physics Research Reactor (DOE)	HPRR	ORNL	Fast burst	10	62 00	91 00	Shut down—Defueled.
High Flux Beam Reactor (DOE)	HFBR	BNL	Heavy water	30,000	65 10	99 11	Reactor defueled, vessel drained.
High Temperature Lattice Test Reactor (DOE)	HTLTR	PNNL	Graphite moderated	2	67 00	71 00	
Industrial Reactor Laboratories, Inc. (NRC) [50-17]	IRL	AMF	Pool	5,000	58 00	75 00	License terminated, 11/4/77.
JANUS Reactor (DOE)	JANUS	ANL	Tank	200	64 00	92 00	
Kinetic Experiment on Water Boilers (NRC)	KEWB	AI	Homogeneous		56 00	67 00	The KEWB reactor was operated by AI from 1956 to 1967 as the Kinetic Experiment on Water Boilers. Owner: Rockwell International. No power listed: transient.
King Intense Neutron Generator (DOE)	Kinglet	LANL	Homogeneous		72 00	77 00	Transient.
Kiwi-Transient Test Reactor (DOE)	Kiwi-TTR	LANL	Kiwi/NERVA		65 00	65 00	
Livermore Pool Type Reactor (DOE)	LPTR	FW	Tank	3,000	57 00	80 00	
Livermore Water Boiler (DOE)	LIWB	AI	Homogeneous	1	53 00	61 00	
Lockheed Aircraft Corp (NRC) [50-167]	None	Lockheed	Pool		60 00	60 00	License terminated 9/1/60.
Los Alamos Fast Reactor (DOE)	Clementine	LANL	Fast, plutonium fuel mercury cooled	25	46 00	53 00	
Los Alamos LOPO Reactor (DOE)	LOPO	LANL	Homogeneous		44 00	44 00	
Los Alamos Water Boiler (DOE)	HYPO	LANL	Homogeneous	6	44 00	50 00	
Los Alamos Water Boiler (DOE)	SUPO	LANL	Homogeneous	25	50 00	74 00	
Loss of Fluid Test (DOE)	LOFT	EG&G-ID	PWR	55,000	78 00	85 07	LOFT covered most of the concerns related to light- water safety. The first tests were done for NRC, and the last eight were done for a consortium of OECD countries and the U.S. The last two fission-product- release tests measured release and transport of fission products. There was an intentional core damage causing a partial meltdown. Facility has been inactivated and placed in cold standby.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Louisiana State University Nuclear Service Center (DOE)	SNARE	Sandia	Pool	2	65 00	66 00	In 1965 and 1966 this reactor operated at Sandia, NM, as SNARE. Prior to that time it was operated at INEEL as the Shield Test Pool Reactor (SUSIE) in the Aircraft Nuclear Propulsion Program from 1959 to 1962. It was shut down in 1966 and transferred to Louisiana State University 6/66, where it was never assembled. Owner: Phillips Petroleum Co.
Low Intensity Test Reactor (DOE)	LITR	ORNL	Tank	3,000	50 00	68 00	
Low Temperature Neutron Irradiation Facility (DOE)	LTNIF	ORNL	Pool		86 00	91 00	
Materials Testing Reactor (DOE)	MTR	ORNL-ANL-Blaw-Knox	Tank	40,000	52 00	70 00	In August 1958 the MTR was operated with an experimental plutonium core at power levels up to 30,000 kW(t). It demonstrated the ability of plutonium fuel elements to perform satisfactorily in a high-flux research or test reactor. Operation as a test reactor was terminated 6/30/69, and a Plutonium-240 (Phoenix) core was run in FY 1970. Reactor was decommissioned in 1974.
NASA Mock-Up Reactor (NRC) [50-185]	MUR	Lockheed	LWR	100	63 00	73 07	DECON
Neutron Radiography Facility (DOE)	NRF	WHC	U-Zr hydride	250	77 00	90 00	The Neutron Radiography Facility was used to perform neutron radiography of reactor fuel pins. The reactor was shut down in 1989 and has been converted to a fuel storage basin.
Northrop Corporate Laboratories (NRC) [50-187]	TRIGA -Mk F	GA	U-Zr hydride	1,000	63 00	86 00	Owner: Space Radiation Laboratory. This TRIGA reactor was capable of being pulsed and of steady-state operation. License terminated 6/29/86.
Nuclear Effects Reactor, FRAN (DOE)	FRAN	LLNL/PPC	Prompt burst		62 00	70 00	Until mid-1967 FRAN was operated by LLNL at the Nevada Test Site, and until 1970 it was operated in the former ML-1 reactor area at INEEL. In mid-1970 it was transferred back to LLNL. Fuel was removed for processing.
Nuclear Effects Reactor, KUKLA (DOE)	KUKLA	LLNL	Prompt burst		59 00	64 00	

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Nuclear Examination Reactor (NRC) [50-375]	L-85 (AE-6)	AI	Homogeneous	3,000	52 00	80 00	Ownership of this reactor was transferred to North American Rockwell 12/71 and was redesignated the Nuclear Examination Reactor or L-85 rather than AE-6. The AE-6, also designated WBNS, was built and first operated at Downey, CA. It was moved to Santa Susana in 1956. License terminated 4/8/87.
Oak Ridge Graphite Reactor (DOE)	ORG	CL	Graphite	3,500	43 00	63 00	
Oak Ridge Research Reactor (DOE)	ORR	ORNL	Tank	30,000	58 00	87 00	Reactor defueled.
Omega West Reactor (DOE)	OWR	LANL	Tank	8,000	56 00	94 00	Reactor defueled.
Pawling Research Reactor (NRC) [50-101]	PRR	UNC	LWR		58 00	71 00	Owner: United Nuclear Corp. License terminated 6/25/74.
Physical Constants Test Reactor (DOE)	PCTR	PNNL	Graphite	0	55 00	72 00	
Plum Brook Reactor Facility (NRC) [50-30]	NASA-TR	NASA	Tank	60,000	61 00	73 07	DECON
Power-Burst Facility (DOE)	PBF	EG&G-ID	Open tank	28,000	73 00	92 00	
Radiation Effects Reactor (NRC) [50-172]	RER	Lockheed	Pool	3,000	58 00	70 00	The RER was previously used in the terminated Aircraft Nuclear Propulsion Program. A license authorizing Lockheed to operate the reactor as a commercial facility was issued 7/62, and 8/62 the USAF transferred the facility to the General Services Administration. Lockheed acquired the title to the facility 3/65. License terminated 8/31/71.
Rockwell International (NRC) [50-94]	L-77	AI	Homogeneous	10	59 01	74 00	License terminated 2/11/82.
Sandia Engineering Reactor (DOE)	SER	Sandia	Tank	5,000	61 00	70 00	Shutdown—Defueled.
Sandia Pulsed Reactor (DOE)	SPR	Sandia	Prompt burst		61 00	67 00	
Shield Test and Irradiation Reactor (DOE)	STIR	AI	Pool	1,000	61 00	72 00	This reactor was previously designated STF for SNAP Shield Test Facility.
Special Power Excursion Reactor Test No. 1 (DOE)	SPERT-1	PPC	Open tank		55 00	64 00	
Special Power Excursion Reactor No. 2 (DOE)	SPERT-2	PPC	PWR		60 00	65 00	
Special Power Excursion Reactor Test No. 3 (DOE)	SPERT-3	PPC	PWR		58 00	68 00	
Special Power Excursion Reactor Test No. 4 (DOE)	SPERT-4	INC	Pool		62 00	70 00	
Thermal Test Reactor No. 2 (DOE)	TTR-2	PNNL	Graphite	0	55 00	72 00	
Torrey Pines, TRIGA-Mk III Reactor (NRC) [50-227]	TRIGA-Mk III	Owner	U-Zr hydride	1,500	66 00	73 00	Owner: General Atomic. License terminated 12/10/75.

Name (Regulatory agency) [Docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Tower Shielding Reactor (DOE)	TSR	ORNL	BSR-type in tank	500	54 00	58 00	
Tower Shielding Reactor No. II (DOE)	TSR-2	ORNL	Light water	1,000	60 03	92 00	To be defueled.
Transient Reactor Test Facility (DOE)	TREAT	ANL	Graphite	120 (steady); 19,000 (transient)	59 02	94 09	In standby condition.
UTR Test Reactor (NRC)	None	Owner	Graphite/water		61 00	63 00	Owner: American Radiator & Standard Sanitary Corp.
Westinghouse Nuclear Training Center (NRC) [50-87]	WNTR	West.	Tank	10	72 00	87 00	License Terminated 10/27/88.
Westinghouse Testing Reactor (NRC) [50-22]	WTR	West.	Tank	20,000	59 00	63 03	Owner: CBS Corporation. SAFSTOR, Decommissioning Amendment issued.

PART II SPACE POWER

1. Space Nuclear Auxiliary Power (SNAP)

Shutdown

Name (Regulatory agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
SNAP-02 Developmental System (DOE)	S2DS	AI	NaK-cooled		50	61 00	63 00	
SNAP-02 Experimental Reactor (DOE)	SER	AI	NaK-cooled		50	59 00	60 00	
SNAP-02/10A TSF Shielding Experiment (DOE)	SNAP-TSF	AI-ORNL	NaK-cooled		10	67 00	73 00	
SNAP-08 Developmental Reactor (DOE)	S8DR	AI	NaK-cooled		600	68 00	69 00	
SNAP-08 Experimental Reactor (DOE)	S8ER	AI	NaK-cooled		600	62 00	65 00	
SNAP-10A Flight System (DOE)	S10FS-4	AI	NaK-cooled	0.5	39	65 00	65 00	S10FS-4 operated in orbit April–May 1965. Operation terminated unexpectedly after 43 days at power, probably owing to a sequence of failures of electrical components of the spacecraft with resulting spurious commands shutting down the reactor. An identical ground test unit, S10FS-3, operated successfully for more than a year before being shut down in 1966.
SNAP-10A Flight System (DOE)	S10FS-5	AI	NaK-cooled	0.5	39	(Spare)		
SNAP-10A Flight System Ground Test No. 1 (DOE)	S10FS-1	AI	NaK-cooled	0.5	39	64 00	64 00	
SNAP-10A Flight System Ground Test No. 3 (DOE)	S10FS-3	AI	NaK-cooled	0.5	39	64 00	66 00	See comment for SNAP-10A Flight System, S10FS-4.

Name (Regulatory agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
SNAP-10A Transient Test No. 2 (DOE)	SNAPTRAN -2	AI-PPC	Be reflected SNAP-10A			65 00	66 01	The SNAPTRAN series of experiments was designed to develop, in a land-based environment, safety information on space auxiliary power reactors through excursion testing at various temperatures and rates of reactivity insertion. The destructive experiments approach the maximum credible accidents postulated for SNAP reactor systems. SNAPTRAN-1 was converted to SNAPTRAN-2 for destructive testing 1/66.
SNAP-10A Transient Test No. 3 (DOE)	SNAPTRAN -3	PPC-AI	Water reflected SNAP-10A			64 00	64 00	

2. Space Propulsion

Shutdown

Name (Regulatory agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Fuel Element Test Bed (DOE)	NF-1	LANL	Open cycle, gaseous hydrogen		44	72 00	72 00	
Fuel Element Test Reactor (DOE)	Pewee-1	LANL	Open cycle, liquid hydrogen		514	Undet.	68 00	
Fuel Element Test Reactor (DOE)	Pewee-2	LANL	Open cycle, liquid hydrogen		514	Undet.	73 00	

Name (Regulatory agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Ground Experimental Engine Experiment (DOE)	XE-Backup	AG-West.	Open cycle, liquid hydrogen		1,100	Undet.	73 00	
Ground Experimental Engine Experiment (DOE)	XE-Prime	AG-West.	Open cycle, liquid hydrogen		1,100	68 00	69 00	
Nuclear Rocket Engine Reactor Experiment - NERVA (DOE)	NRX-A2	AG-West.	Open cycle, liquid hydrogen		110	64 00	64 00	
Nuclear Rocket Engine Reactor Experiment - NERVA (DOE)	NRX-A3	AG-West.	Open cycle, liquid hydrogen		1,100	65 00	65 00	
Nuclear Rocket Engine Reactor Experiment - NERVA (DOE)	NRX-A5	AG-West.	Open cycle, liquid hydrogen		1,120	66 00	66 00	
Nuclear Rocket Engine Reactor Experiment - NERVA (DOE)	NRX-A6	AG-West.	Open cycle, liquid hydrogen		1,199	67 00	67 00	
Nuclear Rocket Reactor Engine System Test - NERVA (DOE)	NRX-A4/EST	AG-West.	Open cycle, liquid hydrogen		1,155	66 00	66 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-A	LANL	Open cycle, gaseous hydrogen		70	59 00	59 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-A Prime	LANL	Open cycle, gaseous hydrogen		85	60 00	60 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-A3	LANL	Open cycle, gaseous hydrogen		100	60 00	60 00	

Name (Regulatory agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net MW(e)	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-B1A	LANL	Open cycle, gaseous hydrogen		300	61 00	61 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-B1B	LANL	Open cycle, liquid hydrogen		900	62 00	62 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-B4A	LANL	Open cycle, liquid hydrogen		500	62 00	62 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-B4D	LANL	Open cycle, liquid hydrogen		1,000	64 00	64 00	
Nuclear Rocket Reactor Experiment (DOE)	Kiwi-B4E	LANL	Open cycle, liquid hydrogen		950	64 00	64 00	
Nuclear Rocket Reactor Experiment (DOE)	Phoebus 1A	LANL	Open cycle, liquid hydrogen		1,070	65 00	65 00	
Nuclear Rocket Reactor Experiment (DOE)	Phoebus 1B	LANL	Open cycle, liquid hydrogen		1,400	67 00	67 00	
Nuclear Rocket Reactor Experiment (DOE)	Phoebus 2A	LANL	Open cycle, liquid hydrogen		4,200	68 00	68 00	

PART III PRODUCTION REACTORS

1. Materials Production

Shutdown

Name	Principal Nuclear Contractor	Type	Power Authorized MW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
B Reactor (DOE)	Du Pont	Graphite		44 00	68 00	
C Reactor (DOE)	GE	Graphite		52 00	69 00	
C Reactor (DOE)	Du Pont	Heavy water		55 00	87 00	
D Reactor (DOE)	Du Pont	Graphite		44 00	67 00	
DR Reactor (DOE)	GE	Graphite		50 00	64 00	
F Reactor (DOE)	Du Pont	Graphite		45 00	65 00	
H Reactor (DOE)	GE	Graphite		49 00	65 00	
K Reactor (DOE)	Du Pont	Heavy water		54 00	96 01	
KE Reactor (DOE)	GE	Graphite		55 00	71 00	
KW Reactor (DOE)	GE	Graphite		55 00	70 00	
L Reactor (DOE)	Du Pont	Heavy water		54 00	93 00	
N Reactor (DOE)	WHC	Graphite	4,000	63 12	91 00	N Reactor was a dual-purpose reactor for production of special nuclear materials and steam to supply an adjacent electric generating plant, owned and operated by Washington Public Power Supply System. The reactor had a net capacity of 860 MW of electric power, and is in the process of being decommissioned.
P Reactor (DOE)	Du Pont	Heavy water		54 00	93 00	
R Reactor (DOE)	Du Pont	Heavy water		53 00	64 00	

2. Process Development

Shutdown

Name (all owned by DOE)	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Hanford 305 Test Reactor	HTR	Du Pont	Graphite		44 00	76 00	Negligible power.
Lattice Test Reactor	LTR	Du Pont	Heavy water	1	67 00	79 00	
Process Development Pile	PDP	Du Pont	Heavy water	1	53 00	79 00	
SR 305-M Test Pile	Test Pile	Du Pont	Graphite	1	53 00	83 00	SR 305-M Test Pile was used to measure the reactivity effects of components (fuel tubes, target tubes, control rods, etc.) prior to use in Savannah River (SR) reactors. In addition, the Test Pile was used to measure the neutron absorption of miscellaneous materials used at SR. The Test Pile has been dismantled.
Standard Pile/ Subcritical Experimental Complex	SP/SE	Du Pont	Graphite	2	53 00	79 00	The SP—an enriched uranium-fueled, graphite-moderated, water-cooled reactor—supplied neutrons.

PART IV SEAGOING AND MILITARY REACTORS

1. Propulsion

The abbreviations used here are defined as follows:

SSN, Submarine (Nuclear Propulsion)

SSBN, Fleet Ballistic Missile Submarine (Nuclear Propulsion)

SSGN, Guided Missile Submarine (Nuclear Propulsion)

CGN, Guided Missile Cruiser (Nuclear Propulsion)

CVN, Aircraft Carrier (Nuclear Propulsion)

NR, Deep Submergence Research Vehicle (Nuclear Propulsion)

Operable

Name	Designation	Shipbuilder	Startup (yr mo)		Comment
USS NARWHAL	SSN671	Electric Boat (Groton)	69 07		In Reserve (Stand Down) as of 1/99
USS PARCHE	SSN683	Ingalls	74 08		
USS LOS ANGELES	SSN688	Newport News	76 11		
USS PHILADELPHIA	SSN690	Electric Boat (Groton)	77 06		
USS MEMPHIS	SSN691	Newport News	77 12		
USS BREMERTON	SSN698	Electric Boat (Groton)	81 03		
USS JACKSONVILLE	SSN699	Electric Boat (Groton)	81 05		
USS DALLAS	SSN700	Electric Boat (Groton)	81 07		
USS LA JOLLA	SSN701	Electric Boat (Groton)	81 09		
USS CITY OF CORPUS CHRISTI	SSN705	Electric Boat (Groton)	83 01		
USS ALBUQUERQUE	SSN706	Electric Boat (Groton)	83 05		
USS PORTSMOUTH	SSN707	Electric Boat (Groton)	83 08		
USS MINNEAPOLIS-SAINT PAUL	SSN708	Electric Boat (Groton)	84 03		
USS HYMAN G. RICKOVER	SSN709	Electric Boat (Groton)	84 07		
USS AUGUSTA	SSN710	Electric Boat (Groton)	85 01		
USS SAN FRANCISCO	SSN711	Newport News	81 04		
USS HOUSTON	SSN713	Newport News	82 09		
USS NORFOLK	SSN714	Newport News	83 05		
USS BUFFALO	SSN715	Newport News	83 11		
USS SALT LAKE CITY	SSN716	Newport News	84 05		
USS OLYMPIA	SSN717	Newport News	84 11		
USS HONOLULU	SSN718	Newport News	85 07		
USS PROVIDENCE	SSN719	Electric Boat (Groton)	85 07		
USS PITTSBURGH	SSN720	Electric Boat (Groton)	85 11		
USS CHICAGO	SSN721	Newport News	86 10		
USS KEY WEST	SSN722	Newport News	87 09		
USS OKLAHOMA CITY	SSN723	Newport News	88 07		
USS LOUISVILLE	SSN724	Electric Boat (Groton)	86 11		

Name	Designation	Shipbuilder	Startup (yr mo)		Comment
USS HELENA	SSN725	Electric Boat (Groton)	87 07		
USS OHIO	SSBN726	Electric Boat (Groton)	81 10		Temporarily Out of Service - Being converted to SSGN
USS MICHIGAN	SSBN727	Electric Boat (Groton)	82 09		Temporarily Out of Service - Being converted to SSGN
USS FLORIDA	SSBN728	Electric Boat (Groton)	83 06		Temporarily Out of Service - Being converted to SSGN
USS GEORGIA	SSBN729	Electric Boat (Groton)	84 02		Temporarily Out of Service - Being converted to SSGN
USS HENRY M. JACKSON	SSBN730	Electric Boat (Groton)	84 10		
USS ALABAMA	SSBN731	Electric Boat (Groton)	85 05		
USS ALASKA	SSBN732	Electric Boat (Groton)	86 01		
USS NEVADA	SSBN733	Electric Boat (Groton)	86 08		
USS TENNESSEE	SSBN734	Electric Boat (Groton)	88 12		
USS PENNSYLVANIA	SSBN735	Electric Boat (Groton)	89 09		
USS WEST VIRGINIA	SSBN736	Electric Boat (Groton)	90 10		
USS KENTUCKY	SSBN737	Electric Boat (Groton)	91 07		
USS MARYLAND	SSBN738	Electric Boat (Groton)	92 06		
USS NEBRASKA	SSBN739	Electric Boat (Groton)	93 07		
USS RHODE ISLAND	SSBN740	Electric Boat (Groton)	94 07		
USS MAINE	SSBN741	Electric Boat (Groton)	95 07		
USS WYOMING	SSBN742	Electric Boat (Groton)	96 07		
USS LOUISIANA	SSBN743	Electric Boat (Groton)	97 09		
USS NEWPORT NEWS	SSN750	Newport News	89 06		
USS SAN JUAN	SSN751	Electric Boat (Groton)	88 08		
USS PASADENA	SSN752	Electric Boat (Groton)	89 02		
USS ALBANY	SSN753	Newport News	90 04		
USS TOPEKA	SSN754	Electric Boat (Groton)	89 10		
USS MIAMI	SSN755	Electric Boat (Groton)	90 06		
USS SCRANTON	SSN756	Newport News	91 01		
USS ALEXANDRIA	SSN757	Electric Boat (Groton)	91 06		
USS ASHEVILLE	SSN758	Newport News	91 09		
USS JEFFERSON CITY	SSN759	Newport News	92 02		
USS ANNAPOLIS	SSN760	Electric Boat (Groton)	92 04		
USS SPRINGFIELD	SSN761	Electric Boat (Groton)	93 01		
USS COLUMBUS	SSN762	Electric Boat (Groton)	93 07		
USS SANTA FE	SSN763	Electric Boat (Groton)	94 01		
USS BOISE	SSN764	Newport News	92 11		
USS MONTPELIER	SSN765	Newport News	93 03		
USS CHARLOTTE	SSN766	Newport News	94 09		
USS HAMPTON	SSN767	Newport News	93 11		
USS HARTFORD	SSN768	Electric Boat (Groton)	94 12		
USS TOLEDO	SSN769	Newport News	95 02		
USS TUCSON	SSN770	Newport News	95 08		
USS COLUMBIA	SSN771	Electric Boat (Groton)	95 10		
USS GREENEVILLE	SSN772	Newport News	96 02		
USS CHEYENNE	SSN773	Newport News	96 09		

Name	Designation	Shipbuilder	Startup (yr mo)		Comment
USS SEAWOLF	SSN21	Electric Boat (Groton)	97 07		
USS CONNECTICUT	SSN22	Newport News	98 12		
USS ENTERPRISE	CVN65	Newport News	61 11		8 Reactors
USS NIMITZ	CVN68	Newport News	75 05		2 Reactors
USS DWIGHT D. EISENHOWER	CVN69	Newport News	77 10		2 Reactors
USS CARL VINSON	CVN70	Newport News	82 03		2 Reactors
USS THEODORE ROOSEVELT	CVN71	Newport News	86 10		2 Reactors
USS ABRAHAM LINCOLN	CVN72	Newport News	89 11		2 Reactors
USS GEORGE WASHINGTON	CVN73	Newport News	92 07		2 Reactors
USS JOHN C. STENNIS	CVN74	Newport News	95 12		2 Reactors
USS HARRY TRUMAN	CVN75	Newport News	98 07		2 Reactors
Deep Submergence Research Vehicle	NR-1	Electric Boat (Groton)	69 00		

Being Built/Planned

Name	Designation	Shipbuilder	Start-up (yr mo)		Comments
USS JIMMY CARTER	SSN23	General Dynamics (Groton)			
USS VIRGINIA	SSN774	General Dynamics (Groton)			Delivery scheduled for 2004.
USS TEXAS	SSN775	Newport News			Delivery scheduled for 2005.
USS HAWAII	SSN776	General Dynamics (Groton)			Delivery scheduled for 2007.
USS NORTH CAROLINA	SSN777	Newport News			Delivery scheduled for 2006.
USS RONALD REAGAN	CVN76	Newport News			Delivery scheduled for 2003.
USS GEORGE H.W. BUSH	CVN77	Newport News			Delivery scheduled for 2009.

Shutdown

Name	Designation	Shipbuilder	Start-up (yr mo)	Shutdown (yr mo)	Comments
USS NAUTILUS	SSN571	Electric Boat (Groton)	54 09	80 03	
USS SEAWOLF PWR*	SSN575	Electric Boat (Groton)	60 09	87 07	
USS SEAWOLF Sodium Reactor	SSN575	Electric Boat (Groton)	57 03	59 00	The SEAWOLF, originally commissioned with a sodium-cooled reactor in 3/57, was recommissioned with a pressurized-water reactor on 9/30/60.
USS SKATE*	SSN578	Electric Boat (Groton)	57 12	86 09	
USS SWORDFISH*	SSN579	Portsmouth	58 09	89 06	
USS SARGO*	SSN583	Mare Island	58 10	88 02	
USS SEADRAGON*	SSN584	Portsmouth	59 12	86 06	
USS SKIPJACK*	SSN585	Electric Boat (Groton)	59 04	90 04	
USS TRITON (2 Reactors)	SSN586	Electric Boat (Groton)	59 11	86 04	
USS HALIBUT*	SSN587	Mare Island	60 01	86 04	

Name	Designation	Shipbuilder	Start-up (yr mo)	Shutdown (yr mo)	Comments
USS SCAMP*	SSN588	Mare Island	61 06	88 04	
USS SCORPION	SSN589	Electric Boat (Groton)	60 07	68 06	The SCORPION was lost in the Atlantic 5/21/68.
USS SCULPIN	SSN590	Ingalls	61 06	90 08	
USS SHARK*	SSN591	Newport News	61 02	90 09	
USS SNOOK*	SSN592	Ingalls	61 10	86 10	
USS THRESHER	SSN593	Portsmouth	61 08	63 04	The THRESHER was lost in the Atlantic 4/10/63.
USS PERMIT*	SSN594	Mare Island	62 05	91 07	
USS PLUNGER*	SSN595	Mare Island	62 11	90 02	
USS BARB*	SSN596	Ingalls	63 08	89 12	
USS TULLIBEE*	SSN597	Electric Boat (Groton)	60 11	88 06	
USS GEORGE WASHINGTON*	SSN598	Electric Boat (Groton)	59 12	85 01	
USS PATRICK HENRY*	SSN599	Electric Boat (Groton)	60 04	84 05	
USS THEODORE ROOSEVELT*	SSBN600	Mare Island	61 02	81 02	
USS ROBERT E. LEE*	SSN601	Newport News	60 09	83 12	
USS ABRAHAM LINCOLN*	SSBN602	Electric Boat (Groton)	61 03	81 02	
USS POLLACK*	SSN603	NYSC	64 05	89 03	
USS HADDO*	SSN604	NYSC	64 12	91 06	
USS JACK*	SSN605	Portsmouth	67 03	90 07	
USS TINOSA*	SSN606	Portsmouth	64 11	92 01	
USS DACE*	SSN607	Ingalls	64 04	88 12	
USS ETHAN ALLEN*	SSN608	Electric Boat (Groton)	61 08	83 03	
USS SAM HOUSTON*	SSN609	Newport News	62 03	91 09	
USS THOMAS A. EDISON*	SSN610	Electric Boat (Groton)	62 03	83 12	
USS JOHN MARSHALL*	SSN611	Newport News	62 05	92 07	
USS GUARDFISH*	SSN612	NYSC	66 12	92 02	
USS FLASHER*	SSN613	Electric Boat (Groton)	66 07	92 09	
USS GREENLING*	SSN614	GD (Quincy)	67 11	94 04	
USS GATO*	SSN615	GD (Quincy)	68 01	96 04	
USS LAFAYETTE*	SSBN616	Electric Boat (Groton)	63 04	91 08	
USS ALEXANDER HAMILTON*	SSBN617	Electric Boat (Groton)	63 06	93 02	
USS THOMAS JEFFERSON*	SSN618	Newport News	63 01	85 01	
USS ANDREW JACKSON*	SSBN619	Mare Island	63 07	89 08	
USS JOHN ADAMS*	SSBN620	Portsmouth	64 05	89 03	
USS HADDOCK	SSN621	Ingalls	67 12	93 04	
USS JAMES MONROE*	SSBN622	Newport News	63 12	90 09	
USS NATHAN HALE*	SSBN623	Electric Boat (Groton)	63 11	86 12	
USS WOODROW WILSON*	SSBN624	Mare Island	63 12	94 09	
USS HENRY CLAY*	SSBN625	Newport News	64 02	90 11	
USS DANIEL WEBSTER	SSBN626	Electric Boat (Groton)	64 04	90 08	Retained as submarine moored training ship.
USS JAMES MADISON*	SSBN627	Newport News	64 07	92 11	
USS TECUMSEH*	SSBN628	Electric Boat (Groton)	64 05	93 07	
USS DANIEL BOONE*	SSBN629	Mare Island	64 04	94 02	
USS JOHN C. CALHOUN*	SSBN630	Newport News	64 09	94 03	

Name	Designation	Shipbuilder	Start-up (yr mo)	Shutdown (yr mo)	Comments
USS ULYSSES S. GRANT*	SSBN631	Electric Boat (Groton)	64 07	92 06	
USS VON STEUBEN	SSBN632	Newport News	64 09	94 02	
USS CASIMIR PULASKI*	SSBN633	Electric Boat (Groton)	64 08	94 03	
USS STONEWALL JACKSON*	SSBN634	Mare Island	64 08	95 02	
USS SAM RAYBURN	SSBN635	Newport News	64 12	89 07	Retained as submarine moored training ship.
USS NATHANAEL GREENE	SSBN636	Portsmouth	64 12	87 01	
USS STURGEON*	SSN637	Electric Boat (Groton)	67 03	94 08	
USS WHALE*	SSN638	GD (Quincy)	68 10	96 06	
USS TAUTOG	SSN639	Ingalls	68 08	97 03	
USS BENJAMIN FRANKLIN*	SSBN640	Electric Boat (Groton)	65 10	93 11	
USS SIMON BOLIVAR*	SSBN641	Newport News	65 10	95 02	
USS KAMEHAMEHA	SSN642	Mare Island	65 12	02 04	
USS GEORGE BANCROFT*	SSBN643	Electric Boat (Groton)	66 01	93 09	
USS LEWIS AND CLARK*	SSBN644	Newport News	65 12	92 08	
USS JAMES K. POLK	SSN645	Electric Boat (Groton)	66 04	99 07	
USS GRAYLING*	SSN646	Portsmouth	69 10	97 07	
USS POGY	SSN647	NYSC/Ingalls	71 05	99 06	
USS ASPRO	SSN648	Ingalls	69 02	95 03	
USS SUNFISH*	SSN649	GD (Quincy)	69 03	97 03	
USS PARGO*	SSN650	Electric Boat (Groton)	68 01	95 04	
USS QUEENFISH*	SSN651	Newport News	66 12	92 04	
USS PUFFER*	SSN652	Ingalls	69 08	96 07	
USS RAY	SSN653	Newport News	67 04	93 03	
USS GEORGE C. MARSHALL*	SSBN654	Newport News	66 04	92 09	
USS HENRY L. STIMSON*	SSBN655	Electric Boat (Groton)	66 08	93 05	
USS GEORGE WASHINGTON CARVER*	SSBN656	Newport News	66 06	93 03	
USS FRANCIS SCOTT KEY*	SSBN657	Electric Boat (Groton)	66 12	93 09	
USS MARIANO G. VALLEJO*	SSBN658	Mare Island	66 12	95 03	
USS WILL ROGERS*	SSBN659	Electric Boat (Groton)	67 04	93 04	
USS SAND LANCE	SSN660	Portsmouth	71 09	98 08	
USS LAPON	SSN661	Newport News	67 12	92 08	
USS GURNARD*	SSN662	Mare Island	68 12	95 04	
USS HAMMERHEAD*	SSN663	Newport News	68 06	95 04	
USS SEA DEVIL*	SSN664	Newport News	69 01	91 10	
USS GUITARRO*	SSN665	Mare Island	72 09	92 05	
USS HAWKBILL	SSN666	Mare Island	71 02	00 03	
USS BERGALL*	SSN667	Electric Boat (Groton)	69 06	96 06	
USS SPADEFISH*	SSN668	Newport News	69 08	97 04	
USS SEA HORSE*	SSN669	Electric Boat (Groton)	69 09	95 08	
USS FINBACK*	SSN670	Newport News	70 02	97 03	
USS PINTADO	SSN672	Mare Island	71 09	98 02	
USS FLYING FISH*	SSN673	Electric Boat (Groton)	70 04	96 05	

Name	Designation	Shipbuilder	Start-up (yr mo)	Shutdown (yr mo)	Comments
USS TREPANG	SSN674	Electric Boat (Groton)	70 08	99 06	
USS BLUEFISH	SSN675	Electric Boat (Groton)	71 01	96 05	
USS BILLFISH	SSN676	Electric Boat (Groton)	71 03	99 07	
USS DRUM	SSN677	Mare Island	72 04	95 10	
USS ARCHERFISH	SSN678	Electric Boat (Groton)	71 12	98 03	
USS SILVERSIDES	SSN679	Electric Boat (Groton)	72 05	94 07	
USS WILLIAM H. BATES	SSN680	Ingalls	73 05	00 02	
USS BATFISH	SSN681	Electric Boat (Groton)	72 09	99 03	
USS TUNNY	SSN682	Ingalls	74 01	98 03	
USS CAVALLA	SSN684	Electric Boat (Groton)	73 02	98 03	
USS GLENARD P. LIPSCOMB*	SSN685	Electric Boat (Groton)	74 12	90 07	
USS L. MENDELL RIVERS	SSN686	Newport News	75 02	01 05	
USS RICHARD B. RUSSELL	SSN687	Newport News	75 08	94 06	
USS BATON ROUGE*	SSN689	Newport News	77 06	95 01	
USS OMAHA	SSN692	Electric Boat (Groton)	78 03	95 10	
USS CINCINNATI	SSN693	Newport News	78 05	96 07	
USS GROTON	SSN694	Electric Boat (Groton)	78 07	97 11	
USS BIRMINGHAM	SSN695	Newport News	79 12	97 12	
USS NEW YORK CITY	SSN696	Electric Boat (Groton)	79 01	97 04	
USS INDIANAPOLIS	SSN697	Electric Boat (Groton)	80 01	98 12	
USS PHOENIX	SSN702	Electric Boat (Groton)	81 12	98 07	
USS BOSTON	SSN703	Electric Boat (Groton)	82 01	99 11	
USS BALTIMORE	SSN704	Electric Boat (Groton)	82 07	98 07	
USS ATLANTA	SSN712	Newport News	82 03	99 12	
USS LONG BEACH (2 reactors)	CGN9	Bethlehem	61 09	95 05	
USS BAINBRIDGE (2 reactors)*	CGN25	Bethlehem	62 10	96 09	
USS TRUXTUN (2 reactors)*	CGN35	NYSC	67 05	95 09	
USS CALIFORNIA (2 reactors)	CGN36	Newport News	74 02	99 07	
USS SOUTH CAROLINA (2 reactors)	CGN37	Newport News	75 01	99 07	
USS VIRGINIA (2 reactors)	CGN38	Newport News	76 09	94 11	
USS TEXAS (2 reactors)	CGN39	Newport News	77 09	93 07	
USS MISSISSIPPI (2 reactors)	CGN40	Newport News	78 08	97 07	
USS ARKANSAS (2 reactors)	CGN41	Newport News	80 10	98 07	
NS SAVANNAH (Maritime Administration) [50-238] [#]		NYSC	59 00	71 00	Designed by B&W, this PWR delivered a maximum shaft horsepower of 22,000 HP.

* The defueled reactor compartment has been removed and placed in a government burial ground.

[#] NRC Docket number

2. Remote Installations

Shutdown

Reactors in the Army Power Program are designated to reflect mobility characteristics, power range, development sequence, and field sequence. The first capital letter indicates mobility characteristics: S (stationary operation), not designed for subsequent relocation; P (portable), semi-mobile, stationary operation, capable of being dismantled and reassembled for use in successive locations; and M (mobile), capable of being moved intact, or virtually intact, for use in successive locations. The second capital letter indicates the power range as measured by design capacity for continuous operation: L (low) 100 to 1000 kW(e); M (medium), 1000 to 10,000 kW(e); and H (high), 10,000 kW(e) or more. Arabic numerals indicate order in which plants having the same mobility and power characteristics are initiated. If not followed by an additional letter, the designation indicates a prototype or pilot plant. The last capital letter (when present) indicates the alphabetical order in which field plants of a specific type are initiated.

Name (all owned by DOE)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Portable Medium Power Plant, No. 1.	PM-1	Martin	PWR	1,000	9,370	62 00	68 00	
Portable Medium Power Plant, No. 2A.	PM-2A	Alco	PWR	1,560	10,000	60 00	63 00	The PM-2A was shut down 7/9/63 and dismantled during 4/64 to 6/64. The reactor vessel was then used by INEEL for NDT (nil ductility transition temperature) investigations of materials that had been subjected to long-term irradiation. Defects were sequentially introduced into the vessel wall during a series of tests involving pressure and temperature conditions which exceeded the range permitted in operating nuclear power plants. The final test on 11/18/66 resulted in a brittle fracture under conditions even more severe than those that had been previously predicted to cause failure. The test program confirmed laboratory data on the adequacy of reactor-operating limitations to prevent brittle fracture of a pressure vessel.
Portable Medium Power Plant, No. 3A.	PM-3A	Martin	PWR	1,500	9,510	62 00	73 00	The Navy made the determination to shut down the PM-3A due to shield water leakage found during routine inspection in 1972. It was determined that cost of a full inspection would be a burden, therefore operation was terminated and the plant removed from Antarctica.
Stationary Medium Power Plant No. 1.	SM-1	Alco	PWR	1,855	10,000	57 00	73 00	

Name (all owned by DOE)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Stationary Medium Power Plant No. 1A.	SM-1A	Alco	PWR	1,650	20,200	62 00	72 00	The Army made the determination to shut down the SM-1A because the plant's demonstration and R&D missions had been successfully completed and because of the ready availability of cheaper conventional power at the site.
STURGIS Floating Nuclear Power Plant	MH-1A	Martin	PWR	10,000	45,000	67 00	76 00	The MH-1A was installed in the STURGIS (formerly the Liberty Ship CHARLES H. CUGLE) at Mobile, AL. Acceptance testing was performed at Fort Belvoir, VA, 4/67 to 6/27/67. In late 7/68 the plant was deployed to Gatun Lake, Panama Canal Zone, and began producing power to the Panama Canal power grid on 10/5/68. The MH-1A is no longer available for service.

3. Experimental Reactors and Prototypes

Operable

Name (Regulatory Agency)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Modifications and Additions to Reactor Facility (DOE)	MARF	Lockheed Martin (Formerly GE)	PWR			76 00		
Trident Prototype, (DOE)	S8G	Lockheed Martin (Formerly GE)	PWR			78 00		

Shutdown

Name (Owner)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Aircraft Reactor Experiment (DOE)	ARE	ORNL	Molten salt		1,500	54 00	54 00	

Name (Owner)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Destroyer Reactor Prototype (DOE)	D1G	Lockheed Martin (Formerly GE)	PWR			62 00	96 00	
Experimental Propulsion Test Reactor (DOE)	TORY IIA	LLNL	Air cooled		150,000	61 00	61 00	
Experimental Propulsion Test Reactor (DOE)	TORY IIC	LLNL	Air cooled		600,000	64 00	64 00	The TORY IIC was successfully tested at full design power during 5/64. Subsequent to cancellation of the Pluto program 7/1/64, the reactor was placed in the Pluto disassembly building at NST for storage. In 1974 the reactor was transferred to the NERVA disassembly area for disassembly.
Gas Cooled Reactor Experiment (DOE)	GCRE	AGN	Gas cooled, light water moderated		2,200	60 00	62 00	No electricity was produced.
Heat Transfer Reactor Experiment No. 1 (DOE)	HTRE-1	ANPD	Air cooled		20,000	56 00	57 00	
Heat Transfer Reactor Experiment No. 2 (DOE)	HTRE-2	ANPD	Air cooled		14,000	57 00	61 00	
Heat Transfer Reactor Experiment No. 3 (DOE)	HTRE-3	ANPD	Air cooled		32,000	58 00	61 00	
Large Ship Reactor Prototype [2 reactors] (DOE)	A1W	West.	PWR			58 00	94 00	
Mobile Low Power Plant No. 1 (DOE)	ML-1	AGN	Gas cooled, light water moderated	300	3,300	61 00	65 00	
Small Submarine Reactor Prototype (DOE)	S1C	GE	PWR			59 00	93 00	
Stationary Low Power Plant No. 1 (DOE)	SL-1	ANL	BWR	300	2,200	58 00	61 00	
Submarine Intermediate Reactor Mark A (DOE)	S1G	GE				55 00	57 00	
Submarine Advanced Reactor Prototype (DOE)	S3G	GE	PWR			58 00	91 00	
Natural Circulation Test Plant (DOE)	S5G	West.	PWR			65 00	95 00	

Name (Owner)	Designation	Principal Nuclear Contractor	Type	Power Capacity net kW(e)	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comment
Submarine Thermal Reactor Facility (DOE)	S1W	West.	PWR			53 00	89 10	

4. Research and Test Reactors

Operable

Name (owner) [docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)		Comments
Armed Forces Radiobiology Research Institute, DNA (DOD). Regulated by NRC. [50-170]	AFRRI	GA	TRIGA-Mk F	1,100	62 06		
Army Pulse Radiation Facility, Test and Evaluation Command (USA)	APRF	UNC	Bare, fast, prompt burst	10	68 07		
Fast Burst Reactor Facility, Test and Evaluation Command (USA)	FBRF	Kaman	Bare, fast, prompt burst	10	64 08		

Shutdown

Name (owner) [docket number]	Designation	Principal Nuclear Contractor	Type	Power Authorized kW(t)	Start-up (yr mo)	Shutdown (yr mo)	Comments
Aerospace Systems Test Reactor (USAF)	ASTR	Convair	LWR	10,000	54 00	71 00	Defueled in 1971; decommissioning began in 1973 and was completed in 1974.
Air Force Nuclear Engineering Center (USAF)	AFNEC	Allis-Chalmers	PWR	10,000	65 00	70 06	Core consisted of highly enriched uranium, MTR-type flat plat fuel elements.
Army Materials Research Reactor (USA). Regulated by NRC.	AMRR	BAC	Pool	5,000	60 00	70 00	Army Materials and Mechanics Research Center. License terminated 10/5/93.
Diamond Ordnance Radiation Facility (USA)	DORF	GA	TRIGA-Mk F	250	61 00	77 00	Harry Diamond Laboratories.
Ground Test Reactor (USAF)	GTR	Convair	Pool	10,000	53 00	73 00	Decommissioning began in 1973 and was completed in 1974
Naval Research Reactor (USN). Regulated by NRC. [50-4]	NRR	NRL	Pool	1,000	56 00	70 00	License terminated 3/18/71.
Nuclear Effects Reactor (DOE)	Super KUKLA	LLNL	Prompt burst		64 00	79 00	Standby fuel in storage at ORNL.
Nuclear Engineering Test Reactor (USAF)	NETR	Maxon-AC	Tank	10,000	65 00	70 00	
Thermal Test Reactor No. 1 (DOE)	TTR-1	KAPL	Graphite	10	51 00	83 00	
Walter Reed Research Reactor (USA). Regulated by NRC. [50-135]	WRRR	AI	Homogeneous	50	62 00	70 00	Walter Reed Army Institute of Research. License terminated 7/26/72.

PART V CRITICAL ASSEMBLIES

1. Civilian

Operable

Facility (Regulatory Agency) [Docket number]	Designation	Abbreviation	No. of Cells	No. of Control Panels or Rooms	Start-up (yr mo)		Comment
Advanced Test Reactor Critical Facility (DOE)	ATRC	ATRC	1	1	64 00		ATR physics, core-loading and core-design measurements.
Los Alamos National Laboratory (DOE)	Big Ten	LANL, Kiva II			72 00		U(10)-metal cylinder in thick metal reflector. Defueled.
Los Alamos National Laboratory (DOE)	Comet	LANL, Kiva II			52 00		Critical-configuration safety and neutronic tests.
Los Alamos National Laboratory (DOE)	Flattop	LANL, Kiva II	1	1	57 00		Spherical metal cores in thick metal reflector.
Los Alamos National Laboratory (DOE)	Godiva-IV	LANL, Kiva III			67 00		Fast neutron irradiation, pulse capability.
Los Alamos National Laboratory (DOE)	Honeycomb	LANL, Kiva I			56 00		Flexible split table assembly. Defueled.
Los Alamos National Laboratory (DOE)	Mars	LANL, Kiva I			74 00		Vertical table assembly machine.
Los Alamos National Laboratory (DOE)	Planet	LANL, Kiva II			84 00		Vertical table assembly.
Los Alamos National Laboratory (DOE)	SHEBA	LANL, Kiva I	2	1	80 00		New upgraded version of SHEBA became operational on 12/92.
Los Alamos National Laboratory (DOE)	SKUA	LANL, Kiva III	1	1	78 01		Fast neutron irradiation, pulse capability.
Rensselaer Polytechnic Institute (NRC) [50-225]	RPI	Rensselaer	1	1	66 00		Critical experiment assembly.
Sandia National Laboratories (DOE)	Burnup Credit Critical Experiment (BUCCX)	SNL, SPR Facility	1	1	01 07		Water-moderated low-enriched UO ₂ fueled critical assembly to benchmark fission-product data.

Being Built/Planned

Facility (Regulatory Agency) [Docket number]	Designation	Abbreviation	No. of Cells	No. of Control Panels or Rooms	Start-up (yr mo)		Comment
Sandia National Laboratories (DOE)	7 Percent Critical Experiment (7uPCX)	SNL, SPR Facility	1	1	04 05		Water-moderated low-enriched UO ₂ fueled critical assembly to provide reactor physics benchmarks.

Shutdown

Facility (Regulatory Agency) [Docket number]	Designation	Abbreviation	No. of Cells	No. of Control Panels or Rooms	Start-up (yr mo)	Shutdown (yr mo)	Comment
Accelerator Pulsed Fast Critical Assembly (NRC) [50-253]	APFA-III				67 00	73 00	The APFA-III was previously operated as the KUKLA Prompt Critical Assembly at Lawrence Livermore National Laboratory at Livermore, CA. License terminated 8/10/73.
Bettis Atomic Power Laboratory (DOE)	LWBCC	Bettis	3	3	63 00	80 00	LWB physics.
Critical Facility-10, Lynchburg Research Center (NRC) [50-13]	SSRF	CX-10	2	1	77 00	88 02	Close storage of spent reactor fuel. License terminated 2/88.
Los Alamos National Laboratory (DOE)	Parka	LANL, Kiva III	3	3	63 00	85 00	Cold critical for instrumentation testing. Defueled.
Los Alamos National Laboratory (DOE)	Venus	LANL, Kiva I	1	1	76 00	88 00	Vertical table assembly machine.
Oak Ridge Critical Experiments Facility (DOE)	CEF	OR-CEF	1	1	50 00	92 00	Shut down—Defueled.
ORNL Pool Critical Assembly, BSF Pool (DOE)	PCA	ORNL-PCA	1	1	58 00	92 00	Shut down—Defueled.
PNNL Critical Mass Laboratory (DOE)	FEAS	PNNL-CML	1	1	76 00	90 00	The Critical Mass Laboratory was used to experiment with liquid plutonium solutions. It was shut down in 1990 and transferred to the surplus facilities program for decontamination and decommissioning.
PNNL Critical Mass Laboratory (DOE)	Horizontal	PNNL-CML	1	1	61 00	90 00	See FEAS reactor.
PNNL Critical Mass Laboratory (DOE)	RSTM	PNNL-CML	1	1	63 00	90 00	See FEAS reactor.
SNL Critical Assembly (DOE)	CX	Sandia			89 09	91 12	Space power neutronics; shutdown.
United Nuclear Corporation, Development Division (NRC) [50-290]	PTF	UNC	4	3	67 00	72 00	Proff test facility. License 50-290 terminated 6/25/74. Material license (SNM-871) terminated 7/14/75.
Zero Power Physics Reactor (DOE)	ZPPR	ANL	1	1	69 00	94 09	In standby condition.
Zero Power Reactor No. 6 (DOE)	ZPR-6	ANL	2	2	63 00	82 07	Basic fast reactor studies and mock-up for LMFBR.

Facility (Regulatory Agency) [Docket number]	Designation	Abbreviation	No. of Cells	No. of Control Panels or Rooms	Start-up (yr mo)	Shutdown (yr mo)	Comment
Zero Power Reactor No. 9 (DOE)	ZPR-9	ANL	2	2	67 00	82 00	Basic fast reactor studies and mock-up for LMFBR. Zero-power experiments of historical interest previously the Argonne High Flux Research Reactor.

2. Military

Shutdown

Facility (Regulatory Agency)	Designation	Abbreviation	No. of Cells	No. of Control Panels or Rooms	Start-up (yr mo)	Shutdown (yr mo)	Comment
Bettis Atomic Power Laboratory (DOE)	HTTF	Bettis			59 00	84 00	Surface-ship physics.
Bettis Atomic Power Laboratory (DOE)	SS-CF	Bettis			57 00	76 00	Surface-ship physics.
Knolls Atomic Power Laboratory (DOE)	FCPE	KAPL	2	1	70 00	95 00	Full core physics experiment.
Knolls Atomic Power Laboratory (DOE)	FPR	KAPL			56 00	75 00	Flexible critical experiments.
Knolls Atomic Power Laboratory (DOE)	PTR	KAPL			58 00	76 00	High-temperature, high-pressure physics and mock-up.
Lockheed Aircraft Co., Critical Facility for RER (NRC)	CERF	Lockheed	1	1	58 00	60 09	License terminated 9/1/60.
Nuclear Safety Facility, Rocky Flats Plant (DOE)	Vertical/ Split Table	RFP-NSF			65 00	92 00	Critical-configuration safety tests. Fission material removed from Building B886. Decommissioned and will be destroyed. Mission closed.
Nuclear Safety Facility, Rocky Flats Plant (DOE)	Water Reflector Tank	RFP-NSF			65 00	92 00	Critical-configuration safety tests. Fission material removed from Building B886. Decommissioned and will be destroyed. Mission closed.
Nuclear Safety Facility, Rocky Flats Plant (DOE)	Horizontal/ Split Table	RFP-NSF			65 00		Critical-configuration safety tests. Fission material removed from Building B886. Decommissioned and will be destroyed. Mission closed.
Nuclear Safety Facility, Rocky Flats Plant (DOE)	Solution Base	RFP-NSF	1	1	65 00		Critical-configuration safety tests. Fission material removed from Building B886. Decommissioned and will be destroyed. Mission closed.

Appendix 1

Appendix 1

COMMERCIAL NUCLEAR POWER REACTORS IN THE UNITED STATES AS OF JAN 2003

LOCATION	PLANT NAME	LICENSEE	STARTUP (yr mo)
ALABAMA			
Decatur	Browns Ferry Nuclear Power Station, Unit 1	Tennessee Valley Authority	73 08*
Decatur	Browns Ferry Nuclear Power Station, Unit 2	Tennessee Valley Authority	74 07
Decatur	Browns Ferry Nuclear Power Station, Unit 3	Tennessee Valley Authority	76 08
Dothan	Joseph M. Farley Nuclear Plant, Unit 1	Southern Nuclear Operating Co.	77 08
Dothan	Joseph M. Farley Nuclear Plant, Unit 2	Southern Nuclear Operating Co.	81 05
ARIZONA			
Wintersburg	Palo Verde Nuclear Generating Station, Unit 1	Arizona Public Service Co.	85 05
Wintersburg	Palo Verde Nuclear Generating Station, Unit 2	Arizona Public Service Co.	86 04
Wintersburg	Palo Verde Nuclear Generating Station, Unit 3	Arizona Public Service Co.	87 10
ARKANSAS			
Russellville	Arkansas Nuclear One, Unit 1	Entergy Operations, Inc.	74 08
Russellville	Arkansas Nuclear One, Unit 2	Entergy Operations, Inc.	78 12
CALIFORNIA			
Diablo Canyon	Diablo Canyon Nuclear Power Plant, Unit 1	Pacific Gas & Electric Co.	84 04
Diablo Canyon	Diablo Canyon Nuclear Power Plant, Unit 2	Pacific Gas & Electric Co.	85 08
San Clemente	San Onofre Nuclear Generating Station, Unit 2	Southern California Edison Co.	82 07
San Clemente	San Onofre Nuclear Generating Station, Unit 3	Southern California Edison Co.	83 08
CONNECTICUT			
Waterford	Millstone Nuclear Power Station, Unit 2	Dominion Nuclear Energy	75 10
Waterford	Millstone Nuclear Power Station, Unit 3	Dominion Nuclear Energy	86 01

FLORIDA

Florida City	Turkey Point Plant, Unit 3	Florida Power & Light Co.	72 10
Florida City	Turkey Point Plant, Unit 4	Florida Power & Light Co.	73 06
Fort Pierce	St. Lucie Plant, Unit 1	Florida Power & Light Co.	76 04
Fort Pierce	St. Lucie Plant, Unit 2	Florida Power & Light Co.	83 06
Red Level	Crystal River Nuclear Plant, Unit 3	Progress Energy, Inc.	77 01

GEORGIA

Baxley	Edwin I. Hatch Nuclear Plant, Unit 1	Southern Nuclear Operating Co.	74 09
Baxley	Edwin I. Hatch Nuclear Plant, Unit 2	Southern Nuclear Operating Co.	78 07
Waynesboro	Alvin W. Vogtle Nuclear Plant, Unit 1	Southern Nuclear Operating Co.	87 03
Waynesboro	Alvin W. Vogtle Nuclear Plant, Unit 2	Southern Nuclear Operating Co.	89 03

ILLINOIS

Braidwood	Braidwood Station, Unit 1	Exelon Generation Co., LLC	87 05
Braidwood	Braidwood Station, Unit 2	Exelon Generation Co., LLC	88 03
Bryon	Bryon Station, Unit 1	Exelon Generation Co., LLC	85 02
Bryon	Bryon Station, Unit 2	Exelon Generation Co., LLC	87 01
Clinton	Clinton Power Station, Unit 1	AmerGen Energy Co.	87 04
Cordova	Quad-Cities Station, Unit 1	Exelon Generation Co., LLC	71 10
Cordova	Quad-Cities Station, Unit 2	Exelon Generation Co., LLC	72 04
Morris	Dresden Nuclear Power Station, Unit 2	Exelon Generation Co., LLC	70 01
Morris	Dresden Nuclear Power Station, Unit 3	Exelon Generation Co., LLC	71 01
Seneca	La Salle County Station, Unit 1	Exelon Generation Co., LLC	82 06
Seneca	La Salle County Station, Unit 2	Exelon Generation Co., LLC	84 03

IOWA

Palo	Duane Arnold Energy Center, Unit 1	Nuclear Management Co., LLC	74 03
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KANSAS

Burlington	Wolf Creek Generating Station	Wolf Creek Nuclear Operating Corp.	85 05
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LOUISIANA

St. Francisville	River Bend Station, Unit 1	Entergy Operations, Inc.	85 10
Taft	Waterford Generation Station, Unit 3	Entergy Operations, Inc.	85 03

MARYLAND

Lusby	Calvert Cliffs Nuclear Power Plant, Unit 1	Constellation Energy Group	74 10
Lusby	Calvert Cliffs Nuclear Power Plant, Unit 2	Constellation Energy Group	76 11

MASSACHUSETTS

Plymouth	Pilgrim Nuclear Power Station, Unit 1	Entergy Operations, Inc.	72 06
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MICHIGAN

Bridgman	Donald C. Cook Nuclear Power Plant, Unit 1	Indiana/Michigan Power Co.	75 01
Bridgman	Donald C. Cook Nuclear Power Plant, Unit 2	Indiana/Michigan Power Co.	78 03
Newport	Enrico Fermi Atomic Power Plant, Unit 2	Detroit Edison Co.	85 06
South Haven	Palisades Nuclear Plant, Unit 1	Nuclear Management Co. LLC	71 05

MINNESOTA

Monticello	Monticello Nuclear Generating Plant	Nuclear Management Co. LLC	70 12
Red Wing	Prairie Island Nuclear Generating Plant, Unit 1	Nuclear Management Co. LLC	73 12
Red Wing	Prairie Island Nuclear Generating Plant, Unit 2	Nuclear Management Co. LLC	74 12

MISSISSIPPI

Port Gibson	Grand Gulf Nuclear Station, Unit 1	Entergy Operations, Inc.	82 08
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MISSOURI

Fulton	Callaway Plant, Unit 1	AmerenUE Corp.	84 10
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NEBRASKA

Brownville	Cooper Nuclear Station	Nebraska Public Power District	74 02
Fort Calhoun	Fort Calhoun Station, Unit 1	Omaha Public Power District	73 08

NEW HAMPSHIRE

Seabrook	Seabrook Nuclear Station, Unit 1	North Atlantic Energy Service Corp.	
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NEW JERSEY

Salem	Hope Creek Nuclear Generating Station, Unit 1	PSEG Nuclear, LLC	86 06
Salem	Salem Nuclear Generating Station, Unit 1	PSEG Nuclear, LLC	76 12
Salem	Salem Nuclear Generating Station, Unit 2	PSEG Nuclear, LLC	80 08
Toms River	Oyster Creek Nuclear Power Plant, Unit 1	Exelon Generation Co., LLC	69 05

NEW YORK

Buchanan	Indian Point Station, Unit 2	Entergy Nuclear Operations, Inc.	73 05
Buchanan	Indian Point Station, Unit 3	Entergy Nuclear Operations, Inc.	76 04
Ontario	Robert E. Ginna Nuclear Power Plant, Unit 1	Rochester Gas & Electric Corp.	69 11
Scriba	James A. FitzPatrick Nuclear Power Plant	Entergy Nuclear Operations, Inc.	74 11
Scriba	Nine Mile Point Nuclear Station, Unit 1	Nine Mile Point Nuclear Station, LLC	69 09
Scriba	Nine Mile Point Nuclear Station, Unit 2	Nine Mile Point Nuclear Station, LLC	87 05

NORTH CAROLINA

Bonsai	Shearon Harris Nuclear Power Plant, Unit 1	Progress Energy, Inc.	87 01
Cowans Ford Dam	William B. McGuire Nuclear Station, Unit 1	Duke Energy Corporation, LLC	81 08
Cowans Ford Dam	William B. McGuire Nuclear Station, Unit 2	Duke Energy Corporation, LLC	83 05
Southport	Brunswick Steam Electric Plant, Unit 1	Progress Energy, Inc.	76 10
Southport	Brunswick Steam Electric Plant, Unit 2	Progress Energy, Inc.	75 03

OHIO

Oak Harbor	Davis-Besse Nuclear Power Station, Unit 1	FirstEnergy Nuclear Operating Co.	77 08
Perry	Perry Nuclear Power Plant, Unit 1	FirstEnergy Nuclear Operating Co.	86 06

PENNSYLVANIA

Berwick	Susquehanna Steam Electric Station, Unit 1	PPL Susquehanna, LLC	82 09
Berwick	Susquehanna Steam Electric Station, Unit 2	PPL Susquehanna, LLC	84 05
Lancaster	Peach Bottom Atomic Power Station, Unit 2	Exelon Generation Co., LLC	73 09
Lancaster	Peach Bottom Atomic Power Station, Unit 3	Exelon Generation Co., LLC	74 08
Middletown	Three Mile Island Nuclear Station, Unit 1	Exelon Generation Co., LLC	74 06
Pottstown	Limerick Generating Station, Unit 1	Exelon Generation Co., LLC	84 12
Pottstown	Limerick Generating Station, Unit 2	Exelon Generation Co., LLC	89 08
Shippingport	Beaver Valley Power Station, Unit 1	FirstEnergy Nuclear Operating Co.	76 05
Shippingport	Beaver Valley Power Station, Unit 2	FirstEnergy Nuclear Operating Co.	87 08

SOUTH CAROLINA

Hartsville	H.B. Robinson Plant, Unit 2	Progress Energy, Inc.	70 09
Jenkinsville	Virgil C. Summer Nuclear Station, Unit 1	South Carolina Electric & Gas Co.	82 10
Lake Wylie	Catawba Nuclear Station, Unit 1	Duke Energy Corporation, LLC	85 01
Lake Wylie	Catawba Nuclear Station, Unit 2	Duke Energy Corporation, LLC	86 05
Seneca	Oconee Nuclear Station, Unit 1	Duke Energy Corporation, LLC	73 04
Seneca	Oconee Nuclear Station, Unit 2	Duke Energy Corporation, LLC	73 11
Seneca	Oconee Nuclear Station, Unit 3	Duke Energy Corporation, LLC	74 09

TENNESSEE

Daisy	Sequoyah Nuclear Plant, Unit 1	Tennessee Valley Authority	80 07
Daisy	Sequoyah Nuclear Plant, Unit 2	Tennessee Valley Authority	81 11
Spring City	Watts Bar Nuclear Plant, Unit 1	Tennessee Valley Authority	96 02

TEXAS

Bay City	South Texas Project, Unit 1	STP Nuclear Operating Co.	88 03
Bay City	South Texas Project, Unit 2	STP Nuclear Operating Co.	89 03
Glen Rose	Comanche Peak Steam Electric Station, Unit 1	TXU Generation Co.	90 04
Glen Rose	Comanche Peak Steam Electric Station, Unit 1	TXU Generation Co.	93 03

VERMONT			
Vernon	Vermont Yankee Nuclear Power Station	Entergy Nuclear Operations	72 03
VIRGINIA			
Gravel Neck	Surry Power Station, Unit 1	Virginia Electric & Power Co.	72 07
Gravel Neck	Surry Power Station, Unit 2	Virginia Electric & Power Co.	73 03
Mineral	North Anna Power Station, Unit 1	Virginia Electric & Power Co.	78 04
Mineral	North Anna Power Station, Unit 2	Virginia Electric & Power Co.	80 06
WASHINGTON			
Richland	Columbia Generating Station	Energy Northwest	84 01
WISCONSIN			
Carlton	Kewaunee Nuclear Power Plant	Nuclear Management Co., LLC	74 03
Two Creeks	Point Beach Nuclear Plant, Unit 1	Nuclear Management Co., LLC	70 11
Two Creeks	Point Beach Nuclear Plant, Unit 2	Nuclear Management Co., LLC	72 05

* This plant is currently shut down, following a fire in 1985 and will require significant work to rebuild. Restart will require NRC Approval.

Appendix 2

Appendix 2

STATISTICAL SUMMARY OF NUCLEAR REACTORS AS OF JAN 2003

	Operating	Being Built or Planned	Shutdown	Totals
CIVILIAN REACTORS				
Power Reactors	104	3	28	135
Experimental Power Reactors			22	22
University Reactors	27		41	68
Research and Test Reactors	12		83	95
SPACE POWER REACTORS				
Space Nuclear Auxiliary Power			11	11
Space Propulsion			21	21
PRODUCTION REACTORS				
Materials Production			14	14
Process Development			5	5
SEAGOING AND MILITARY REACTORS				
Propulsion	83	7	129	219
Remote Installations			6	6
Experimental Reactors and Prototypes	2		16	18
Research and Test Reactors	3		10	13
Totals	231	10	386	627

There are no Power Reactors actively being built. However, TVA has not formally cancelled three reactors on which construction has been halted.

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