

**STATUS SUMMARIES
FOR
REACTORS UNDERGOING DECOMMISSIONING**

BIG ROCK POINT

Licensee: Consumers Energy Company
License No.: DPR-6
Status : Permanently shutdown
OL Issuance Date: 5/1/1964
Shutdown Date: 8/30/97
Project Manager: Jim Shepherd

DECOMMISSIONING STATUS

The plant was permanently shut down on August 29, 1997. Fuel was transferred to the spent fuel pool by September 20, 1997. On September 19, 1997, the Consumers Energy Company (CE) submitted a post shutdown activities report (PSDAR) that identified decommissioning activities commencing in September 1997, and concluding in September 2002. The licensee selected the DECON option. On March 26, 1998, CE submitted a revised PSDAR that showed conclusion of decommissioning about August 2005. Dry fuel storage will continue through about 2012, depending on when the U.S. Department of Energy (DOE) accepts fuel. CE is currently decommissioning the site in accordance with the PSDAR.

As of March 27, 2003, all fuel was transferred to the independent spent fuel storage installation (ISFSI). The spent fuel pool will be cleaned and drained.

On April 1, 2003, CE submitted its license termination plan (LTP). By this plan, CE will release those parts of the site not needed for ISFSI operation at the completion of the remediation project. After fuel is removed from the site, the ISFSI will be decommissioned and the license terminated. The reactor head was shipped to Envirocare on May 28, 2003.

CURRENT ISSUES

Contaminants at the site include uranium and decay products, and fission products. Ground water contamination is non-uniformly distributed at the site because of a dry, silty clay layer that underlies only the south part of the site. Boundaries between the geologic units are only approximated because of limited subsurface data; additional data may be necessary to determine the extent of contamination. Reported concentrations in ground water are low, generally less than the minimum detectable activity (MDA) except for tritium. Soil contamination is also generally below MDA.

There is some public interest about the decommissioning of this site. The primary parties are the State of Michigan and the City Councils of surrounding areas. CE has an effective public outreach program and open communication with these parties.

ESTIMATED DATE FOR LICENSE TERMINATION 2012

DRESDEN - Unit 1

Licensee: Exelon Generation Company
License No.: DPR-2
Status : Permanently shutdown
OL Issuance Date: 9/28/1959
Shutdown Date: 10/78
Project Manager: John Hickman

DECOMMISSIONING STATUS

The plant shut down in October 1978 and is currently in SAFSTOR. The decommissioning plan (DP) was approved in September 1993. No significant dismantlement activities are underway. Asbestos removal, isolation of Unit 1 from Units 2 and 3, and general radiation cleanup activities are complete or in progress. The licensee will dismantle Unit 1 at the same time as the other two units onsite, which is expected no earlier than 2011. The licensee submitted an updated PSDAR on June 1, 1998. The PSDAR public meeting was held on July 23, 1998.

CURRENT ISSUES

The licensee is using the Holtec HISTAR 100 dual purpose cask and the HISTORM concrete overpack to store spent fuel. Casks have been loaded with Unit 1 spent fuel from the Unit 2 spent fuel pool, along with Unit 2 spent fuel, to address the Unit 2 spent fuel storage issue. In January 2002, the licensee completed transferring fuel from the Unit 1 spent fuel pool to dry storage.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

FERMI - Unit 1

Licensee: Detroit Edison
License No.:
Status: Active/Decommissioning
OL Issuance Date: 12/65
Shutdown Date: 10/72
Project Manager: Ted Smith

DECOMMISSIONING STATUS

The licensee's initial stage of decommissioning is complete, and bulk sodium has been removed from the site. There is no spent fuel onsite and the facility is currently in SAFSTOR condition. The licensee is currently performing occupational safety enhancement activities; concentrating in non-radioactive areas, such as asbestos removal, and trace sodium cleanup. The trace sodium remediation effort is about 50 percent complete. The facility will be dismantled under the provisions of 10 CFR 50.59. The licensee plans to submit an LTP in 2004.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION 2007

HADDAM NECK - CONNECTICUT YANKEE

Licensee: Connecticut Yankee Atomic Power Company
License No.: DPR-61
Status: Permanently shutdown
OL Issuance Date 12/27/74
Shutdown Date: 7/22/96
Project manager: Ted Smith

DECOMMISSIONING STATUS

Steam generators, RCPs and the pressurizer have been removed from containment and reactor internals segmentation is complete. Preparations are underway for reactor vessel shipment in September 2003. The turbine building is being dismantled. There are 1016 spent fuel assemblies and 18 canisters of greater than Class C waste stored in the spent fuel pool. The licensee plans to begin operation of an ISFSI in 2003.

Connecticut Yankee Atomic Power Company (CY) submitted its LTP in July 2000. The staff completed its review of the LTP and issued its safety evaluation on November 25, 2002.

The Spent Fuel Project Office (SFPO) will be receiving an amendment request from NAC, the dry cask vendor, to incorporate several changes to the cask drying process, based on lessons learned from other licensee loading operations. The amendments will allow faster drying of the cask after removal from the pool, and will reduce occupational exposures.

CURRENT ISSUES

The staff completed its review of the LTP and issued its safety evaluation on November 25, 2002. The LTP is being challenged by the Citizens Awareness Network. A hearing was held during the week of March 10, 2003, and follow on filings are ongoing.

The licensee recently announced that plans with AES Corporation (AES) to use part of the site for a natural gas-fired electric plant are on hold, citing economic conditions unfavorable to AES.

ESTIMATED DATE FOR LICENSE TERMINATION 2006

HUMBOLDT BAY

Licensee: Pacific Gas & Electric Co. (PG&E)
License No.: DPR-7
Status: Permanently shutdown
OL Issuance Date 08/28/62
Shutdown Date: 07/76
Project Manager: Bill Huffman

DECOMMISSIONING STATUS

The plant was shut down in July 1976 and has been in SAFSTOR ever since. A DP was approved in July 1988. Subsequent to the 1996 decommissioning rule, the licensee converted the decommissioning plan into its Defueled Safety Analysis Report (DSAR) which is now updated every two years. A PSDAR was issued by the licensee in February 1998.

CURRENT ISSUES

The licensee is planning to submit an ISFSI application towards the end of 2003. The ISFSI dry storage cask will be unique due to the short length of the Humboldt fuel assemblies. Furthermore, the casks will be stored below-grade to accommodate regional seismicity issues, security concerns, and site boundary dose limits. Review and approval of the ISFSI application is estimated to take 2 years. If the ISFSI application is approved, a decision will then be made on whether to proceed with ISFSI construction. In conjunction with the ISFSI decision, PG&E is involved in a study to determine if the schedule for completion of the Unit 3 site decommissioning should be accelerated to a milestone much earlier than the currently published 2015 date.

Decommissioning work at Humboldt Bay involves recently completed asbestos removal, currently in progress systems and structures radiological characterization, and near term future work on reactor and internals activation analysis, low-level waste (LLW) management plan development, developing of a work, cost, and scheduling process, and the developing of a facilities and staffing plan. This work phase will likely continue until a decision is made on early decommissioning.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

INDIAN POINT - Unit 1

Licensee: Entergy Nuclear Indian Point 2, LLC
Operation: Entergy Nuclear Operations, Inc (ENO)
License No.: Provisional License DPR-5
Status: Permanently shutdown
OL Issuance Date: 3/26/1962
Shutdown Date: 10/74
Project Manager: John Minns

DECOMMISSIONING STATUS

The plant was shutdown in October 1974. Some decommissioning work associated with spent fuel storage was performed from 1974 through 1978. The order approving SAFSTOR was issued in January 1996. The PSDAR public meeting was held on January 20, 1999. The licensee plans to decommission Unit 1 with Unit 2, which is currently in operation. The licensee does not plan to begin active decontamination and decommissioning until 2013, when the IP2 license expires.

The estimated date of transfer from the Office of Nuclear Reactor Regulation (NRR) project management to the Office of Nuclear Material Safety and Safeguards (NMSS) project management has not been determined yet.

CURRENT ISSUES

The staff is issuing an amendment to effectively coordinate Indian Point Unit 1 and 2 programs. The amendment consists of changes to the Technical Specifications (TSs) to facilitate the Unit 2 transition to the Improved Technical Specifications (ITS). Units 1 and 2 are physically contiguous and share a number of systems and facilities as well as a common operating organization. The TSs recognize this commonality as well as the intended use of the Unit 1 facilities to support Unit 2 until retirement of that unit. The TS changes will simplify the administration of the Indian Point site, because: future changes to the organization and to the assignment of responsibilities will require only a single license amendment; the effectiveness of the ENO organization to ensure compliance with both the Unit 1 and Unit 2 licenses is not affected; and, the clarifications that remain will clearly establish the responsibility of the Unit 2 licensed Operations Department personnel for the operation of Unit 1.

The amendment also proposed changes to the requirements of the "Order to Authorize Decommissioning and Amendment No. 45 to License No. DPR-5 for Indian Point Unit No. 1," dated January 31, 1996," (the Order) to ensure compliance with the current requirements of 10 CFR 50.59, "Changes, tests, and experiments," and 10 CFR 50.82, "Termination of license." In addition, the amendment proposed changing the expiration date of Provisional Operating License No. DPR-5 for IP1 to the current expiration date for the Facility Operating License No. DPR-26 for Unit 2.

Unit 1 plans to move all spent fuel assemblies to the west spent fuel pool to minimize leakage.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

LACROSSE

Licensee: Dairyland Power Corporation
License No: DPR-45
Status: Permanently shutdown
OL Issuance Date: 7/3/1967
Shutdown Date: 04/30/87
Project Manager: Bill Huffman

DECOMMISSIONING STATUS

The plant was shut down on April 30, 1987. The SAFSTOR DP was approved August 7, 1991. The DP is considered the PSDAR. The PSDAR public meeting was held on May 13, 1998. Limited and gradual dismantlement is currently underway. The owner is a member of the Private Fuel Storage LLC seeking a license to build and operate an independent spent fuel storage installation on the reservation of the Skull Valley Band of Goshute Indians west of Salt Lake City, Utah. The owner has no immediate plans for an onsite ISFSI.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION

TBD

MAINE YANKEE

Licensee: Maine Yankee Atomic Power Company (MYAPC)
License No.: DPR-36
Status: Permanently shutdown
OL Issuance Date: 6/29/1973
Shutdown Date: 12/06/96
Project Manager: John Buckley

DECOMMISSIONING STATUS

The plant was shutdown on December 6, 1996. Certification of permanent cessation of operations was submitted on August 7, 1997. The PSDAR was submitted on August 27, 1997. The LTP was submitted on January 13, 2000. Based in part on hearing requests by the State of Maine and Friends of the Coast Opposing Nuclear Pollution, the licensee committed to develop a revised LTP and submitted the revised LTP on June 1 and August 13, 2001. Project management responsibility was transferred from NRR to NMSS on January 31, 2003. The LTP was approved on February 28, 2003. Decommissioning is in progress.

CURRENT ISSUES

The licensee is using the NAC International Universal Multi-Purpose Canister System (UMS) dry cask spent fuel storage system. Spent fuel transfer (1432 fuel assemblies in 60 casks) from the spent fuel pool to the onsite ISFSI began in August 2002 and is expected to be complete by November 2003.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

MILLSTONE - Unit 1

Licensee: Northeast Nuclear Energy (NNECO)
License No:
Status: Permanently shutdown
OL Issuance Date: 10/07/70
Shutdown Date: 11/04/95
Project Manager: Drew Holland

DECOMMISSIONING STATUS

Unit 1 was shut down on November 4, 1995, and transfer of the spent fuel to the pool was completed on November 19, 1995. On July 17, 1998, the licensee decided to cease operations. Certifications per 10 CFR Part 50.82(a) were submitted July 21, 1998. The owner's current plan is to leave the plant in SAFSTOR until the Unit 2 license expires. The owner submitted its required PSDAR on June 14, 1999, and has chosen a combination of the DECON and SAFSTOR options. NRC conducted public meetings in Waterford, CT, on the decommissioning process on February 9, 1999, and on the PSDAR on August 25, 1999. Owner responsibility for the Millstone site was transferred from Northeast Utilities to Dominion Nuclear Connecticut on March 31, 2001. Unit 1 is currently in a cold, dark, and dry condition except for the spent fuel pool "island."

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION TBD

NUCLEAR SHIP SAVANNAH

Licensee: U.S. Maritime Administration
License No: NS-1
Status: Permanently shutdown
OL Issuance Date: 8/5/1965
Shutdown Date: 11/70
Project Manager: Al Adams

DECOMMISSIONING STATUS

The reactor is currently in SAFSTOR. All fuel has been removed from the ship. The Nuclear Ship (NS) Savannah is moored in the Maritime Administration Reserve Fleet in the James River, Virginia. As needed, the NS Savannah is towed into dry dock for hull maintenance. Because the reactor is portable, the location of decommissioning has not been determined. There are no plans to transfer NRR project management to NMSS project management.

CURRENT ISSUES

The licensee is exploring the possibility of obtaining funding for total decommissioning and disposal of the NS Savannah.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

PEACH BOTTOM - Unit 1

Licensee: Excelon Generation Company, LLC
License No.: DPR-12
Status: Permanently shutdown
OL Issuance Date: 1/24/66
Shutdown Date: 10/74
Project Manager: Kristina Banovac

DECOMMISSIONING STATUS

The facility has been permanently shutdown since October 31, 1974 and is currently in a SAFSTOR condition. The licensee will maintain its facility in SAFSTOR until 2010 and submits its LTP in 2012. Spent fuel has been removed from the site. The PSDAR meeting was held on June 29, 1998. Final decommissioning is not expected until 2015 when Units 2 and 3 are scheduled to shut down.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION 2014

RANCHO SECO

Licensee: Sacramento Municipal Utility District
License No.: DPR-54
Status: Permanently shutdown
OL Issuance Date: 8/16/1974
Shutdown Date: 06/89
Project Manager: John Hickman

DECOMMISSIONING STATUS

The plant was shut down in June 1989. The SAFSTOR DP was approved in March 1995. The licensee revised its DP to use an incremental dismantlement approach. Currently, the licensee is dismantling the secondary side of the plant. Wastes generated during decommissioning will be shipped to Envirocare. In July 1999, the owner decided to continue dismantlement activities with the goal of completing the decommissioning by 2008. On October 4, 1991, the owner submitted a site-specific Part 72 ISFSI application using the VECTRA NUHOMS-MP187 dual purpose cask design. The license was granted on June 30, 2000. The owner has transferred all of the spent fuel from the pool to the on-site ISFSI.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION 2008

SAN ONOFRE - Unit 1

Licensee: Southern California Edison (SCE)
License No.: DPR-13
Status: Permanently shutdown
OL Issuance Date: 3/27/1967
Shutdown Date: 11/92
Project Manager: Bill Huffman

DECOMMISSIONING STATUS

The plant was shut down in November 1992. The licensee submitted an updated PSDAR on December 15, 1998. The facility transitioned from SAFSTOR in 1999 and is now in DECON. Significant dismantlement is currently underway. The licensee has completed demolition of the Emergency Diesel Generator building, the Control Building, and Administration Building. Dismantlement and removal of the electrical generator and main turbine is also complete. The licensee has completed reactor pressure vessel internal segmentation and cutup. The reactor internals abrasive cutting media has been sent offsite for disposal. The top of the Containment Sphere Enclosure Building has been dismantled and most of the large reactor system components have been removed including the reactor pressure vessel, pressurizer and steam generators. The steam generators and pressurizer have been shipped to disposal. Arrangements for reactor pressure vessel disposal are still ongoing. The control room has been relocated and Unit 1 has established its spent fuel pool island concept with the rest of the Unit 1 facility cold and dark. Major security modifications to isolate Units 2 and 3 from the Unit 1 are complete.

ISFSI construction is underway. The ISFSI application has been approved and a certificate of compliance was issued in January 2003. The transfer of Unit 1 spent fuel being stored in the Unit 3 spent fuel pool is expected to take place during the fall of 2003.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION TBD

SAXTON

Licensees: GPU Nuclear and Saxton Nuclear Experimental Corp.
License No.: DPR-4
Status: Permanently shutdown
OL Issuance Date: 11/15/1961
Shutdown Date: 05/72
Project Manager: Al Adams

DECOMMISSIONING STATUS

The plant was shut down in May 1972, and in February 1975, was placed in SAFSTOR until 1986 when phased dismantlement began with removal of support buildings, contaminated soil, and some material in the containment. The owner submitted a DP in 1996, which became the PSDAR. All spent fuel has been removed from the site. The NRC approved an amendment request in 1998 to allow dismantlement under 10 CFR 50.59. The reactor vessel with internals, steam generator, and pressurizer have been shipped to Barnwell for disposal. The owner submitted a LTP in February 1999, but had to resubmit the plan in February 2000 to provide sufficient information for an acceptance review. NRC approved the LTP on March 28, 2003. The owner expects to complete decommissioning so the license can be terminated in the fourth quarter of 2003 and the site restored by the first quarter of 2004.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION 2003

THREE MILE ISLAND - Unit 2

Licensee: GPU Nuclear
License No.: DPR-73
Status: Permanently shutdown
OL Issuance Date: 2/8/1978
Shutdown Date: 03/79
Project Manager: Bill Huffman

DECOMMISSIONING STATUS

The operational accident occurred in March 1979. The plant defueling was completed in April 1990. Post Defueling Monitored Storage was approved in 1993. There is no significant dismantlement underway. The plant shares equipment with the operating TMI - Unit 1. TMI-1 was sold to Amergen in 1999. GPU Nuclear retains the license for TMI-2 and contract to Amergen for maintenance and surveillance activities. Both units are expected to be decommissioned in 2014. The spent fuel was removed except for some debris in the nuclear steam supply system. The removed fuel is currently in storage at Idaho National Engineering Laboratory. DOE has taken title and possession of the fuel debris.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION TBD

TROJAN

Licensee: Portland General Electric
License No.: NPF-1
Status: Permanently shutdown
OL Issuance Date: 11/21/1975
Shutdown Date: 11/9/92
Project Manager: John Buckley

DECOMMISSIONING STATUS

The plant was shutdown in November 1992. The DECON DP was approved in April 1996. The plant is currently undergoing dismantlement under 10 CFR 50.59. The steam generators and reactor vessel have been shipped to Hanford LLW site. The licensee was granted a site-specific Part 72 license for an onsite ISFSI in March 1999. The licensee submitted a proposed LTP in August of 1999. A license amendment approving the LTP was issued in February 2001.

The licensee began spent fuel transfer to the ISFSI in December 2002, and finished fuel transfer in August 2003.

CURRENT ISSUES

The staff has met with the licensee to discuss unresolved inspection items related to the licensee's implementation of the approved LTP. Specifically, the staff had concerns regarding downgrading the classification of survey units that had been approved in the LTP at a higher initial classification. The staff performed extensive confirmatory surveys to evaluate these areas, and is presently evaluating the data.

ESTIMATED DATE FOR LICENSE TERMINATION TBD

VALLECITOS BOILING WATER REACTOR

Licensee: General Electric (GE)
License No.: DPR-1
Status: Permanently shutdown
OL Issuance Date: 5/14/1956
Project Manager: Marvin Mendonca

DECOMMISSIONING STATUS

The plant is currently in SAFSTOR. GE has a self-guarantee instrument. The spent fuel has been removed from the site. There are no plans to transfer NRR project management to NMSS project management.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION TBD

YANKEE ROWE

Licensee: Yankee Atomic
License No.: DPR-3
Status: Permanently shutdown
OL Issuance Date: 12/24/1963
Shutdown Date: 10/01/91
Project Manager: John Hickman

DECOMMISSIONING STATUS

The plant was permanently shut down on October 1, 1991. The DECON DP was approved in February 1995, and the plant is undergoing dismantlement. The steam generators were shipped to the Barnwell, North Carolina low level waste facility in November 1993. The reactor vessel was shipped to Barnwell in April 1997. The owner has removed all of the primary systems, secondary side components, and switch yard equipment from the site. The plant is about 80 percent dismantled. The containment and other major structures remain. The owner has completed construction of an onsite ISFSI. An LTP was submitted in May 1997, and a public meeting was held to discuss the LTP in January 1998. A public hearing was requested on the LTP but was canceled after the owner withdrew the plan in May 1999, to consider the Multi-Agency Radiation Survey and Site Investigation Manual approach. The licensee intends to resubmit the LTP in 2003. The owner transferred all of the fuel from the spent fuel pool to the on-site ISFSI.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION 2005

ZION - Units 1 & 2

Licensee: Exelon Generation Company, LLC
License No.: DPR-39/48
OL Issuance Date: 10/19/1973, 11/14/1973
Shutdown Date: 02/13/98
Project Manager: John Hickman

DECOMMISSIONING STATUS

Zion Units 1 and 2 were permanently shut down on February 13, 1998. The fuel was transferred to the spent fuel pool, and the owner submitted the certification of fuel transfer on March 9, 1998. A public meeting was held on June 1, 1998, to inform the public of the shutdown plans. The owner has converted the turbine-generators into synchronous condensers and have isolated the spent fuel pool within a fuel building "nuclear island." The plant has been placed in SAFSTOR, where it will remain until about 2013 when the decommissioning trust fund will be sufficient to conduct DECON activities. The owner submitted the PSDAR, site-specific cost estimate, and fuel management plan on February 14, 2000.

CURRENT ISSUES

None

ESTIMATED DATE FOR LICENSE TERMINATION TBD