

AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

10 CFR 50.54(bb)

October 29, 2004
2130-04-20250

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Oyster Creek Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Submittal of Spent Fuel Management Plan

- References:
1. Letter from J. A. Benjamin (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, "Submittal of Preliminary Decommissioning Cost Estimate," dated April 14, 2004
 2. Letter from J. A. Benjamin (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, "Submittal of Preliminary Decommissioning Cost Estimate," dated June 24, 2004

The purpose of this letter is to submit a Spent Fuel Management Plan in accordance with 10 CFR 50.54(bb) for Oyster Creek Generating Station (OCGS). As discussed in 10 CFR 50.54(bb), a licensee shall "submit written notification to the Commission for its review and preliminary approval of the program by which the licensee intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository." Accordingly, attached is the Spent Fuel Management Plan for your review and preliminary approval.

As discussed in the Reference 2 letter, AmerGen will be seeking license renewal for OCGS in that the facility operating license for OCGS currently expires on April 9, 2009.

A copy of this notification will be maintained until the expiration of the OCGS operating license. Additionally, OCGS will notify the U. S. Nuclear Regulatory Commission, in accordance with 10 CFR 50.54(bb), of any significant changes in the proposed Spent Fuel Management Plan described in Attachment 1.

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If you have any questions or require additional information, please contact Mr. Tom Loomis at 610-765-5510.

Very truly yours,



Jeffrey A. Benjamin
Vice President - Licensing & Regulatory Affairs
AmerGen Energy Company, LLC

Attachment 1 – Spent Fuel Management Plan for Oyster Creek Generating Station

cc: S. J. Collins, USNRC, Administrator, Region I
R. J. Summers, USNRC Senior Resident Inspector, OCGS
P. S. Tam, USNRC, Senior Project Manager
File No. 03035

ATTACHMENT 1

SPENT FUEL MANAGEMENT PLAN

FOR

OYSTER CREEK GENERATING STATION

Background

In the Reference 1 letter, a preliminary decommissioning cost estimate was provided in accordance with 10 CFR 50.75(f)(2) for Oyster Creek Generating Station (OCGS). That preliminary cost estimate evaluated three (3) options for decommissioning OCGS. In the Reference 2 letter, AmerGen Energy Company, LLC (AmerGen) provided additional information concerning the choice of a decommissioning option. As stated in the Reference 2 letter, AmerGen will be seeking license renewal for OCGS in that the facility operating license for OCGS currently expires on April 9, 2009. We have not made a final determination of the decommissioning approach for OCGS. However, as discussed with the NRC in a conference call on June 7, 2004, for the purpose of demonstrating the adequacy of funding to meet regulatory requirements, the DECON decommissioning option has been selected and evaluated based on the current license expiration date. Accordingly, this Spent Fuel Management Plan is also based on the DECON analysis and premised on the current license term, although the discussion below includes all three decommissioning options. We reserve the right to choose the ultimate decommissioning option in accordance with our business needs, recognizing that we need to assure the chosen option meets NRC requirements for decommissioning funding.

Spent Fuel Management Strategy

The NRC requires (as discussed in 10 CFR 50.54(bb)) that licensees establish a program to manage and provide funding for the caretaking of all irradiated fuel at the reactor site until title of the fuel is transferred to the U. S. Department of Energy (DOE). Interim storage of the fuel, until the DOE has completed the transfer, will be in the storage pool and/or an Independent Spent Fuel Storage Installation (ISFSI) located on the Oyster Creek site.

The ISFSI, operated independent of power reactor operations, will be expanded to support decommissioning operations. For the DECON and SAFSTOR scenarios, the ISFSI facility is sized to accommodate the inventory of spent fuel residing in the plant's spent fuel pool at the conclusion of the required cooling period. Once emptied of fuel, the reactor building can be either decontaminated and dismantled or prepared for long-term storage. In the Delayed DECON scenario, the existing ISFSI and spent fuel pool would remain operational and used for the interim storage of the fuel until such time that the DOE can complete the transfer.

The DOE's generator allocation/receipt schedules are based upon the oldest fuel receiving the highest priority. Given this scenario and an anticipated rate of transfer, spent fuel is projected to remain at the site for approximately 19 years after the cessation of operations at the end of the current license term. Consequently, costs are included within the estimate noted below for the long-term caretaking of the spent fuel at the Oyster Creek site through the year 2027.

The total inventory of assemblies that will require handling during decommissioning is based upon several assumptions. The pickup of commercial fuel is assumed to begin in the year 2015 and will proceed on an oldest fuel first basis. The maximum rate at which the fuel is removed from the commercial sites is based upon an annual capacity at the geologic repository of 3,000 metric tons of uranium (MTU). Any delay in the startup of the repository or decrease in the rate of acceptance will correspondingly prolong the transfer process and result in the fuel remaining at the site longer.

In all three decommissioning scenarios, the ISFSI will continue to operate until such time that the transfer of spent fuel to the DOE can be completed. Assuming that the DOE commences repository operation in 2015, fuel is projected to be removed from the Oyster Creek site by the end of the year 2027. In the Delayed DECON scenario, the ISFSI is used to store fuel transferred during plant operations. Operation and maintenance costs for the storage facilities (the ISFSI and the pool for the Delayed DECON scenario) are included within the estimate below and address the cost for staffing the facilities, maintenance of necessary operational requirements as well as security, insurance, and licensing fees. The estimate includes the costs to purchase, load, and transfer the fuel storage canisters to the ISFSI.

A discussion of site-specific considerations for the management of spent fuel at OCGS under each decommissioning scenario may be found in Section 3.4 of the attachment to Reference 1.

In the event that OCGS does cease operations in 2009, OCGS will continue to comply with existing NRC licensing requirements, including the operation and maintenance of the systems and structures needed to support continued operation of the OCGS spent fuel pool and ISFSI, as necessary, under the decommissioning scenario ultimately selected. In addition, OCGS will also comply with applicable license termination requirements in accordance with 10 CFR 50.82 with respect to plant shutdown and post-shutdown activities including seeking such NRC approvals and on such schedules as necessary to satisfy these requirements consistent with the continued storage of irradiated fuel.

Cost Estimate and Funding For Spent Fuel Management Based on the DECON Decommissioning Option

As of August 30, 2004, the OCGS decommissioning trust fund balance was \$530.9 million. The projected amount necessary for radiological decommissioning costs is \$422.7 million for the DECON scenario (assuming a 2% real rate of return through the decommissioning period). To the extent that the trust fund balance exceeds costs required for radiological decommissioning, trust fund monies, in conjunction with AmerGen operating revenues, will be used to pay for spent fuel management.

Annual costs for spent fuel management range from approximately \$6 to \$10 million (refer to Tables 3.1, 3.2, and 3.3 from the Reference 1 attachment), depending upon the decommissioning scenario selected.

References:

1. Letter from J. A. Benjamin (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated April 14, 2004
2. Letter from J. A. Benjamin (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated June 24, 2004