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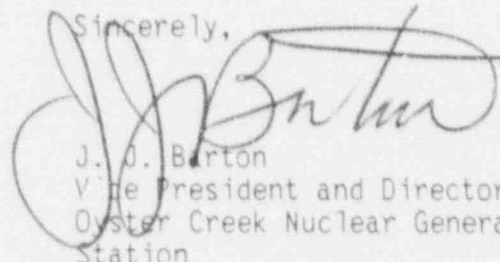
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Oyster Creek Nuclear Generating Station (OCNGS)
Operating License No. DPR-16
Docket No. 50-219
Response to Request for Additional Information (RAI)
License Amendment Request No. 199

In response to the NRC staff's request for additional information, dated April 29, 1992, Enclosure I of this letter addresses Item 3 of the referenced RAI.

Sincerely,



J. O. Barton
Vice President and Director
Oyster Creek Nuclear Generating
Station

DJD/JJB/amk

Enclosure

cc: Administrator, Region I
NRC Resident Inspector
Mr. Alex Dromerick, Jr., Project Manager

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GPU Nuclear Corporation is a subsidiary of General Public Utilities Corporation

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ENCLOSURE IQUESTION #3

In response to Item 6 of 10 CFR 51.52, GPU Nuclear Corporation (GPUN) indicated that OCNGS shipped approximately 12,200 cubic feet of solid waste compared to the value of 11,250 cubic feet estimated in Section 5.7.4 of the Final Environmental Statement (FES) dated 1974. Section 5.7.4 also estimated that about 2700 Ci of radioactivity would be shipped offsite each year. A review of the 1990 and 1991 Semi-Annual Radiological Environmental Reports indicate that 5785.4 Ci of radioactivity was shipped offsite in 1990 and that 17,413 cubic feet of waste was shipped offsite in 1991. Provide the average annual volumes and radioactivity of wastes shipped during the period of 1974 through 1991 and discuss the significance of exceeding the estimated values discussed in Section 5.7.4 of the FES. Additionally, GPUN needs to discuss the effect of the increase of these shipments over the proposed operating time.

The average annual volumes and radioactivity of waste shipped during the 1974 through 1991 is tabulated below. The 1992 through 2009 values are estimated.

YEAR	CURIES	VOLUME (ft ³)
1974	1570	42,756
1975	2810	34,982
1976	1280	42,403
1977	137,273*	61,840
1978	1149	54,558
1979	1339	39,965
1980	1322	71,767
1981	421	62,827
1982	4666	35,519
1983	561	35,371
1984	43,950*	49,345
1985	630	16,315
1986	795	20,906
1987	36,658*	8334
1988	6298*	7096

YEAR	CURIES	VOLUME (ft ³)
1989	232,793*	14,837
1990	1130*	11,386
1991	1390	17,406
1992	62,000*	13,000
1993	1510	13,000
1994	938	12,000
1995	1510	13,000
1996	938	12,000
1997	1510	13,000
1998	938	12,000
1999	1510	13,000
2000	938	12,000
2001	1510	13,000
2002	938	12,000
2003	1510	13,000
2004	938	12,000
2005	1510	13,000
2006	938	12,000
2007	1510	13,000
2008	938	12,000
2009	1510	13,000

* Denotes irradiated hardware shipments

NOTE: 1993 - 2009 assumes the following:

- 1510 ci and 13,000 (Ft.³) for outage year.
- 938 ci and 12,000 (FT.³) for operating year.
- No Irradiated Hardware shipments after 1992.
- Current on site and off site waste processing capabilities remain the same.
- Current radwaste volume reduction capabilities, e.g.,: incineration, decontamination/recycling and super compaction remain the same.

A review of the 1990-1 and 1990-2 Semi-Annual Effluent Reports indicate that an error was made in reporting the total curies shipped during the second half of 1990.

It appears that in the second half of 1990 the total cubic foot column value for all four (4) categories, 4931.2 (Ft.³), and the total curies shipped off site to SEG for Dry Active Waste, 278.25 Ci, was used as the total and reported in the executive summary for the second half of 1990 as 5785.4 Ci. The total curies shipped off site in 1990 was actually 1130.23 Ci, as correctly documented in Tables 5 and 6 of these reports.

It can be seen that with the exception of years which include irradiated hardware shipments, the projected average curie level of radwaste shipped from 1974 through 2009 (1345 Ci) would be well below that assumed in the 1974 FES, even with higher volumes of solid radwastes shipped. As stated in the Semi-Annual Effluent Release Report, these shipments are similar to those of nuclear plants of comparable type, age and size. It is expected that the curie content of solid radwaste generated over the proposed operating time extension will remain below that previously evaluated.

Filter Sludge and Concentrated Liquid Wastes are processed into Steel or High Integrity Containers (HIC's) and mixed with cement. Bead Resins are processed into High Integrity Containers (HIC's) and dewatered. WASH-1238, "Environmental Survey of Transportation of Radioactive Materials to and from Nuclear Power Plants", December, 1972, which provided the data supporting Table 5.3 in the 1974 FES for OCNGS, assumed solidification and transport of waste in steel drums only. Filter Sludge, Concentrated Liquid Waste and Bead Resins at OCNGS are shipped directly to a licensed disposal facility in a licensed NRC Type A or B cask. Dry Active Waste (DAW) is processed into strong tight containers (STC) and shipped off site to licensed waste reprocessors or directly to a licensed disposal facility. The average expected volume of Radioactive Waste and curies generated from 1991 to 2009 is 12,810 ft.³ and 1,289 curies. WASH-1238, Section VI, Table 8 assumed a value of 13.22 Ci/ft³ for solid radwaste. As shown above, OCNGS solid waste radioactivity levels are projected to be well below this value.

The projected radwaste volume does not represent a significant increase in the value assumed in the 1974 FES, and the projected curies generated over the remaining period of plant operations including the proposed period of extension is well within the value assumed in the 1974 FES. Shipping containers currently used at OCNGS are a significantly higher integrity design than that assumed in the FES evaluation. The NRC Environmental Assessment in support of the Full Term Operating License, dated April 10, 1986, reexamined the environmental impacts initially presented in the 1974 FES. This evaluation determined that there were no new impacts that differ significantly from those evaluated in the FES. Based on the above, the conclusion remains valid for the extended period of operation.

As requested in follow-up discussions, the collective annual exposures to OCNGS plant workers in terms of whole body dose were 310R for 1990 and 1184R for 1991. The 1991 whole body dose potentially received by an assumed maximum exposed individual from OCNGS liquid and airborne effluents was conservatively calculated to be about 7.08 E-3 millirem total or only 2.83 E-2 percent of the OCNGS Technical Specification Limit (OCNGS REMP Report for 1991).