

January 25, 1993

Docket No. 50-219

Mr. John J. Barton  
Vice President and Director  
GPU Nuclear Corporation  
Oyster Creek Nuclear Generating Station  
Post Office Box 388  
Forked River, New Jersey 08731

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Dear Mr. Barton:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -  
OYSTER CREEK NUCLEAR GENERATING STATION (TAC NO. M81848)

Enclosed is our Environmental Assessment which relates to your letter dated October 4, 1991, as supplemented December 11, 1991, December 24, 1991, May 19, 1992, June 3, 1992, June 24, 1992 and November 5, 1992, regarding your application to extend the expiration date of Facility Operating License No. DPR-16 from December 15, 2004 to April 9, 2009.

We have also enclosed a Notice of Issuance of Environmental Assessment and Finding of No Significant Impact. This notice is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

Alexander W. Dromerick, Senior Project Manager  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Environmental Assessment
- 2. Notice

cc w/enclosures:  
See next page

OFFICE	LA:PDI-4	PM:PDI-4	PRPB	D:PDI-4	OGC
NAME	SNorris	ADromerick:cn	LCunningham	JStolz	EHoller
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Mr. John J. Barton  
GPU Nuclear Corporation

Oyster Creek Nuclear  
Generating Station

cc:

Ernest L. Blake, Jr., Esquire  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street, NW.  
Washington, DC 20037

Resident Inspector  
c/o U.S. Nuclear Regulatory Commission  
Post Office Box 445  
Forked River, New Jersey 08731

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Kent Tosch, Chief  
New Jersey Department of  
Environmental Protection  
Bureau of Nuclear Engineering  
CN 415  
Trenton, New Jersey 08625

BWR Licensing Manager  
GPU Nuclear Corporation  
1 Upper Pond Road  
Parsippany, New Jersey 07054

Mayor  
Lacey Township  
818 West Lacey Road  
Forked River, New Jersey 08731

Licensing Manager  
Oyster Creek Nuclear Generating Station  
Mail Stop: Site Emergency Bldg.  
Post Office Box 388  
Forked River, New Jersey 08731

ENVIRONMENTAL ASSESSMENT  
BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATING TO THE CHANGE IN THE EXPIRATION DATE OF  
FACILITY OPERATING LICENSE NO. DPR-16  
GPU NUCLEAR CORPORATION  
OYSTER CREEK NUCLEAR GENERATING STATION  
DOCKET NO. 50-219  
DATE: JANUARY 25, 1993

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## 1.0 INTRODUCTION

The U.S. Nuclear Regulatory Commission is considering the issuance of a proposed amendment which would extend the expiration date of Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (OCNGS) from December 15, 2004 to April 9, 2009. OCNGS is operated by GPU Nuclear Corporation (GPUN, the licensee) and is located in Ocean County, New Jersey.

## 2.0 IDENTIFICATION OF THE PROPOSED ACTION

The currently licensed term is 40 years commencing with the issuance of the construction permit on December 15, 1964. Accounting for the time that was required for construction of the plant, this represents an effective operating license term of 35.66 years. The licensee's application of October 4, 1991, as supplemented December 11, 1991, December 24, 1991, May 19, 1992, June 3, 1992, June 24, 1992, and November 5, 1992, requests extension of the expiration date of the operating license to April 9, 2009, which represents 40 years from the date of issuance of Provisional Operating License No. DPR-16 which was superseded in its entirety by full-term Facility Operating License No. DPR-16 issued on July 2, 1991.

## 3.0 THE NEED FOR THE PROPOSED ACTION

The granting of the proposed license amendment would allow the licensee to operate for 4.33 additional years beyond the currently-approved license expiration date. Without issuance of the proposed license amendment, the plant would shut down at the end of the currently-approved license term.

## 4.0 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

In December 1974, the U.S. Atomic Energy Commission issued the "Final Environmental Statement Related to Operation of the Oyster Creek Nuclear Generating Station." This document was issued in support of the application for the conversion of Provisional Operating License No. DPR-16 to full-term Facility Operating License No. DPR-16. This document provides an evaluation of the environmental impacts associated with the plant operation. The NRC staff has reviewed the Final Environmental Statement (FES), the Environmental Assessment for the Oyster Creek Full Term Operating License issued April 10, 1986 and Supplement 1 to the Environmental Assessment for the Full Term Operating License issued June 19, 1991, and additional information provided by the licensee in its license amendment submittal, to determine the environmental impacts of operation of the OCNGS for 4.33 additional years.

### 4.1 Radiological Impacts

The staff has considered potential radiological impacts for the general public in residence and transient seasonal population in the vicinity of OCNGS. These impacts include potential accidents, normal radiological releases, routine radiological exposure to workers, and the impact on the uranium fuel cycle and the transportation of fuel and waste. These impacts are summarized in the following sections.

#### 4.1.1 General Public

In order to assess radiological impacts on the general public as a consequence of the proposed extended period of operation of OCNGS, population estimates set forth in the Final Environmental Statement (FES) were reexamined.

The OCNGS is located on the coastal pine barrens of New Jersey in Lacey and Ocean Townships, Ocean County. The site is approximately 35 miles north of Atlantic City, New Jersey and 45 miles east of Philadelphia, Pennsylvania. Several small residential communities are located approximately 9.5 miles north of the site. Local beaches and bays attract a large transient seasonal population. The original licensing basis utilized the 1970 census data which showed a combined resident and seasonal population of 97,315 in the 0-10 mile distribution and projected a population distribution of 277,877 for 2010. Recent population estimates based on the results of a 1990 population study, which is the most current available, indicated a combined peak summer resident and transient population of 198,254 within 10 miles of the plant. The population growth rate experienced in Ocean County during the 1970s and early 1980s is expected to decline in the next two decades. The original FES projected an overall increase of 186 percent which is expected to remain a bounding projection. GPU Nuclear has updated its population distribution and resulting Emergency Plan evacuation time estimates (ETE) on the basis of 1990 census data. This action ensures that population distribution changes are implemented in emergency planning requirements.

The results of the ETE study show that the peak summer population (198,254 people) within a 10-mile radius of the plant including transient population has increased 31 percent since 1980. The overall permanent population (96,718 people) has increased 40 percent since 1980. However, even with these substantial population increases the estimated evacuation time for everyone in the 10-mile zone in a worst case situation (peak summer season) increased by only 27 percent. In one quadrant, within a 5 mile range of the plant, the evacuation time actually decreased despite population increase since 1980. The evacuation times have been kept low due to improved emergency planning and coordination among the various state and municipal agencies and an improved road system, including wider roads and bridges.

The Code of Federal Regulations at 10 CFR 100.11 state that the population center distance must be at least one and one-third times the low population zone (LPZ) distance. The OCNGS LPZ is 0.75 miles. Thus, the population center distance, that is, nearest boundary of a densely populated center with more than 25,000 residents, would have to come within 1.0 mile of the reactor before NRC siting criteria would be exceeded. The FES, based on the 1970 census data, projected a resident and seasonal population of 4264 in 2010 within 1 mile of the plant. The present population center is 9.5 miles north of the site and it is unlikely that the population growth in the vicinity of the OCNGS site will challenge the 10 CFR Part 100 citing criteria.

The staff has assessed the public risks from reactor accidents per year of operation at other reactors of comparable design and power level. In all cases, the estimated risks of early fatalities and latent cancer fatalities per year of reactor operation have been small compared to the risks of many non-reactor type of accidents to which the public is typically exposed, and the natural incidence of fatal cancers. The annual risks associated with reactor accidents did not increase with longer periods of operation of the reactor. If similar risks were estimated for OCNGS, we could expect a similar conclusion. Further, as stated in the FES, the integrated exposure to the population within a 50-mile radius of OCNGS from each postulated accident would be much smaller than that from naturally occurring background radiation, including radon (i.e., about 0.220 Rem/year). When considered with the probability of occurrence, the annual potential radiation exposure from all the postulated accidents is a small fraction of exposure from natural background radiation.

Based on the above, the staff concludes that the proposed additional years of operation would not significantly increase the annual public risk from reactor accidents.

The staff, during its review of the OCNGS Full-Term Operating License, reviewed liquid and airborne effluents reported released at the OCNGS during the period of 1970 through 1989. Results of this review are presented in Supplement 1 to the Environmental Assessment for the Full-Term Operating License issued June 19, 1991.

Based on the assessment, the staff concluded that the conclusions of the Final Environmental Statement are still valid. In addition, a review of the 1990 and 1991 Radiological Monitoring Reports conservatively estimated the maximum dose potentially received by an assumed maximum exposed individual from the OCNGS liquid and airborne effluents for 1990 to be  $7.08 \text{ E-3}$  millirem total or only  $2.8\text{E-}2$  percent of the OCNGS Technical Specification limit and for 1991 to be  $8.74\text{-}3$  or only  $1.75\text{E-}3$  percent of the OCNGS Technical Specification limit. By comparison, a typical individual living in New Jersey area in 1990 and 1991 would be expected to receive an annual dose of approximately 220 mrem from natural causes including radon.

The lower observed levels in radioactive effluents from OCNGS result in a substantially lower radiological impact than assumed in the FES. Therefore, the staff concludes that the radiological impact due to liquid and airborne effluents from OCNGS is insignificant and is bounded by the FES. A similar comparison can be shown for direct radiation exposure (i.e., irradiation directly from facility components rather than effluents released from the reactor systems) to members of the public at the site boundary. Direct radiation from the turbine to an individual at the Highway 9 bridge over the discharge canal is undetectable. Thermoluminescent dosimeter (TLD) readings from the monitoring station closest to the bridge are representative of background radiation readings from various areas around the site. The effect of direct radiation from the turbine is not discernible at the bridge location.

Based on the above, the staff has concluded that the effect on the general public of continued plant operation through the year 2009 as a result of the license extension would not increase over that previously evaluated.

#### 4.1.2 Uranium Fuel Cycle

In addition to the impacts associated with the operation of the reactor, there are impacts associated with the uranium fuel cycle. The uranium fuel cycle consists of those facilities (e.g., uranium mines and mills, fuel fabrication plants, etc.) that are necessary to support the operation of the reactor. Various NRC reports describe the impacts associated with the uranium fuel cycle (e.g., NUREG-1064). These reports typically assume a 1000 MWe model plant with one initial core load and 29 annual refuelings (approximately one-third of the core is replaced during each refueling). Considering all environmental impacts associated with the uranium fuel cycle for such a plant, the staff has in the past concluded that both the dose commitments and health effects of these activities are very small when compared with the dose commitments and potential health effects to the U.S. population resulting from all natural background sources. These effects are summarized in 10 CFR 51.51. The incremental increase in fuel cycle impacts due to extending operation of OCNGS by 4 years and 4 months is, therefore, also very small.

#### 4.1.3 Occupational Exposures

OCNGS maintains an aggressive commitment to as low as is reasonably achievable (ALARA) exposures. Exposure goals are established for the station to minimize collective doses. All work receives a radiological review with a higher level of detail spent on all maintenance tasks and modifications projected to exceed 5 person-rem.

OCNGS has had high collective annual doses. It is projected that average annual collective exposures will decrease with the implementation of dose reduction programs such as the plant decontamination program, a hot spot reduction program, a cobalt reduction program and the performance of chemical decontamination of the Recirculation and Reactor Water Cleanup Systems as part of a continuing source term reduction program.

The material condition of the plant is being improved as demonstrated by plant performance during the last two operating cycles and the low annual collective dose of 310 person-rem during 1990. That dose was the lowest annual exposure since 1971. The 1991 dose exposure was 1180 person-rem. This increase was due to a refueling outage.

The long term doses at OCNGS are estimated by the licensee to average 650 person-rem per year until the end of operations. This is based on an operating cycle average dose of 400 person-rem and outage average doses of 750 person-rem, projected beyond Cycle 14.

It is likely that other ALARA improvements such as permanent shielding improvements, continuing dose reduction modifications, and the effects of the long term improvements being made will further reduce all collective doses during the period of the extension. During this period of extension approximately two more refueling outages would be expected based on 24-month cycles. Annually, GPUN provides person-rem exposure data during normal operating maintenance, repair and refueling activities for all personnel monitored by dosimetry.

The staff concludes that the licensee's dose assessment is acceptable, and that the licensee's radiation protection program is adequate to ensure that occupational radiation exposures for the additional years of plant operations will be in accordance with 10 CFR Part 20.

#### 4.1.4 Transportation of Fuel and Waste

The staff has reviewed the environmental impact attributable to the transportation of fuel and waste to and from the OCNGS site. With respect to the normal conditions of transport and possible accidents in transport, the NRC staff concludes that the environmental impacts are bounded by those identified in Table S-4, "Environmental Impact of Transportation of Fuel and Waste To and From One Light-Water-Cooled Nuclear Power Reactor," of 10 CFR 51.52. The bases for this conclusion are that: (1) Table S-4 is based on an annual refueling and an assumption of 60 spent-fuel shipments per reactor year. At the present time, the OCNGS reactor has completed a transition to a 24-month refueling cycle which would result in fewer than 60 spent fuel shipments per year, if fuel shipments were, in fact, being made. Reducing the number of fuel shipments would reduce the overall impacts related to population exposure and accidents discussed in Table S-4. (2) Table S-4 represents the contribution of such transportation to annual radiation dose per reactor year to exposed transportation workers and to the general public. Even if the spent fuel exceeds the average fuel irradiation level specified in 10 CFR 51.52(a)(3) (which is used as the bases for Table S-4) it will still be less than 60 gigawatt days per metric ton (GWD/MTU). The NRC has previously found (53 FR 6040, February 29, 1988) that the environmental impacts summarized in Table S-4 of 10 CFR 51.52 are conservative and bound the corresponding impacts for burnup levels up to 60 GWD/MTU. By comparison, the maximum burnup of OCNGS fuel to date has been approximately 34.7 GWD/MTU and the maximum expected burnup of future fuel assemblies is approximately 36.0 GWD/MTU. Therefore, the Table S-4 analyses are bounding for OCNGS. The radiation levels of transport fuel casks are limited by the Department of Transportation and are not dependent on fuel enrichment and/or irradiation levels. Therefore, the estimated doses to exposed individuals per reactor year will not increase over that specified in Table S-4.

With respect to solid waste, the average volumes and radioactivity of waste shipped during the period 1974 through 1991 is presented in Table 1. The 1992 through 2009 values are projected estimates.

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 (HICs) and mixed with cement. Bead Resins are processed into High Integrity Containers (HICs) 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.<sup>3</sup> and 1,289 curies. WASH-1238, Section VI, Table B assumed a value of 13.22 Ci/ft<sup>3</sup> 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.

The annual radiation dose to individuals would not be changed by the extended period of operation. Although some integral risk with respect to normal conditions of transportation and possible accidents in transport would be attributed to the additional years of operation, the integral risk would not be significant because the annual risk for such transportation is small.

TABLE I

AVERAGE ANNUAL VOLUMES AND RADIOACTIVITY SHIPPED DURING  
THE PERIOD 1974 THROUGH 2009

<u>YEAR</u>	<u>CURIES (Ci)</u>	<u>VOLUME (ft<sup>3</sup>)</u>
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
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:

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

## 4.2 Nonradiological

### 4.2.1 Terrestrial

Areas of interest included site erosion problems, specifically canal bank stabilization and areas disturbed during plant construction, and fogging and icing caused by the discharge canal. The 1986 Environmental Assessment (EA) for the Full-Term Operating License concluded that the canal banks were stabilized, that revegetation efforts of selected areas were underway and no complaints of fogging and icing in the vicinity of the U.S. Route 9 bridge over the discharge canal had been received. A subsequent NRC staff site visit on August 10, 1990, found the licensee's revegetation effort substantially completed. No monitoring of terrestrial impacts is required by the station Technical Specifications. The conclusions in the 1974 FES and the 1986 EA, with respect to terrestrial impacts, are still valid.

### 4.2.2 Aquatic

Specific areas of interest included impingement and entrainment, chemical discharges, and thermal discharge effects, including heat and cold shock, and the proliferation of marine wood boers. The 1986 EA for the Full-Term Operating License evaluated each of these areas and determined that the 1974 FES conclusions on the significance of these potential impacts remain valid. On March 4, 1992, the New Jersey Department of Environmental Protection and Energy issued for comment a report entitled "Technical Review and Evaluation of Thermal Effects Studies and Cooling Water Structure Demonstration of Impact for the Oyster Creek Nuclear Generating Station." The report concluded that continued operation of the OCNGS under current operating procedures, does not threaten the protection and propagation of balanced indigenous populations. Amendment 66 to POL No. DPR-16 for OCNGS, effective March 24, 1983, deleted aquatic monitoring programs at the station. Effluent limitations and water quality monitoring are imposed by the State of New Jersey. A draft renewal NJNPDES/DSW permit is scheduled for issuance in early 1993.

### 4.2.3 Conclusion

The conclusions on potential terrestrial and aquatic impacts given in the 1974 FES and reevaluated in the 1986 EA remain valid. Extension of the OCNGS operating license by 4 years and 4 months would not adversely affect the environment.

## 4.3 Economic Assessment

Operation of OCNGS beyond its current operating license period will provide financial benefit to the customers served by GPUN. The operation of OCNGS for an additional 4 years and 4 months would defer the need to design and construct an equivalent replacement facility. GPUN has evaluated the economics of continued operation of OCNGS through 2009 to that of a combined-cycle (oil/natural gas) facility replacing OCNGS as early as 1998. The

present value of net benefits to the customer would be in the range of \$200-\$400 million (1991 dollars) with continued operation of OCNGS. This includes incremental benefits for the 2004-2009 time period during which continued operation of OCNGS would reduce consumer rates in comparison to the combined-cycle alternative.

#### 4.4 Plant Design Changes

Many modifications and design changes have taken place at OCNGS since the FES was issued. Those that are safety related or important to safety or require a change to the Facility Operating License or Technical Specifications are submitted to the NRC for review and approval prior to implementation in accordance with 10 CFR Part 50. This review and approval process includes a determination of both radiological and nonradiological environmental effects of the proposed change. Changes that are determined to be outside the scope of those listed above may be implemented by the licensee without prior NRC approval; however, the licensee must have first completed a safety analysis with respect to the proposed change and retain a copy of this analysis on site for NRC inspection and audit. A description of the changes including a summary of the associated safety analysis is then submitted to the NRC annually. A complete detailed description of the changes and their impact on plant operations and procedures is also included where applicable in required annual updates of the Final Safety Analysis Report (FSAR). These annual submittals are reviewed by the staff to verify that the licensee has correctly determined that these changes did not require prior NRC review and approval. In general, these changes improve plant reliability and do not adversely impact the environment. All changes are conducted in accordance with approved procedures, current license requirements and Technical Specifications and the current NPDES/DSW permit. While it is recognized that the requested license extension will require further routine design changes and modifications similar in nature to those already conducted, it is not anticipated that these would have any adverse affect on the environment.

#### 5.0 ALTERNATIVES TO THE PROPOSED ACTION

The principal alternative to issuance of the proposed extension would be to deny the application. In this case, OCNGS would shut down upon expiration of the present operating license.

In Chapter X of the December 1974 FES, a cost-benefit analysis is presented for operation of OCNGS. Included in the analysis is comparison among various options for producing an equivalent electrical power capacity. Even considering significant changes in the economics of the alternatives, operation of OCNGS in its present plant configuration for an additional 4 years and 4 months would only require incremental yearly costs. These costs would be substantially less than the purchase of replacement power or the installation of new electrical generating capacity. Moreover, the overall cost per year of the facility would decrease since the large initial capital outlay would be averaged over a greater number of years. In summary, the cost-benefit advantage of OCNGS compared to alternative electrical power generating capacity improves with the extended plant lifetime.

## 6.0 ALTERNATIVE USE OF RESOURCES

This action does not involve the use of resources not previously considered in connection with the December 1974 FES.

## 7.0 AGENCIES AND PERSONS CONSULTED

In a letter dated November 27, 1991, the Bureau of Nuclear Engineering (BNE) New Jersey Department of Environmental Protection and Energy advised the NRC staff that BNE recommends that the change request be contingent on resolution of the following issues:

1. Drywell thinning due to corrosion
2. Hydrogen mitigation requirements of 10 CFR 50.44
3. Structured integrity of the cracked Core Spray System sparger; and
4. Assessment of the frequency of hazardous-material shipping on U.S. Route 9 and potentially the level of risk associated with the shipment.

In a letter dated December 19, 1991, the staff advised BNE that upon completion of our review, we will prepare and issue a safety evaluation regarding this matter prior to the issuance of the proposed amendment.

Principal Contributor: Alexander W. Dromerick

Date: January 25, 1993

UNITED STATES NUCLEAR REGULATORY COMMISSIONGPU NUCLEAR CORPORATIONDOCKET NO. 50-219NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENT AND  
FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-16, issued to the GPU Nuclear Corporation (the licensee), for operation of the Oyster Creek Nuclear Generating Station, located in Ocean County, New Jersey.

Identification of Proposed Action:

The amendment would consist of a change to the Oyster Creek Nuclear Generating Station Facility Operating License No. DPR-16 to extend the expiration date of the operating license from December 15, 2004 to April 9, 2009. These dates represent 40 years from the dates of issuance of the construction permit and the operating license, respectively. The license amendment is in response to the licensee's application dated October 4, 1991, as supplemented December 11 and 24, 1991, May 19, June 3 and 24, and November 5, 1992.

Summary of Environmental Assessment:

The NRC staff has reviewed the potential environmental impact of the proposed change in the expiration date of the operating license for the Oyster Creek Nuclear Generating Station. The staff reviewed the Final Environmental Statement Related to Operation of Oyster Creek Nuclear Generating Station, dated December 1974, the Environmental Assessment for the Oyster Creek Full Term Operating License issued April 10, 1986, and Supplement 1 to the Environmental Assessment issued June 19, 1991, and additional information provided by the licensee in its license amendment submittal, as supplemented, to determine if any significant environmental impacts, other than those

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previously considered, would be associated with the proposed license extension.

With regard to normal plant operation, occupational radiation exposures to personnel have decreased as a result of recent plant improvements. Further reductions in radiation dose rates are expected as a result of the ongoing as low as is reasonably achievable (ALARA) program.

Accordingly, the NRC staff concludes, that as a result of the license extension, the radiological impact on the general public would not increase over that previously evaluated in the FES and the occupational exposures will be consistent with the industry average and in accordance with 10 CFR Part 20.

The NRC staff has in the past concluded that the environmental impacts associated with the uranium fuel cycle are very small when compared with the dose commitments resulting from natural background sources.

The environmental impacts attributable to transportation of fuel and waste to and from the Oyster Creek Nuclear Generating Station, with respect to normal conditions of transport and possible accidents in transport, would be bounded as set forth in Summary Table S-4 of 10 CFR 51.52, and the values in Table S-4 would continue to represent the contribution of transportation to the environmental costs associated with reactor operation.

The NRC staff has concluded that the proposed extension would not cause a significant increase in the nonradiological impact to the environment and would not change any conclusions previously reached by the NRC staff.

FINDING OF NO SIGNIFICANT IMPACT:

The NRC staff has reviewed the proposed change to the expiration date of the operating license for the Oyster Creek Nuclear Generating Station relative

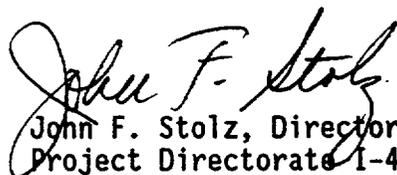
to the requirements set forth in 10 CFR Part 51. Based upon the environmental assessment, the staff concluded that there are no significant radiological or nonradiological impacts associated with the proposed action and that the proposed license amendment will not have a significant effect on the quality of the human environment. Therefore, the Commission has determined, pursuant to 10 CFR 51.31, not to prepare an environmental impact statement for the proposed amendment.

For further details with respect to this action, see (1) the application for amendment dated October 4, 1991, as supplemented December 11 and 24, 1991, May 19, June 3 and 24, and November 5, 1992; (2) the Final Environmental Statement Related to Operation of the Oyster Creek Nuclear Generating Station issued December 1974; (3) the Environmental Assessment for the Oyster Creek Full-Term Operating License issued April 10, 1984, and Supplement 1 to the Environmental Assessment issued June 19, 1991; and (4) the Environmental Assessment dated January 25, 1993.

These documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC 20555, and at the local public document room located at the Ocean County Library Reference Department, 101 Washington Street, Toms River, New Jersey 08753.

Dated at Rockville, Maryland, this 25th day of January 1993.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate 1-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation