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C321-92-2118
May 19, 1992

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

Gentlemen:

Subject: Oyster Creek Nuclear Generating Station (OCNGS)
Docket No. 50-219
Results of Evaluation Concerning
Evacuation Time Estimate Based on
1990 Census Data

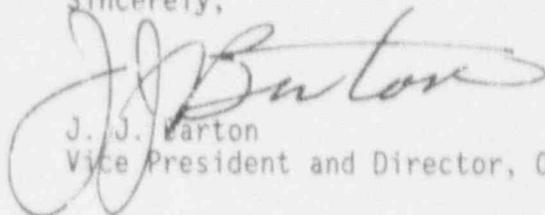
By letter dated October 4, 1991, GPU Nuclear Corporation (GPUN) submitted a license amendment request to extend the duration of the operating license to forty (40) years from the date of issuance of the full-power license.

We stated in the license amendment request that GPUN was to update its population distribution and resulting Emergency Plan Evacuation Time Estimates (ETE) on the basis of 1990 census data when it becomes available.

Your letter dated October 28, 1991 stated that summary files of the 1990 census data were available from the U.S. Census Bureau. We have recently completed our ETE evaluation based on 1990 census data. In our recent phone conversation, Mr. A. Dromerick, NRC Senior Project Manager for OCNGS, indicated that information under "Radiological Impact" in the license amendment request needs to be updated. The attached paragraphs update the information which also include a summary of the ETE evaluation results.

Should you have any further questions concerning the information provided in this letter, please contact Mr. Michael Laggart, Manager, Corporate Nuclear Licensing at (201) 316-7968.

Sincerely,



J. J. Barton
Vice President and Director, OCNGS

cc: Administrator, Region I
NRC Resident Inspector
Oyster Creek NRC Project Manager

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RADIOLOGICAL IMPACT

The Oyster Creek Nuclear Generating Station (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 1970's and early 1980's is expected to decline in the next two decades. The original Environmental Report projected an overall increase of 186% 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 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.

10 CFR 100.11 states that the population center distance must be at least one and one-third times the low population zone (LPZ) distance. The Oyster Creek LPZ is 0.75 miles. Thus, the population center distance, that is, the 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 original Environmental Report, 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 Oyster Creek site will challenge the 10 CFR 100 siting criteria.

Based on the above data, the projected population at the proposed license expiration date would not change the overall conclusion of the OCNGS FSAR or Environmental Report consequences following postulated accidents. Therefore, the conclusions reached in the original FSAR and Environmental Report remain valid.

The radiological environmental monitoring is performed by the GPU Nuclear Environmental Controls Department at the OCNGS. The operation of a nuclear power plant results in the release of small amounts of radioactive materials to the environment. A radiological environmental monitoring program (REMP) has been established to monitor radiation and radioactive materials in the environment around the OCNGS. The program evaluates the relationship between amounts of radioactive material released in effluents to the environment and resultant radiation doses to individuals.

During 1990 (the year the latest official data available at this writing), as in previous years, the radioactive liquid and airborne effluents associated with the OCNGS were a small fraction of the applicable federal regulatory limits and did not have significant or measurable effects on the quality of the environment. Calculated maximum hypothetical radiation doses to the public attributable to 1990 operations at the OCNGS ranged from 0.0002 percent to a maximum of only 0.38 percent of the applicable regulatory limits. Furthermore, they were significantly less than doses received from common sources of radiation. Therefore, it is concluded that the radiological impact due to liquid and airborne effluents from OCNGS is insignificant.