



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 145

TO PROVISIONAL OPERATING LICENSE NO. DPR-16

GPU NUCLEAR CORPORATION AND
JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

INTRODUCTION

By an application for amendment dated September 21, 1990, GPU Nuclear Corporation (GPUN/licensee) requested a revision of the Technical Specification (TS) to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. The proposed change extends the channel calibration interval from 18 months to 24 months for Items 2a, 2d, 3a, and 3d of Table 4.15.2. Items 2a and 2d provide surveillance requirements for the Main Stack Radioactive Noble Gas monitors and the associated effluent flow element. Items 3a and 3d provide surveillance requirements for the Turbine Building Ventilation Radioactive Noble Gas monitors and flow element. The proposed surveillance interval is intended to support a 24-month refueling cycle at Oyster Creek. GPUN's request to revise License Condition 2.C.7 of Provisional Operating License No. DPR-16 was evaluated as a separate amendment and Amendment No. 143 was issued on December 27, 1990.

2.0 EVALUATION

The Radioactive Gaseous Effluent Monitoring System was installed at Oyster Creek Nuclear Generating Station to replace the stack gas monitoring system in response to NUREG 0578 and NUREG 0737. This evaluation encompasses the low range noble gas monitors and associated flow elements for both the Main Stack and Turbine Ventilation Monitoring Systems.

The Radioactive Gaseous Effluent Instrumentation is provided to monitor the release of radioactive materials in the effluent discharged from the Main Stack and Turbine Building Exhaust Ventilation Systems. The Main Stack Monitoring System has alarms which annunciate in the control room. A low flow signal for sampled stack effluent also causes a control room alarm. The Turbine Ventilation Monitoring System measures the radioactive releases from the feedwater pump area and operating floor. A flow transmitter provides indication of air flow in the ventilation stack. Both the Main Stack and Turbine Building Ventilation Monitoring Systems are information systems only and do not provide any control functions.

The Main Stack and Turbine Building Ventilation Noble Gas Monitoring Systems require daily channel checks, monthly source checks, monthly channel functional tests, and calibration every 18 months. The 18-month calibration

verifies the system to a source of known radioactivity with differing decay energies, to ensure that the sensor has not degraded.

The Main Stack and the Turbine Building Ventilation Noble Gas Monitoring Systems effluent flow measurements are recorded daily. A functional test is performed every 3 months to verify the flow indicator response to varying flow rates and test the loss of flow alarm response. The flow elements are also required to be calibrated every 18 months per TS requirements. The stack flow transmitter is used to adjust the sample flow to $\pm 20\%$ of stack flow. The licensee stated that the solid state electronics used in the flow element exhibit negligible drift at 18-month intervals and are expected to exhibit an insignificant increase in drift for a 24-month interval.

Outage surveillance data history has not been established due to the recent installation of these systems. The monthly source check and quarterly functional test results were reviewed by the licensee. The results of this evaluation did not indicate any adverse trends. Both the Main Stack and Turbine Building Radioactive Noble Gas Monitors have performed reliably. The licensee reviewed the Nuclear Plant Reliability Data System and found no related system reliability information.

Both the Main Stack and Turbine Building Ventilation Monitoring Systems undergo daily channel checks, monthly source checks, and quarterly functional tests in addition to the 18-month calibration. These surveillances were not revised by this submittal and will continue to ensure system operability. As stated by the licensee the flow element will allow for accurate sample flow calibration over the proposed 24-month surveillance interval. A review of the results of the monthly source check and quarterly functional tests by the licensee found no adverse trends. The licensee has agreed that since these systems were installed recently, the licensee will initiate means to collect and trend the required data to ensure that the extended surveillance interval is appropriate for the referenced systems. Based on the above the staff finds the proposed 24-month surveillance interval for the Main Stack Radioactive Noble Gas monitors, Turbine Building Ventilation Radioactive Noble Gas monitors and associated flow elements to be acceptable.

ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on January 23, 1991 (56 FR 2543). Accordingly, based upon the environmental assessment, we have determined that the issuance of the amendment will not have a significant effect on the quality of the human environment.

CONCLUSION

The staff has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: January 28, 1991

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