



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 200

TO FACILITY OPERATING LICENSE NO. DPR-16

GPU NUCLEAR, INC. AND

JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated May 28, 1998, GPU Nuclear, Inc., the licensee for the Oyster Creek Nuclear Generating Station, proposed to defer the next containment integrated leakage rate test (CILRT) from refueling outage 17R to refueling outage 18R. This would require an amendment to TS 4.5.A which provides that the first Type A (CILRT) test required by the Primary Containment Leakage Rate Test Program will be performed during refueling outage 17R.

2.0 BACKGROUND

On September 26, 1995, the NRC published a revision to 10 CFR Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." The revision added Option B, "Performance-Based Requirements," to Appendix J to allow licensees to voluntarily replace the prescriptive testing requirements of Appendix J with testing requirements based on both overall and individual component leakage rate performance.

Regulatory Guide 1.163, "Performance-Based Containment Leak Test Program," dated September 1995, was developed as a method acceptable to the NRC staff for implementing Option B. This regulatory guide states that the Nuclear Energy Institute (NEI) guidance document NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," provides methods acceptable to the NRC staff for complying with Option B with four exceptions which are described therein.

Option B requires that Regulatory Guide 1.163 or another implementation document used by a licensee to develop a performance-based leakage testing program must be included, by general reference, in the plant TS. The licensee has referenced Regulatory Guide 1.163 in TS 4.5.A.

Regulatory Guide 1.163, through NEI 94-01, allows an extension in the CILRT test interval to 10 years, as compared to the normal 4 years, based upon two consecutive successful tests. However, it specifies that at least one of those tests to have been performed at pressure P_a , which is the calculated peak containment internal pressure related to the design basis loss-of-coolant accident as specified in the TS. Before the 1995 revision, Appendix J allowed a licensee

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to choose to perform the tests at a pressure of either P_a , or at a lower pressure called P_t . Option B of Appendix J now requires all CILRTs to be done at P_a , because this generally gives more accurate and reliable results. In the case of Oyster Creek, the last two tests, in March 1989 and January 1993, were performed at P_t (20 psig) rather than P_a (35 psig). Thus, Oyster Creek does not meet the successful test criteria of RG 1.163 for extending its test interval to 10 years.

The licensee adopted Option B via License Amendment 186, dated September 3, 1996. At that time, a CILRT would have been required during refueling outage 16R. As part of amendment 186, the licensee requested and received an exception to Regulatory Guide 1.163 to permit a "one-time" extension of the test interval to refueling outage 17R. Currently, the following exception to Regulatory Guide 1.163 appears in TS 4.5.A.:

The first Type A test required by this program will be performed during refueling outage 17R.

Note that "Type A test" is another name for the CILRT.

The following is excerpted from the Safety Evaluation (SE) for amendment 186:

The licensee requested the one-cycle extension to the Type A test interval to allow an orderly transition from the existing reduced pressure Type A leakage rate testing prior to performing a full pressure Type A test and provided supporting analysis. The staff finds the licensee's request acceptable for the following reasons.

Over the last 10 years, three Type A tests have been performed and all three were within the specified limits of Appendix J. In addition, Oyster Creek's performance is consistent with that of the industry as a whole in that the major contributor to total identified leakage is found by Type B and C [local leakage rate] tests. Only a small fraction of the total leakage is detectable only through Type A testing. Type B and C testing will continue to be performed on the required schedules.

The Oyster Creek containment is inerted by replacing air with nitrogen. Nitrogen makeup to the containment is monitored daily and would serve as an indication of gross containment leakage.

The licensee is now requesting an additional deferral of the CILRT for another fuel cycle. The plant is currently in the midst of refueling outage 17R, and the licensee recently announced that the plant will be permanently shut down after one more fuel cycle.

3.0 EVALUATION

The licensee requests to defer the CILRT that is currently required to be performed during refueling outage 17R until refueling outage 18R in anticipation of a permanent shut down prior to refueling outage 18R. The staff finds the licensee's request acceptable for the following reasons.

The staff's SE for amendment 186, quoted above, for accepting a the extension of the test interval from refueling outage 16R until refueling outage 17R, remains valid for the current request. In particular, the staff finds that the licensee's performance is consistent with the industry in that Type B and C (local leak rate) tests identify the majority of total leakage. Only a small fraction of total leakage is detectable through Type A testing alone. Type B and C testing

will continue to be performed on the required schedules. In addition, the staff considers that the two successful Type A tests in 1989 and 1993, which were performed at Pt, along with the licensee's daily nitrogen monitoring provide reasonable assurance that the integrity of the containment structure continues to be maintained.

Furthermore, it was well documented in the 1995 rulemaking for Appendix J, Option B, especially in NUREG-1493, "Performance-Based Containment Leak-Test Program," that the increase in public risk from extending the CILRT interval to 10 years is negligible. The proposed test interval, from refueling outage 17R until refueling outage 18R, would be less than 10 years. The extension (by one fuel cycle) of the test interval is relatively small compared to ten years and involves less of an increase in risk.

Based on the above, the staff finds that the proposed revision to the TS, which defers the next CILRT until refueling outage 18R, is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a surveillance requirement. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (63 FR 38201). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission 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, (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 or to the health and safety of the public.

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Date: October 15, 1998