



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

April 29, 1985

Docket No. 50-219
LS05-85-04-040

Mr. P. B. Fiedler
Vice President and Director
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Fiedler:

SUBJECT: MODIFICATION OF CONFIRMATORY ORDER OF JUNE 17, 1983, FOR NUREG-0737,
ITEM II.B.3, POST-ACCIDENT SAMPLING SYSTEM

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed Amendment No. 81 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (OCNGS). This amendment is in response to your application dated April 22, 1985.

This amendment changes the date when the NUREG-0737, Item II.B.3, Post-Accident Sampling System (PASS) is required to be fully operational. This date will now be the next shutdown of known sufficient duration to (1) open valve V-24-29 and draw reactor coolant water samples from the Reactor Recirculation System and the Liquid Poison System and (2) draw a sample from the Shutdown Cooling System but no later than before the restart from the planned outage currently scheduled for October 1985 or the Cycle 11 Refueling Outage whichever is earlier.

The staff reviewed the circumstances associated with the licensee's request and determined that, in accordance with 10 CFR 50.91(a)(5), a valid emergency situation exists. However, the Commission expects licensees to apply for license amendments in a timely fashion to avoid emergency license amendments. You should review your procedures for scheduling work to meet license deadlines to avoid the need for emergency amendment license requests in the future.

The amendment was approved by a telephone call from the NRC Oyster Creek Project Manager on April 29, 1985.

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A Notice of Issuance of Amendment to License and Final No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action will be included in the Commission's monthly publication notice in the Federal Register. A copy of our related Safety Evaluation is also enclosed.

Sincerely,

Original signed by:

John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:

- 1. Amendment No. 81 to License No. DPR-16
- 2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. P. B. Fiedler

- 3 -

April 29, 1985

cc

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

GPU NUCLEAR CORPORATION
AND
JERSEY CENTRAL POWER & LIGHT COMPANY
OYSTER CREEK NUCLEAR GENERATING STATION
AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 81
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation and Jersey Central Power and Light Company (the licensees) dated April 22, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changing the schedule in Confirmatory Order dated June 17, 1983, for when the NUREG-0737, Item II.B.3, Post-Accident Sampling System is to be fully operational. This date will be the next shutdown of known sufficient duration to draw samples from the Reactor Recirculation System, Liquid Poison System and Shutdown Cooling System but no later than the restart from the planned outage currently scheduled for October 1985 or the Cycle 11 refueling outage, whichever is earlier.
3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for *Walter A. Paulson*
John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

Date of Issuance: April 29, 1985.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 81 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

1.0 INTRODUCTION

NRC Confirmatory Order dated June 17, 1983, confirmed GPU Nuclear (licensee) commitments to implement certain post-TMI related items set forth in NUREG-0737, Clarification of TMI Action Plan Requirements, and Generic Letter 82-05, Post-TMI Requirements, for which the staff requested completion on or after July 1, 1981. One of these items was the Post-Accident Sampling System (PASS), Item II.B.3, which the Confirmatory Order required to be fully operational within 6 months after restart from the Cycle 10 refueling outage. This date is April 29, 1985. By letter dated April 22, 1985, the licensee stated that the PASS will not be fully operational by April 29, 1985, because samples have not been, and may not be, drawn from the Reactor Recirculation System, the Liquid Poison System and the Shutdown Cooling System.

The licensee requested that the license be modified to extend the date for the PASS to be fully operational from April 29, 1985, to the next shutdown, or at the latest, the outage currently scheduled for October 1985.

2.0 DISCUSSION AND EVALUATION

Subsequent to the TMI-2 incident, the need was recognized for PASS to determine the extent of core degradation following a severe reactor accident. Criteria for an acceptable sampling and analysis system are specified in NUREG-0737, Item II.B.3. The system should have the capability to obtain and quantitatively analyze reactor coolant and containment atmosphere samples during and following an accident in which there is core degradation. Materials to be analyzed and quantified include certain radionuclides that are indicators of severity of core damage (e.g., noble gases, isotopes of iodine and cesium, and nonvolatile isotopes), hydrogen in the containment atmosphere and total dissolved gases or hydrogen, boron, and chloride in reactor coolant samples. The staff's evaluation of the licensee's PASS was issued in the Safety Evaluation (SE) dated August 19, 1984.

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The licensee states that, except for not being able to draw samples from three systems, the PASS is fully operational. Therefore, if there is an emergency which would require the use of the PASS, the PASS should be able to obtain the required samples and perform the required analyses given in the staff's SE dated August 19, 1984.

For the PASS to be declared fully operational, the licensee must still draw reactor coolant water samples from the Reactor Recirculation System, the Liquid Poison System and the Shutdown Cooling System. Samples from the first two systems can be drawn during power operation because these systems do not require lower reactor pressures and temperatures than exist during power operation plant conditions. This is not true for the Shutdown Cooling System and samples can only be drawn from this system into PASS during plant shutdown. To draw samples from the Reactor Recirculation System and the Liquid Poison System, containment isolation valve V-24-29 must be opened. In preparing for drawing these samples, the licensee found that this valve leaks past its seat and this leakage is sufficient for the plant Technical Specifications (TS) to require that the valve must be shut during power operation. Therefore, the licensee cannot draw a sample from the above systems during power operation to show that the PASS is operational.

The TS requirements on containment isolation require the above valve to be shut during power operation. This requirement is to ensure containment integrity so that the containment will be isolated from the outside environment in the event of a significant release of radioactivity from the fuel. This is consistent with the requirements of General Design Criteria (GDC) 54 through 57 of Appendix A to 10 CFR Part 50.

Therefore, to declare the PASS fully operational, the licensee must shut down to draw samples from the Reactor Recirculation System, the Liquid Poison System and the Shutdown Cooling System. The PASS is designed to determine the extent of core degradation following a severe reactor accident and, except for not actually having drawn samples from the three systems listed above, should now, based on the licensee's letter dated April 22, 1985, be operational and capable of performing its intended function. The licensee is prevented from drawing samples for the PASS and therefore the PASS cannot be declared fully operational while the plant is in power operation and the plant must shut down to draw these samples.

The licensee also acknowledged, in its letter dated April 22, 1985, a problem in the gas sample analysis of the PASS regarding moisture on filter cartridges. This is currently being investigated by the licensee. The staff does not consider this problem part of what has to be done by the licensee to have the PASS declared fully operational.

The staff concludes that the safety significance of the remaining work to be completed to declare the PASS fully operational does not warrant requiring the licensee to shut down and cycle the plant through a plant shutdown and restart to demonstrate that samples can be taken from the three systems listed above and in turn, declaring the PASS fully operational. Minimizing the number of plant shutdowns and restarts also has safety significance.

In summary, the licensee has proposed to modify the license to extend the date when the PASS is to be fully operational. The staff concludes that it is acceptable to extend this date to, as the licensee proposes, the next shutdown of known sufficient duration to (1) open valve V-24-29 and draw reactor coolant water samples from the Reactor Recirculation System and the Liquid Poison System and (2) draw a sample from the Shutdown Cooling System, but no later than before the restart from the planned outage currently scheduled for October 1985. This work must be completed no later than before the restart from the scheduled Cycle 11 refueling outage.

2.1 Findings of Emergency Warranting Amendment Without Usual Notice

Without this amendment, the licensee will shut down the plant on April 30, 1985. The staff has had several discussions on the PASS and on it being fully operational by April 29, 1985, with the licensee since March 27, 1985, when the containment isolation valve V-24-29 was determined to be inoperable because of high leakage past its seat and had to be shut during power operation. The licensee believed that the plant would have to be shut down in April 1985 before April 29, 1985, for reasons other than the PASS and would be down for a sufficient duration to draw the required samples into PASS. The possibility of this happening disappeared on April 17, 1985 and the licensee decided to request an extension to the Confirmatory Order dated June 17, 1983. The licensee requested the extension in its letter of April 22, 1985. The staff has reviewed the emergency circumstances associated with the licensee's request and determined that, in accordance with 10 CFR 50.91(a)(5), a valid emergency situation exists. The staff believes that the licensee made a timely application and did not fail to seek this amendment earlier in order to create the emergency and take advantage of the emergency provisions.

2.2 Final No Significant Hazards Consideration Determination

The PASS does not act to mitigate the consequences of an accident. It is designed to determine the extent of core degradation following a severe reactor accident. The licensee states that the PASS is fully operational except that the licensee must still demonstrate that samples can be drawn from three systems. While the licensee has not demonstrated the PASS to be fully operational, in an emergency the PASS should be able to obtain the required samples and perform the required analyses. Therefore, it is unnecessary to require the plant to shutdown at this time just to demonstrate that samples can be drawn into the PASS from the three systems and then restart. Completion of the PASS operational tests will be required as described above. Extending the date that the PASS is declared fully operational (1) does not involve a significant increase in the probability or consequences of a previously evaluated accident, (2) does not create the possibility of a new or different kind of accident from any accident previously evaluated and (3) does not involve a significant reduction in a margin of safety. Based on this, the staff concludes that the requested action does not involve a significant hazards consideration.

2.3 State Consultation

In accordance with the Commission's regulations, consultation was held with the State of New Jersey, Bureau of Radiation Protection, by telephone on April 25, 1985. The State of New Jersey expressed no concern over the proposed schedule extension for the PASS to become fully operational. No other comments were solicited or received. A Notice of the proposed amendment was not published in the Federal Register due to the lack of sufficient time for public comment prior to the April 29, 1985, date in the Confirmatory Order dated June 17, 1983, that the PASS is required to be fully operational.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 made a final finding that this amendment involves no significant hazards consideration. Accordingly, this 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 this amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) create the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, the amendment does not involve significant hazards considerations, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ACKNOWLEDGEMENT

This evaluation was prepared by J. Donohew, Jr.

Dated: April 29, 1985.