



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

March 12, 1987

Docket No. 50-219

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: AIRBORNE PARTICULATE AND GASEOUS RADIOACTIVITY MONITORS (SEP TOPIC V-5,
IPSAR 4.16.1, TAC 61968)

Re: Oyster Creek Nuclear Generating Station

In its letter dated July 8, 1986, GPU Nuclear (the licensee) requested the cancellation of its commitment to restore the drywell airborne particulate and gaseous radiation monitoring system (APGRMS). The commitment was in its letter dated November 16, 1982. This request is related to Section 4.16.1 of the staff's Integrated Plant Safety Assessment Report (IPSAR) for Oyster Creek and with the staff's deferment of these monitors to the Cycle 12 Refueling (Cycle 12R) outage in its safety evaluation dated October 6, 1986. The IPSAR is NUREG-0822 dated January 1983 and is the report on the status of the staff's review of Oyster Creek in the staff's Systematic Evaluation Program (SEP). IPSAR Section 4.16 is concerned with SEP Topic V-5, Reactor Coolant Pressure Boundary (RCPB) Leakage Detection.

In IPSAR Section 4.16.1, the staff stated that Oyster Creek had only one of the detection systems (sump level monitoring) recommended in Regulatory Guide 1.45. The staff further stated that the plant had an APGRMS installed in the drywell. This latter system is also recommended in the Regulatory Guide; however, the system had never been placed in operation at Oyster Creek because of problems. The APGRMS would be used to detect RCPB leakage indirectly by measuring the radioactivity in the drywell atmosphere which had come from the reactor coolant water leaking into the drywell.

The licensee committed to (1) identify the system modifications necessary to make the airborne particulate and gaseous radioactivity monitors operational, (2) evaluate the reliability and sensitivity of the existing leakage detection systems, and (3) propose a schedule for any necessary system modifications or procedural changes. The staff concluded in the IPSAR Section 4.16.1 that the licensee's proposed action was acceptable.

In its letter dated July 26, 1985, requesting deferment of the APGRMS to the Cycle 12R outage, the licensee stated that its evaluation of the APGRMS had revealed numerous problem areas requiring extensive redesign, modification or replacement of the system. The licensee was assessing various alternatives in order to arrive at a working system and stated that considering the extent of the remaining design work and projected delivery times for equipment it anticipated installation and testing of the APGRMS in the Cycle 12R outage.

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Mr. P. B. Fiedler

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March 12, 1987

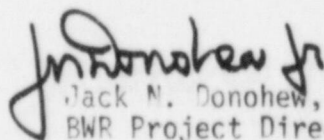
Based on this, the licensee requested deferment of the installation and testing of an operating APGRMS to detect RCPB leakage to the Cycle 12R outage. The staff granted this deferment in its letter dated October 6, 1986.

In its letter dated July 8, 1986, the licensee described the adequacy of its sump monitoring system to detect RCPB leakage. The licensee concluded that this system's sensitivity is sufficient to allow safe shutdown before a crack would grow to an unstable length. Limiting conditions for operation and surveillance requirements on this system were incorporated in the Technical Specifications (TS) in Amendment No. 97 to the license dated January 6, 1986. Therefore, the licensee has evaluated the reliability and sensitivity of the existing sump detection system requested in IPSAR Section 4.16.1.

The licensee also stated in its letter dated July 8, 1986, that a new APGRMS would have to be designed, installed, and tested for Oyster Creek. It concludes, however, that the APGRMS would be of little use in quantifying leakage rates to meet TS leakage limits. The APGRMS would measure the leakage indirectly through released radioactivity and could only be used as a trending indication of the leakage which must be confirmed and quantified by other means. Therefore, the licensee concludes the APGRMS is of limited value and there are other data available as drywell pressure, humidity and temperature which can provide the information needed concerning RCPB leakage.

The licensee has identified the system modifications needed to make the APGRMS operational and has committed to install the system in the Cycle 12R outage. This completes the information requested from the licensee in IPSAR Section 4.16.1. Its request in its letter dated July 8, 1986, to cancel this commitment has been reviewed by the staff. The staff concludes that the licensee has not provided sufficient justification to cancel its commitment to install the APGRMS. The licensee has not provided in detail the lack of sensitivity of the APGRMS, the cost of making the APGRMS operational and the sensitivity of other data as drywell pressure, humidity and temperature to provide data concerning RCPB leakage. Regulatory Guide 1.45 recommends at least three separate detection methods should be used including sump detection and an APGRMS. Therefore, the staff concludes that the APGRMS should be installed in the Cycle 12R outage.

Sincerely,



Jack M. Donohew, Project Manager
BWR Project Directorate #1
Division of BWR Licensing

cc: See next page

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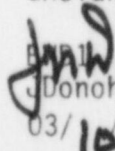
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