Duquesne Light

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July 3, 1986

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

ATTENTION: Dr. Thomas E. Murley
Administrator

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
21C Reactor Coolant Pump Damage/Cleanliness Control
Potential Significant Deficiency 86-08

Gentlemen:

On May 16, 1986, Duquesne Light Company (DLC) identified problems encountered during testing of reactor coolant pump 21C as potentially reportable under the provisions of 10CFR50.55(e). On June 16, 1986, R. J. Wallauer, Lead Compliance Engineer, contacted Mr. L. Tripp, NRC Region I to request an extension in the time allowed for the written report. The extension was requested to allow management to review the project evaluations of the concern. Mr. Tripp approved the extension and requested that the telephone conversation be referenced in this report.

DUQUESNE LIGHT COMPANY

By R E Martin for
J. J. Carey
Vice President

RJW/ijr

Attachments

cc: Mr. P. Tam, Project Manager - w/attachment
Mr. J. M. Taylor, Director (3) - w/attachment
Mr. W. Troskoski, Sr. Resident Inspector - w/attachment
INPO Records Center - w/attachment
NRC Document Control Desk - w/attachment

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ATTACHMENT

I. SUMMARY

During filling and venting of the reactor coolant system (RCS), in preparation for hydrostatic testing, reactor coolant pump "C" (RCP-C) was started several times. Excess vibration was observed during the last run. The hydrostatic test was completed without RCP-C. After the hydrotest, the pump was started for diagnosis by Westinghouse. Excessive vibration limited the pump run, thus precluding complete diagnosis.

After the "C" loop was drained for inspection, a broken, site-fabricated steam generator nozzle dam was found lodged in the impeller of RCP-C. Other foreign material identified in the RCS included a rag and several plastic plugs from the reactor vessel internals.

II. Immediate Action Taken

Inspections were conducted to evaluate the cleanliness of the RCS. RCP-C was disassembled and internals were sent to Westinghouse for repairs. On May 16, 1986, Mr. S. D. Hall notified Mr. L. Tripp, NRC Region I, that DLC considered this issue to be potentially reportable under the requirements of 10CFR50.55(e).

III. Description of Deficiency

Loss of cleanliness control on RCS resulted in damage to RCP-C.

IV. Analysis of Safety Implications

10CFR50.55(e) criteria require that the safety impact be considered for ". . . . each deficiency. . . which, were it to have remained uncorrected, could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant. . . . .". Pieces of the broken plate and excessive RCP-C vibration preclude safe plant operation without corrective action.

V. Corrective Action to Resolve the Deficiency

The corrective actions include:

A. Repairs to the "C" loop reactor coolant pump.

B. BVPS-2 programs for establishment and control of cleanness zones have been reviewed.

C. FCP 5.1, "Requirements for Establishing and Maintaining Cleanness Zones", was changed on May 19, 1986. Changes included in FCP 5.1 include:

- written requests for establishment of cleanness zones.
- formal notification to concerned personnel of the effective date and area included in new cleanness zones.
- Extending security officer control of access to twenty-four hours per day/seven days per week.

- Established Zone II requirements when breaching a pressure boundary of a turned-over system.

D. FCP 5.0, "General Housekeeping", was changed on June 16, 1986.

E. Memorandums have been distributed to clarify cleanliness requirements and to emphasize the need for compliance with those requirements.

F. Westinghouse has been asked to address corrective actions with respect to the Reactor Vessel Internals plugs.

VI. Additional Reports

No additional reports are anticipated with respect to this issue.