

Jersey Central Power & Light Company

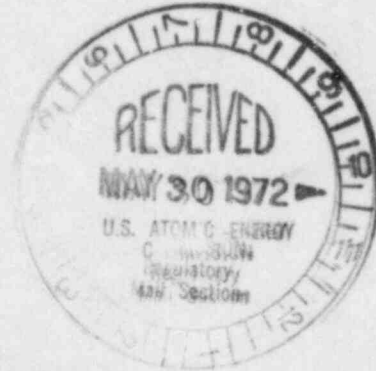
MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 539-6111

May 24, 1972

Mr. A. Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Giambusso:

Subject: Docket No. 50-219
Oyster Creek Station
Fuel Assembly Loading Error



The purpose of this letter is to report to you that the Oyster Creek core was operated through cycle 1B with one fuel bundle misoriented. This event was an abnormal occurrence as defined by Technical Specification 1.15.F.

During refueling operations in the fall of 1971, fuel assembly JC 359 was inserted into core location 25-08 in an improper manner. The fuel assembly was oriented in such a way that it was rotated 90 degrees counterclockwise from its proper position.

The loading error remained undetected and the reactor was operated at a power level of 1840 MWt for approximately six months. During shuffling operations on May 6, 1972, the operator was unable to position the sipper head on control cell 26-07 (adjacent to core location 25-08). Investigation into this problem revealed that fuel assembly JC 359 was misoriented. A check of the videotape of the reactor core taken on October 31, 1971 confirmed that the loading error was made during the poison curtain outage. Records show that the error occurred at 0331 hours on October 31, 1971.

During refueling operations, several redundant checks are performed to assure proper core loading. The specific controls are:

1. The operator on the fuel grapple is aware of the proper orientation and location of fuel assemblies.
2. The Shift Foreman on the refueling bridge must verify that the fuel assembly move is performed properly.

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3. An engineer was assigned to the refueling bridge to verify that the moves were performed properly.
4. Following core alterations, the final core arrangement was verified using the underwater television camera. At least four engineers observed the core verification.

The performance of control rod 26-07 was compared with all other control rods during cycle 1B and found to perform within the Technical Specification limits. The misoriented fuel assembly had no apparent affect on the control rod performance.

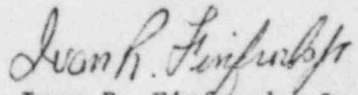
The improper orientation of a fuel assembly has been evaluated for this situation and is discussed in Paragraph 4.9.4.2 of Section III of the Cyster Creek FD&SAR (Amendment No. 3). This analysis indicates that in the event of a 90-degree misorientation, the peak heat flux would be far below the fuel damage limit.

In the future, procedures, including diagrams, will be prepared to permit the following to be accomplished after completion of refueling activities:

1. The station television camera system will be used as before to verify the location of each fuel assembly in the core.
2. A second video picture will be taken of the core permitting an entire control cell to appear in the picture at one time. This will be used to independently verify the proper fuel assembly orientation.

We are enclosing twenty-five copies of this report.

Very truly yours,



Ivan R. Finfrock, Jr.
Manager, Nuclear Generating Stations

IRF/pk

Enclosures

cc: Mr. J. P. O'Reilly, Director
Regulatory Operations, Region I