

UNITED STATES ATOMIC ENERGY COMMISSION WASHINGTON, D.C. 20545

PO(3) 128-

June 20, 1974

Docket No. 50-219

LICENSEE: JERSEY CENTRAL POWER AND LIGHT COMPANY

FACILITY: OYSTER CREEK NUCLEAR PLANT

SUMMARY OF MEETING HELD WITH APPLICANT ON 8 X 8 LEAD FUEL ASSEMBLIES

Introduction

On May 22, 1974, representatives of Jersey Central Power and Light Company (JCP&L) met with the Regulatory staff to present requested information regarding Exxon 8 x 8 UO_2 lead fuel assemblies for use in the Oyster Creek facility. JCP&L had proposed to load four 8 x 8 assemblies into the Oyster Creek core during the present spring refueling outage. A list of attendees is attached.

Discussion

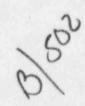
JCP&L presented an agenda for their presentation of information regarding the Exxon 8 x 8 UO₂ fuel assemblies. Presentations were made by General Public Utilities Service Company (GPUSC) and Exxon personnel. A copy of the agenda is enclosed.

The performance of the 8 x 8 Exxon fuel assemblies was based upon information from 495 fuel assemblies operating in various reactors, 493 of which were operated in Boiling Water Reactors. The performance was shown to be without fuel failure.

Design aspects relative to 7×7 fuel were discussed. The significant new design aspects were:

- 1. 1% dishing in the fuel pellets for expansion.
- 2. Low L/D ratio to reduce cocking of the fuel.
- 3. Upper tie plate design permits easier disassembly.
- Four passive zirconium rods in each assembly provides increase in water droplet cooling in the event of a LOCA.

These design features are incorporated in the lead 8 x 8 fuel assemblies.



9604180146 960213 PDR FOIA DEKOK95-258 PDR The four 8 x 8 fuel assemblies proposed to be loaded into the Oyster Creek core are lead assemblies and the small number are considered by Exxon, GPUSC and the staff to have no significant affect on the operation of the core. However, several areas of concern need to be addressed for our review prior to the use of a significant number of 8 x 8 Exxon fuel assemblies for core reloads. These are:

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1. Spray cooling tests and results of tests.

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- 2. Flow blockage effects.
- 3. Temperature transient plots for fuel rods during operation of ECCS for various size breaks, particularly with comparison to 7×7 fuel assemblies.
- Clad collapse calculations for 8 x 8 fuel as per SER for Exxon BWR fuels, December 17, 1973.

The staff suggested that a surveillance program be established by JCP&L for the 8 x 8 lead Exxon fuel assemblies as part of the design basis for the generic review of the Exxon 8 x 8 assembly. The plan for the surveillance program should be submitted to the staff for our review. The results of interim inspections should be included in periodic progress reports for Regulatory staff review.

Conclusions

Based on the above, the staff concluded that use of four Exxon lead fuel assemblies in the Oyster Creek core during cycle 4 operation is an acceptable proposal, contingent upon completion of review of the JCP&L Facility Change Request No. 6, dated April 16, 1974, for the Oyster Creek facility. A proposed Technical Specification Change for the 8 x 8 fuel assemblies is required to be submitted by JCP&L before we can complete an amendment to the Oyster Creek license authorizing use of this fuel.

> John I. Riesland Operating Reactors Branch #2 Directorate of Licensing

Enclosures: 1. Attendance List 2. Agenda

DISTRIBUTION FOR MEETING NOTICES

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Docket File AEC PDR Local PDR L Reading File Branch Reading File E. G. Case A. Giambusso R. S. Boyd **RP** Assistant Directors RP Branch Chiefs T. J. Carter J. M. Hendrie TR Assistant Directors TR Branch Chiefs A. Kenneke RO (3) RS (3) OGC R. Fraley, ACRS (3) Principal Staff Participants Receptionist Jersey Central Power & Light Company

ATTENDANCE LIST

MEETING ON OYSTER CREEK

MAY 22, 1974

GENERAL PUBLIC UTILITIES SERVICE COMPANY

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- N. Trikouros
- T. Robbins
- V. Zodiaco
- T. Crimmins
- B. Cherry

EXXON

- L. Federico
- L. Steves
- W. Gallaugher
- W. Nechodom
- G. Soter

AEC - STAFF

- J. Riesland
- L. S. Rubenstein W. Minners
- L. Beltracchi
- R. Woods
- F. Coffman
- S. Kim
- D. Houston
- D. Fieno

ENCLOSURE NO. 2

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AGENDA

OYSTER CREEK 8 x 8 LEAD ASSEMBLIES BETHESDA, MARYLAND 5/22/74

10:00 - 10:15	1.	Introduction	Mr. B. Cherry Mr. T. Crimmins Mr. W. Nechodom
10:15 - 10:30	2.	EXXON Nuclear Fuel Performance	Dr. G. Sofer
10:30 - 10:45	3.	Spray Coefficients for 8 x 8's	Dr. L. Stewes
10:45 - 11:00	4.	Spray Cooling Testing - FCTF Tests	Dr. G. Sofer
11:00 - 12:00	5.	8 x 8 Supporting Design and Testing Information . Mr. W. Gallaugher	
		LUNCH	
1:30 - 2:00	6.	Methods for Calculating Scram Reactivity and Results of Analysis Mr. L. Federico	
2:00 - 2:30	7.	TH Methods and Correlations Used in	Transient Analysis Dr. L. Steves
2:30 -	8.	Other AEC Concerns	