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

Docket No. 50-219

FL 1 2 1975

Jersey Central Power & Light Company
ATTN: Mr. Ivan Finfrock, Jr.
Vice President
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Gentlemen:

Your letter dated July 15, 1974, provided additional information concerning your analysis of postulated breaks of pipes inside containment that contain high energy fluid. This additional information was provided in response to our letter of August 7, 1973, concerning our review of your application for conversion of the Oyster Creek Nuclear Generating Station Provisional Operating License No. DPR-16 to a full-term operating license.

Based on our review of the above cited submittal, we find that your proposed augmented inservice inspection program for postulated high energy pipe breaks inside containment is not acceptable. The enclosure describes an augmented inservice inspection program for postulated high energy pipe breaks inside containment that is acceptable to us. Our review of your analysis of the consequences of postulated high energy pipe breaks outside containment has not been completed.

We will need your response to the enclosed position by February 28, 1975, to meet our review schedule. This position was discussed with representatives of General Public Utilities Corporation in a telephone conversation January 23, 1975.

You are requested to provide this information in three signed and notarized originals and thirty-seven conformed copies. Please contact us if you have any questions regarding the information requested.

Sincerely,

George Lear

George Lear, Chief
Operating Reactors Branch, #3
Division of Reactor Licensing

Enclosure
Inservice Inspection Program

cc: See next page



ENCLOSURE

Oyster Creek Nuclear Generating Station

AUGMENTED INSERVICE INSPECTION PROGRAM FOR PIPING COMPONENTS INSIDE CONTAINMENT*

Area of Examination	Method of Examination	Extent and Frequency of Examination
<p>A. Postulated pipe break welds that upon rupture may result in unacceptable consequences and that have high stress levels***</p>	<p>Volumetric</p>	<p>1. 100% each weld for at least three consecutive inspections** at periods of 3-1/3 years.</p> <p>2. If no defects are detected, or the defects do not exceed the allowable standards of ASME Code Section XI, during inspections of 1., above, subsequent inspection may be limited to once during each inspection interval.</p> <p>If defects are detected that exceed the allowable standards of ASME Code Section XI, the additional examinations requirements of IWB-2430 (Class 1 piping) and IWC-2430 (Class 2 piping) shall apply, and the frequency of examination shall revert to 1</p>
<p>B. All other postulated pipe break welds that upon rupture may or may not result in unacceptable consequences.</p>	<p>As required by ASME Code Section XI.</p>	

* Through the service life of the facility, the ASME Code, Section XI that may be used shall be the Edition and the Addenda in effect 40 months or less prior to the date of scheduled inspection to the extent practical with the limitations of design, geometry, and materials of construction of the components.

** The period of 3-1/3 years for scheduled inspection of 1. above may be adjusted to coincide with the plants' regular 3-1/3 years period for inspections.

*** Table 4-2 of the study "Analysis of Pipe Breaks Inside Containment", June, 1974, submitted by Jersey Central Power and light by letter dated July 15, 1974, lists the postulated pipe break locations that have high stress levels.

cc:

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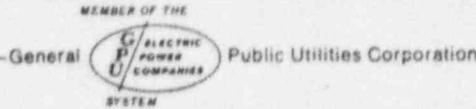
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Jersey Central Power & Light Company



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February 7, 1975



Mr. K. R. Goller
Assistant Director for Operating Reactors
Division of Reactor Licensing
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Dear Mr. Goller:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Snubber Service Life and Reliability

In his October 1, 1973 letter, Mr. Donald J. Skovholt requested the submittal of a proposed program to improve snubber (i.e., hydraulic check and sway arrestor) service life and reliability and proposed Technical Specification changes to incorporate a snubber surveillance program. This request was accompanied by the specification to replace all snubber seal material with "material demonstrated to be compatible with the hydraulic fluid at the operating environment," and the specification of snubber inspection intervals (i.e., a 120-day maximum inspection interval for snubbers inaccessible during reactor operation and a 30-day maximum inspection interval for snubbers accessible during reactor operation).

During the September 1973 shutdown of the Oyster Creek Nuclear Generating Station, all snubbers within the Oyster Creek drywell and most of the snubbers in the Reactor Building were rebuilt with seals made of molded polyurethane, viton, and ethylene propylene. In December of 1973, General Electric Company reported that snubber seal tests indicated that ethylene propylene (EP) seal material was best suited for use in Bergen-Paterson snubbers. Additional tests by the Packer Seal Company demonstrated the ability of EP seal material to withstand the operating environment of the drywell (ref. Mr. D. A. Ross's letter of November 8, 1974 to Mr. K. R. Goller on "Snubber Temperature and Radiation Environment"). A program to rebuild snubbers with EP seals was started, and at present all drywell snubbers contain only EP seals and Reactor Building snubbers have been rebuilt to a large extent with EP seals. To date, the EP seal performance has been excellent. The detailed inspection procedures presented in the letter of December 7, 1973 from Mr. D. A. Ross, Manager of Generating Stations-Nuclear, to Mr. A. Giambusso have shown that no snubbers have failed

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due to EP seal deterioration. The failures of snubbers containing EP seals have been the result of mechanical failures such as main piston rod burrs cutting the main cylinder shaft U-cup. (Ref. Abnormal Occurrence Report No. 50-219/74-40.) Rebuilding and inspection procedures have been modified to identify and minimize such mechanical failures. The incorporation of the EP seals in the snubbers has significantly improved snubber service life and reliability. Therefore, inspections of those snubbers in the drywell will henceforth be done only when the drywell must be entered and the snubber inspection has not been performed within the previous 120 days. Defective units will be repaired or replaced before returning to power. Only EP seals will be used in repairing and rebuilding these units. Snubbers that are not in the drywell and are not accessible during reactor operation will be inspected when they are accessible but not more frequently than 120-day intervals. Defective units will be replaced or repaired only with EP seals.

Snubbers in the Reactor Building (i.e., those accessible during reactor operation) will be inspected at least every 60 days. This inspection will include a fluid level determination and a general visual examination. Units leaking fluid severely will be removed to determine the cause of the leakage. Repaired and/or rebuilt replacement units for the Reactor Building snubbers will contain only EP seals except for the main shaft packing seal. EP main shaft packing seals are not available for some of the snubber models currently in use in the Reactor Building. Operating experience has shown that this 60-day inspection interval is sufficient to detect conditions that could lead to snubber inoperability (e.g., leaking).

The current snubber surveillance program is part of the periodic Oyster Creek maintenance activities. This new inspection program (i.e., inspection during drywell accessibility if not performed within previous 120 days, etc.) is currently being included in the Oyster Creek Preventive Maintenance Program. It is felt that this type of inspection program is best suited for the maintenance program rather than the Technical Specifications. Its inclusion in the Preventive Maintenance Program safeguards the proper implementation of the inspection program. A proposed Technical Specification change to incorporate the snubber inspections into the Oyster Creek Technical Specifications is therefore not included.

While tests and experience have shown that the EP seal material is a viable solution to the snubber seal deterioration problem, Jersey Central Power & Light Company believes that a better solution is the replacement of the hydraulic snubbers with mechanical units. Analysis and tests have shown that the seismic response characteristics of the mechanical snubbers are equivalent or better than those of the hydraulic snubbers, and it, of course, does not have the seal deterioration problem. The Generation Engineering Department of Jersey Central Power & Light Company, therefore, is in the process of purchasing mechanical snubbers. It is anticipated that procurement procedures will be completed so that some of the drywell hydraulic snubbers can be replaced with mechanical units during the Spring 1975 Refueling Outage. When this is done, those units removed from the drywell (i.e., those containing EP seals only), will be used

Mr. Goller

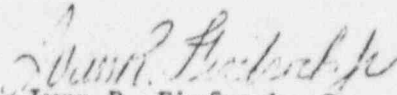
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February 7, 1975

to replace the snubbers in the Reactor Building. This will allow the surveillance interval for those Reactor Building snubbers containing all EP seals to be increased from 60 days to 120 days or greater.

Functional checks of the mechanical units in the drywell will be made in accordance with the specification of the Oyster Creek Station Inservice Inspection Program.

Very truly yours,


Ivan R. Finfrock, Jr.
Vice President

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