



GPU Nuclear Corporation

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Writer's Direct Dial Number:

October 16, 1984

Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Crutchfield:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
SEP Topic III-5B Pipe Break Outside Containment

The Oyster Creek isolation condenser steam lines have two automatic isolation valves outside and adjacent to the drywell. A break between these valves with a failure of the first isolation valve, or a break between the second valve and the condenser resulting in pipe whip such that the isolation valves would not close, would both result in a LOCA outside containment. The physical arrangement and space availability preclude installation of restraints or an isolation valve inside the drywell.

GPU Nuclear has submitted a fracture mechanics analysis which demonstrates that through-wall cracks in the isolation condenser supply and return piping would remain stable under severe pipe pressure loading and rotational stresses. An instantaneous pipe break would not occur.

During the integrated assessment of the subject topic, GPU Nuclear agreed to perform an analysis to determine a proper leak detection method for the emergency condenser lines. The attached report describes the analysis performed and is entitled "Crack Growth and Leak Rate Assessment of the Oyster Creek Emergency Condenser System Piping Outside Containment Below the 95 foot Elevation."

The results of the analysis show that leak rates from postulated cracks are sufficiently high enough to use visual monitoring as an acceptable method of leak detection. Additionally, sufficient time exists to take appropriate actions (i.e., shutdown or isolate the affected condenser) between the time of leak detection and the time that a crack would grow to an unstable length.

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The Oyster Creek Technical Specification will be revised, following the receipt of an SER on this topic, to require a visual surveillance of the supply and return lines of the Emergency Condenser System once every twenty-four (24) hours.

Very truly yours,



J. B. Fiedler
Vice President and Director
Oyster Creek

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cc: Administrator
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NRC Resident Inspector
Oyster Creek Nuclear Generating Station
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