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Date of Occurrence

The improper installation of the Hydraulic Control Units was determined to be reportable on August 22, 1986.

Identification of Occurrence

An analysis was performed on the 80 improperly installed HCUs. It was determined that these HCUs do not meet the original design criteria for Seismic Class I equipment as is stated in the Oyster Creek Final Safety Analysis Report (FSAR). This discrepancy is reportable under 10CFR50.73(a)(2)(ii)(B).

Conditions Prior to Occurrence

At the time of the determination, the plant was shutdown for refueling. The condition of the 80 HCUs has existed since initial plant startup.

Description of Occurrence

A concern was raised in April of 1986 regarding the method used to anchor many of Oyster Creek's Control Rod Drive Hydraulic Control Units. These units supply the Control Rod Drives (CRDs) with high pressure water from the CRD pumps for normal operation and act as a high pressure water source for the reactor scram function. They are classified as Seismic Class I.

The HCUs were not installed as specified by the installation drawing. The drawing specifies that the units are to be belted in place; however, eighty (80) of the 137 units are held in place by four (4) small steel plates welded at the bolting hole locations and then welded to a large steel base plate. The steel base plate is anchored to the Reactor Building floor.

A design review was conducted on the current configuration. The analysis shows that the existing method of anchoring the 80 affected HCUs does not meet the minimum requirements for a design basis earthquake as is stated in the Oyster Creek FSAR.

Apparent Cause of Occurrence

The cause of this problem is an installation field change that was not incorporated into the design drawings, and not analyzed for seismic qualification during original plant construction.

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Analysis of Occurrence and Safety Assessment

The failure of the HCU supports during a seismic event may have rendered the HCUs inoperable and therefore placed the plant in an unanalyzed condition. With all HCUs totally inoperable plant shutdown can be achieved using the Standby Liquid Control system. This system is Seismic Class I and is designed to bring the reactor to a shutdown condition at any time in core life independent of control rods.

Additionally, if the piping attached to the HCUs were ruptured, a small break loss of coolant accident would result inside the Secondary Containment due to reactor water leaking past the CRD seals and out of the break.

Corrective Action

The Hydraulic Control Unit supports will be upgraded such that a safe shutdown with control rods can be achieved during a design basis earthquake. The upgrade will be performed prior to startup from the current refueling outage.

Failure Data

Not Applicable

(0231A)



GPU Nuclear Corporation

Post Office Box 388 Route 9 South Forked River, New Jersey 08731-0388 609 971-4000 Writer's Direct Dial Number:

September 22, 1986

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station Docket No. 50-219 Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER) No. 86-022.

Very truly yours,

ela)

Peter B. Fiedler Vice President and Director Oyster Creek

PBF:BP:dam(0231A) Enclosures

cc: Dr. Thomas E. Murley, Administrator Region I U.S. Nuclear Regulatory Commission 631 Park Avenue King of Prussia, PA 19406

> Mr. Jack N. Donohew, Jr. U.S. Nuclear Regulatory Commission 7920 Norfolk Avenue, Phillips Bldg. Bethesda, MD 20014 Mail Stop No. 314

NRC Resident Inspector Oyster Creek Nuclear Generating Station Forked River, NJ 08731