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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

Docket Nos. 50-277
50-278

JAN 31 1980

Philadelphia Electric Company
ATTN: Mr. S. L. Daltroff
Vice President
Electric Production
2301 Market Street
Philadelphia, Pennsylvania 19101

Gentlemen:

This Information Notice is provided as an early notification of a possibly significant matter. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If further NRC evaluations so indicate, an IE Circular or Bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter please contact this office.

Sincerely,


Boyce H. Grier
Director

Enclosures:

1. IE Information Notice No. 80-03
2. List of Recently Issued IE Information Notices

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ENCLOSURE 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

SSINS No.: 6870
Accession No.:
7912190666

IE Information Notice No. 80-03
Date: January 31, 1980
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MAIN TURBINE ELECTROHYDRAULIC CONTROL SYSTEM

Description of Circumstances:

On September 6, 1979, while performing a routine startup of the Trojan Nuclear Plant, a speed control problem was encountered during warmup of the General Electric turbine and increase of turbine speed to normal operating speed (1800 RPM). Technicians were notified and trouble shooting in accordance with the technical manual was commenced to resolve the apparent oscillation between the primary and backup speed control circuits which was hindering normal turbine startup operations. The technical manual indicates that it is permissible to remove either the primary or backup low value gate circuits which contain speed and acceleration error amplifiers. Upon removal of the primary low value gate circuit card, the backup card amplifiers, coming from a saturated condition, became the controlling circuit. During the shift in control circuits (primary to backup), the speed/acceleration error signal went to maximum which resulted in a full open signal to the turbine control valves. Under existing plant conditions this appeared to the safety injection system as a major steam break downstream of the main steam isolation valves which resulted in a safety injection system actuation and reactor trip.

The Electrohydraulic Control System (EHC) technical manual indicated that slight load changes are likely when a low value gate card is removed. The effect on an unloaded turbine appears to be much more significant and tests conducted by Trojan personnel indicate that the transient is initiated whether the turbine is at a set speed or in an acceleration mode to a set speed. Discussions with General Electric personnel by the licensee have been initiated in an attempt to verify the phenomenon observed and, if applicable, alert other facilities which operate a turbine with a MK 1 EHC System regarding the potential operation of the control valves when trouble shooting the speed control unit in accordance with existing instructions.

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ENCLOSURE 2

IE Information Notice No. 80-03

Date: January 31, 1980

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RECENTLY ISSUED IE INFORMATION NOTICES

| Information Notice No. | Subject | Date Issued | Issued to |
|------------------------|---|-------------|---|
| 79-28 | Overloading of Structural Elements Due to Pipe Support Loads | 11/16/79 | All Power Reactor Facilities with an Operating License (OL) or Construction Permit (CP) |
| 79-29 | Loss of Nonsafety Related Reactor Coolant System Instrumentation During Operation | 11/19/79 | All Power Reactor Facilities with an OL or CP |
| 79-30 | Reporting of Defects and Noncompliances, 10 CFR Part 21 | 12/6/79 | All Power Reactor Facilities with an OL or CP |
| 79-31 | Use of Incorrect Amplified Response Spectra (ARS) | 12/13/79 | All Power Reactor Facilities with an OL or CP |
| 79-32 | Separation of Electrical Cables for HPCI and ADS | 12/21/79 | All Power Reactor Facilities with an OL or CP |
| 79-33 | Improper Closure of Primary Containment Access Hatches | 12/21/79 | All Power Reactor Facilities with an OL or CP |
| 79-34 | Inadequate Design of Safety-Related Heat Exchangers | 12/31/79 | All Power Reactor Facilities with an OL or CP |
| 79-35 | Control of Maintenance and Essential Equipment | 12/31/79 | All Power Reactor Facilities with an OL or CP |
| 79-36 | Computer Code Defect in Stress Analysis of Piping Elbow | 12/31/79 | All Power Reactor Facilities with an OL or CP |
| 79-37 | Cracking in Low Pressure Turbine Discs | 12/31/79 | All Power Reactor Facilities with an OL or CP |
| 80-01 | Fuel Handling Events | 1/4/80 | All Power Reactor Facilities with an OL or CP |
| 80-02 | 8X8R Water Rod Lower End Plug Wear | 1/25/80 | All BWR Facilities with an OL or CP |