ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649

October 23, 1973

Mr. James P. O'Reilly, Director
Directorate of Regulatory Operations
Region I
U. S. Atomic Energy Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Subject: Abnormal Occurrences:
73-9 Excessive Cooldown Rate
73-10 Malfunction of Safety Injection Pump Suction Transfer from Boric Acid Storage Tanks to Refueling Water Storage Tank
R. E. Ginna Nuclear Power Plant, Unit No. 1

Dear Mr. O'Reilly:

In accordance with Technical Specification Section 6.6.2a, Abnormal Occurrence Reports, which requires notification by telephone and telegraph, the following reports are submitted.

Abnormal Occurrence 73-9 - Reactor Coolant Cooldown Rate in excess of Technical Specification limits.

Loss of outside power to Ginna Station occurred on October 21, 1973 at approximately 0552 hours resulting in a reactor trip.

It is theorized that an electrical disturbance on the instrument busses within the plant was created during the loss of power. This disturbance caused the overpower delta temperature reactor trip signal to trip the reactor. The loss of outside power also generated a turbine trip signal.

Disturbances on the instrument buses or the ensuing loss of two of four instrument buses due to the loss of outside power also generated a "low low steam generator level" condition in both steam generators. One result of this

signal is the automatic start of the steam driven auxiliary feedwater pump. The discharge valves to this pump are normally in the open position.

The automatic start of this pump resulted in ambient temperature water from the condensate storage tanks being pumped into the steam generators. The cold water injected into the steam generators cooled down the reactor coolant system to the point that the safety injection signal was generated by a combination of low pressurizer pressure and level.

Investigation into the cooldown rate as indicated by the strip chart recorders revealed that the cooldown rate as defined in the Technical Specifications, Section 3.1.2.1 Cooldown Item b., may have been exceeded. The cooldown rate is difficult to determine accurately due to the loss of instrument busses which disabled various indicators and recorders for a short period of time. Reconstruction of the information on the recorders when power was restored indicated that the change in temperature was approximately 85°F in approximately 10 minutes. This is in excess of the 100°F/hr. limit and is reportable as an abnormal occurrence as defined in Section 1.9b, "Violation of a limiting condition for operation established in the Technical Specifications."

The PORC met and discussed the problem. Westinghouse was contacted to determine what possible deleterious effect the rapid cooldown could have had on the reactor vessel. Their initial analysis and comparison with similar instances at other facilities indicate stress levels to be acceptable and the effect of this one cooldown cycle to be insignificant in the allowable fatigue life of the vessel.

Abnormal Occurrence 73-10 - Malfunction of Safety Injection Pump Suction transfer from Boric Acid Storage Tanks to Refueling Water Tank.

After the loss of outside power and subsequent initiation of the safety injection signal, the transfer of the safety injection pumps suction from the Boric Acid Storage Tanks to the refueling water storage tank may have occurred prematurely.

The set point is such that the transfer should occur at 10% level in the Boric Acid Storage Tanks in conjunction with a safety injection signal. It is believed that the transfer occurred at approximately 50% level. Chemistry analysis and volume inventory analysis indicates that no more than 700 gallons of 12% Boric Acid was delivered to the reactor coolant system. The cause for the malfunction has not been determined at this time. This incident is reportable as an abnormal occurrence as defined in the Technical Specification Section 1.9d, "Failure of one or more components of an engineered safety feature or plant protection system that causes or threatens to cause the feature or system to be incapable of performing its intended function."

The PORC met and discussed the problem. Investigation is continuing to determine the cause.

The station is being maintained in the hot shutdown condition. Work is in progress to:

1. Investigate the reason for the initial loss of electrical power and disturbances on the instrument busses.
2. Investigate the cause of the premature closing of the Boric Acid Storage Tank Valves.

In addition, the following work is being accomplished:

1. Change instrument and control setpoints for 2000 psia operation.
2. Installation of additional pressure taps on main steam line in connection with continuing investigation of pipe vibration.
3. Conduct other station maintenance.

Very truly yours,

Charles E. Platt, Superintendent
Ginna Station

xc: Mr. John F. O'Leary

MEMO ROUTE SLIP

Form AEC-93 (Rev. May 14, 1947) AECM 0240

See me about this. | For concurrence. | For action.
Note and return. | For signature. | For information.

TO (Name and unit)	INITIALS	REMARKS
H. D. Thornburg, Chief, FS&EB	DATE	Licensee: Rochester Gas & Electric Corporation Docket No.: 50-244 Abnormal Occurrence: AO 73-9 & AO-73-10
TO (Name and unit) RO:HQ (5) DR Central Files (1) Regulatory Standards Dir. of Licensing (13)	INITIALS DATE (3)	REMARKS The attached report from the subject licensee is forwarded in accordance with RO Manual Chapter 1000.
TO (Name and unit) RO Files	INITIALS DATE	REMARKS The action taken by the licensee is considered appropriate. Followup will be performed during the next inspection as appropriate. Copies of
FROM (Name and unit) J. C. R. Oberg for A. B. Davis, Senior Reactor Inspector, PWR Section	REMARKS	the report have been forwarded to the PDR, Local PDR, NSIC, DTIE and State representatives. The licensee will submit a 10 day written report to Licensing.
PHONE NO.	DATE 10/26/73	

USE OTHER SIDE FOR ADDITIONAL REMARKS

GPO : 1971 O - 443-467