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The Southern electric system

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June 9, 1988

U.S. Nuclear Regulatory Commission
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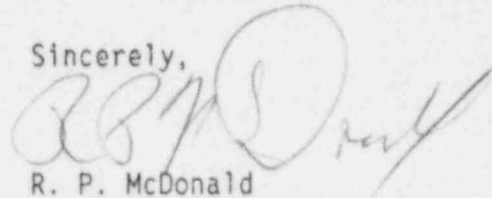
PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
REQUEST FOR ADDITIONAL INFORMATION
EMERGENCY PLAN

Gentlemen:

By letter dated April 25, 1988, Georgia Power Company (GPC) received a request for additional information (RAFI) on Revision 8 of the Plant Hatch Emergency Plan. Specifically, the NRC's review of Revision 8 revealed certain items which differ from the guidelines of NUREG-0654. The requested additional information justifying the apparent inconsistencies is included in the Enclosure.

If you have questions in this regard, please contact our office at any time.

Sincerely,



R. P. McDonald

GKM/cd

Enclosure:

1. Response to Request for Additional Information (RAFI) - Plant Hatch Emergency Plan, Revision 8.

c: (See next page.)

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U. S. Nuclear Regulatory Commission
June 9, 1988
Page Two

c: Georgia Power Company
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ENCLOSURE

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (RAI)
PLANT HATCH EMERGENCY PLAN, REVISION 8

The following is Georgia Power Company's (GPC) response to the Nuclear Regulatory Commission's (NRC) request for additional information on Revision 8 of the Plant Hatch Emergency Plan.

QUESTION 1 (Enclosure 1).

Section D, Table D-1: The event classification tables for the Notification of Unusual Event (NOUE) do not contain the following initiating conditions:

- (a) Loss of engineered safety feature or fire protection system function requiring shutdown by Technical Specifications, and
- (b) Indications or alarms on process or effluent parameters not functional in Control Room to an extent requiring plant shutdown or other significant loss of assessment or communication capability.

This is inconsistent with NUREG-0654, Appendix 1, Pages 1-5, Items 9 and 11.

RESPONSE:

The Plant Hatch Emergency Plan (both Revision 7 and Revision 8) does not contain the emergency action levels (EALs) stated in the aforementioned paragraph. The purpose of NUREG-0654 was to provide a common reference and guidance source for the development and review of Emergency Plans. Georgia Power Company has patterned Revision 8 of our plan after the NUREG, but is not specifically committed to NUREG-0654. In a letter dated July 5, 1984, the NRC stated they had reviewed Revision 7 of the plan against the standards in 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, and found Revision 7 to be acceptable. In light of the previous acceptability, the NUREG-0654 EALs (Appendix 1, Items 9 and 11) were not included in Revision 8.

ENCLOSURE (Continued)

RESPONSE FOR ADDITIONAL INFORMATION (RAI)
PLANT HATCH EMERGENCY PLAN, REVISION 8

QUESTION 2 (Enclosure 1):

Section D, Table D-2: Two initiating conditions listed in the emergency classification tables for the Alert were rewritten to include the duration of the event as a condition for event classification; however, the time used is not specific to meet the intent of NUREG-0654, Appendix 1, for events less than or equal to 15 minutes durations. The two conditions are:

- (a) Loss of offsite power and loss of all onsite AC power for less than 15 minutes, and
- (b) Loss of vital onsite DC power for less than 15 minutes.

Both conditions are inconsistent with NUREG-0654, Appendix 1, Pages 1-9, Items 7 and 8, and previous Hatch EALs.

RESPONSE:

Initiating Conditions (IC) 4 and 5 to Table D-2 of the Plant Hatch Emergency Plan, Revision 8, were revised to include a clarifying timeframe associated with each IC. This time frame (less than 15 minutes) results in an alert declaration. Revision 7 of the Emergency Plan did not include any timeframe for the loss of power for satisfying the alert declaration criteria. Table D-3, IC 4 and 5, in both Revisions 7 and 8 of the Plant Hatch Emergency Plan, have a qualifying timeframe of greater than 15 minutes for declaration of the site area emergency.

GPC's premise was that the Emergency Director would not de-escalate or terminate the emergency between the alert (less than 15 minutes) and the site area emergency (greater than 15 minutes) or refrain from classification during the timeframe in question (15 minutes exactly). However, this is confusing, and GPC will revise IC 4 and 5 of Table D-2 to reflect "less than or equal to" in the current revision of the plan.

QUESTION 3 (Enclosure 1):

Section D, Table D-3: The event classification tables for the site area emergency do not contain as an initiating condition, the complete loss of any function needed for plant hot shutdown. This is inconsistent with NUREG-0654, Appendix 1, pages 1-13, Item 8.

ENCLOSURE (Continued)

RESPONSE FOR ADDITIONAL INFORMATION (RAFI)
PLANT HATCH EMERGENCY PLAN, REVISION 8RESPONSE:

Revision 7 to the Plant Hatch Emergency Plan, Table D-3, IC 6, "Complete Loss of any Function Needed for Plant Hot Shutdown" had an Equipment Status of "Inability to Shut Down by Control Rods." Revision 8, Table D-3, IC 11, which states: "Transient Requiring Operation of Shutdown Systems with Failure to Scram (continued power generation, but no core damage immediately evident)," has an Equipment Status of "valid scram signal and neutron count rate indicating reactor is critical and squib valve loss-of-continuity alarm, pump running indication, decreasing tank level." The equipment status of Revision 8, IC 11, presents the same information included in Revision 7, IC 6, but in a more descriptive manner. Because equipment status for both was the same and both ICs result in the declaration of a site area emergency, two different ICs were deemed unnecessary; therefore, IC 6 was removed and IC 11 remained.

QUESTION 1 (Enclosure 2):

Section D, Table D-2 (Sheet 1 of 4): In the event classification table for the Alert (Initiating Condition 3), the area radiation monitor (ARM) high alarm setpoint values were changed for the Reactor Building and Turbine Building from greater than 15 mr/hr to greater than 50 mr/hr; and the high main steam line (MSL) tunnel temperature value was changed from greater than or equal to 200 degrees F to greater than or equal to 194 degrees F.

RESPONSE:

Plant Hatch has implemented a feedwater hydrogen injection system on Unit 1 to reduce the free oxygen in the reactor coolant system and control intergranular stress corrosion cracking. This injection system results in a large increase in the normal background main steam line (MSL) radiation and would result in higher readings if a significant steam line leak occurred outside containment. Because of this increase in radiation, an increase in ARM setpoints was deemed appropriate. The hydrogen injection system has been installed in Unit 2, but hydrogen injection has not started as of this date. Because Unit 2 is not currently injecting hydrogen and the ARM setpoints have not been changed, the values specified in Revision 8 of the Emergency Plan will be returned to the Revision 7 values until the hydrogen injection system is implemented on both units. The MSL tunnel temperature setpoint of 194 degrees F is the actual setpoint listed in the Technical Specifications (TS).

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RESPONSE FOR ADDITIONAL INFORMATION (RAI)
PLANT HATCH EMERGENCY PLAN, REVISION 8QUESTION 2 (Enclosure 2):

Section D, Table D-2 (Sheet 4 of 4): In the event classification table for the Alert (Initiating Condition 15), the area radiation monitor setpoint values were changed for the refueling floor ARM high alarm and the refueling floor vent filter high-radiation alarm from greater than 15 mr/hr to greater than 50 mr/hr and greater than 15 mr/hr to greater than 20 mr/hr respectively.

RESPONSE:

Initiating condition 15 of Table D-2 has three parameters listed for indicators of a fuel handling accident. Of the three parameters listed, the refueling floor vent exhaust monitor setpoint of 20 mr/hr is defined by TS and initiates a secondary containment isolation. The reactor building ventilation exhaust radiation monitoring subsystem is safety-grade, and would provide an accurate indication of a fuel handling accident. The refueling floor ARMs alert level equipment status had a value of 15 mr/hr specified in Revision 7 of the Emergency Plan. This value could potentially result in an alert without ever reaching the TS isolation setpoint associated with the refueling floor vent exhaust. Revision 8 of the EP changed the ARM value to 50 mr/hr. The value was chosen to be sufficiently high to avoid spurious alarms from any one of the several refueling floor ARMs, but low enough to give an indication of a refueling floor accident. The refueling floor ARMs do not override the other 2 parameters which indicate a refueling floor accident, but the 50 mr/hr setpoint will serve to minimize the potential for declaration of an alert for a value not commensurate with the alert emergency class. The refueling floor vent filter alarm setpoint of 20 mr/hr will serve as an indication that the refueling floor vent exhaust monitor trip has not caused secondary containment isolation since the filter alarm is downstream of the ventilation system isolation point.

QUESTION 3 (Enclosure 2):

Section D, Table D-3 (Sheet 4 of 4): In the event classification table for Site Area Emergency (Initiating Condition 14), changes were made to the equipment status and parameter values. The high flow drywell drain sump alarm was deleted from the equipment status listing, and the reactor

ENCLOSURE

RESPONSE FOR ADDITIONAL INFORMATION (RAI)
PLANT HATCH EMERGENCY PLAN, REVISION 8QUESTION 3 (Continued):

low level initiation alarm was replaced by the reactor low-low-low level alarm. Changes to instrument setpoint values included the drywell high-pressure initiation alarm from greater than 1.8 psig and increasing, to greater than 1.92 psig and increasing; in addition, the reactor low level initiation alarm from less than -38 inches and decreasing to reactor low-low-low level alarm less than -113 inches and level decreasing with available makeup pumps running and discharging to vessel.

RESPONSE:

Table D-3, IC 14 (Revision 8 of the Plant Hatch Emergency Plan) delineates "Known LOCA greater than all available makeup pumps capacity." The changes in the equipment status listing were made to more accurately reflect the conditions of a LOCA greater than available makeup pump capacity, and include approved amendments which modify the TS setpoints. A high drywell pressure of >1.92 psig is a TS value and serves as the primary indication of a LOCA. It provides a reactor trip signal and initiates the start sequence of both high and low pressure injection systems. Only the high pressure systems will initially inject if reactor pressure is high. When the reactor water level is -113 inches, and drywell pressure is >1.92 psig, the automatic depressurization system (ADS) for the reactor coolant system starts its 120-second timer. At the end of that time, if any core spray or residual heat removal (RHR) pump is running, the reactor vessel is depressurized, and low-pressure safety injection will take place. Any one of the six low pressure pumps provide greater make-up capability than the safety-grade high pressure injection systems. Therefore, a LOCA greater than makeup pump capacity can only be evidenced when the ADS actuates, and water level cannot be maintained with all available (high and/or low pressure) makeup pumps running.