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Georgia Power

*the southern electric system*

NED-84-369

July 6, 1984

Director of Nuclear Reactor Regulation  
Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKET 50-321  
OPERATING LICENSE DPR-57  
EDWIN I. HATCH NUCLEAR PLANT UNIT 1  
EQUIPMENT QUALIFICATION PROGRAM DEADLINE  
EXTENSION REQUEST FOR ATTS

Gentlemen:

In the past week Georgia Power Company (GPC) decided not to replace the Plant Hatch Unit 1 Recirculation System piping during the upcoming refueling outage. The decision to replace the recirculation system piping had been under evaluation for some time. Our May 31, 1984, submittal on future recirculation system pipe weld inspections and justification for continued operation with weld overlays contains many of the elements that went into that decision.

The upcoming Unit 1 outage would now begin about the first of October and last approximately ten weeks. Consequently, under a shortened refueling outage, as is now envisioned, GPC will be unable to meet the regulatory requirement to complete installation of certain qualified electrical equipment. GPC believes that it has been in the forefront of the industry effort to meet the deadline requirements of 10 CFR 50.49(g) and has aggressively pursued bringing Plant Hatch into compliance with the environmental qualification rule; however, we respectfully request an extension of the qualification deadline until November 30, 1985, as detailed below so that the necessary equipment installation can be completed during the scheduled Unit 1 refueling outage next year.

As part of the effort to qualify electrical equipment, GPC is planning to install a fully qualified General Electric Company Analog Transmitter Trip System (ATTS) at Plant Hatch. This new system replaces a number of Reactor Protection System and other instruments which could not be practicably qualified to GPC's satisfaction. Some preliminary work for this installation is currently underway; however, the bulk of this project can only be safely completed with the plant in a cold shutdown condition.

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Current ATTS design calls for installation of 170 transmitters and Resistance Temperature Detectors (RTDs) on Unit 1. GPC has determined that only 31 of these instruments can be completely installed and functionally tested during the allotted Fall 1984 outage time. GPC has reviewed the NRC requirements and the Hatch commitments which are affected by ATTS installation and has determined which instruments should be installed during the upcoming outage. Enclosure 1 contains a list of the ATTS trip units and transmitters which will be installed and operational at the end of the Fall 1984 Unit 1 refueling outage, barring any unforeseen difficulties.

Following the completion of the currently scheduled Unit 1 Fall 1984 refueling outage, GPC expects that 139 ATTS transmitters and RTDs and their associated trip units will not have been installed (listed in Enclosure 2). Of these, 127 are being installed as qualified replacements for equipment items which could not practicably meet the requirements of 10 CFR 50.49. The next opportunity for installation of this remaining ATTS equipment will be during the Unit 1 refueling outage scheduled to begin in Fall 1985. Therefore, GPC requests that a qualification deadline extension to November 30, 1985 be granted, under the provisions of 10 CFR 50.49(g), for the existing Hatch-1 equipment items noted with "\*" in Enclosure 2 to this letter.

GPC has made a diligent effort to meet the requirements of 10 CFR 50.49 within the time prescribed in paragraph (g) of that rule. Plant Hatch has embarked on an extensive program of backfitting and equipment replacement to ensure that all applicable equipment meets the intent of 10 CFR 50.49. In many cases GPC has performed costly and time-consuming replacement of equipment rather than relying on marginally-acceptable engineering analyses to prove that necessary equipment would perform its intended function during an accident.


The large equipment replacement effort which GPC has undertaken has been fraught with the types of schedule delays and other problems which plague the nuclear equipment procurement process. The installation of Unit 1 ATTS was originally scheduled for the last Unit 1 refueling outage. This was precluded by delays in the qualification and receipt of nearly all ATTS equipment. Several problems which occurred during testing of critical components necessitated a change in manufacturer for some of the system transmitters. In fact, qualification testing of the components was not finalized until December 1983. In addition, the on-going installation of a similarly large ATTS on Hatch-2 has severely reduced the manpower available for preliminary design and installation work on Hatch-1. (Plant Hatch Unit 2 is currently in a six month outage and will complete ATTS installation prior to return to service.)

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GPC believes that the superiority of ATTS over the equipment it replaces in terms of expected instrument performance, as well as qualification assurance, outweighs the problems experienced during procurement and installation. The long-term gain in overall plant safety and performance expected from ATTS justifies the short-term extension of the qualification deadline; also, GPC has submitted "Justifications for Continued Operation" of the plant using the instruments which ATTS will replace.

If necessary, GPC wishes to meet with the NRC staff regarding this extension request on a mutually agreeable date as soon as possible. GPC has proposed July 17, 1984 as a potential date for such a meeting.

Sincerely yours,



L. T. Guwa

CBS/mb

Enclosures

xc: J. T. Beckham, Jr.  
H. C. Nix, Jr.  
J. P. O'Reilly (NRC- Region II)  
Senior Resident Inspector

ENCLOSURE 1

INSTRUMENT LOOP INFORMATION

<u>VARIABLE NAME</u> (a)	<u>TRIP UNIT</u> <u>MPL NO.</u>	<u>TRANSMITTER</u>		<u>ENGINEERING</u> <u>SAFEGUARD</u> <u>DIVISION</u>	<u>GENERIC NAME</u>	<u>MANUFACTURER</u>	<u>MODEL NO.</u> (d)
		<u>OLD</u> <u>MPL NO.</u>	<u>NEW</u> <u>MPL NO.</u>				
11) Reactor Vessel Water Level Low (Level 3)	B21-N695 A,B	B21-N042 A,B	B21-N095 A,B	ECCS	Differential Pressure Transmitter	Barton	764
12) Reactor Vessel Water Level Indication	---	B21-N027	B21-N027	ECCS	Differential Pressure Transmitter	Barton	764
13) Reactor Vessel Steam Dome Pressure Low	B21-N690 A,D,E,F	B21-N021 A,D,E,F	B21-N090 A,D,E,F	ECCS	Pressure Transmitter	Barton	763

NOTES

- (a) Transmitters having the same MPL No. are the same equipment providing several trip functions.
- (b) To be included in the Unit 1, 1984 outage is all of the low low set logic supporting hardware (ie: pressure switches, accumulators)
- (c) The lowered MSIV closure Reactor Vessel Water Level Trip Setpoint Modification is included.

ENCLOSURE 1

INSTRUMENT LOOP INFORMATION

<u>VARIABLE NAME</u> (a)	<u>TRIP UNIT</u> <u>MPL NO.</u>	<u>TRANSMITTER</u>		<u>ENGINEERING</u> <u>SAFEGUARD</u> <u>DIVISION</u>	<u>GENERIC NAME</u>	<u>MANUFACTURER</u>	<u>MODEL NO.</u> (d)
		<u>OLD</u> <u>MPL NO.</u>	<u>NEW</u> <u>MPL NO.</u>				
1) Low Low Set Arming Permissive (b)	B21-N620 A,B,C,D	---	B21-N120 A,B,C,D	ECCS	Pressure Transmitter	Rosemount	1153
2) Low Low Set Control Permissive (b)	B21-N621 A,B,C,D	---	B21-N120 A,B,C,D	ECCS	Slave	NA	NA
3) Low Low Set Control Permissive (b)	B21-N622 A,B,C,D	---	B21-N122 A,B,C,D	ECCS	Pressure Transmitter	Rosemount	1153
4) Reactor Vessel Water Level Low (Level 3)	B21-N680 A,B,C,D	B21-N017 A,B,C,D	B21-N080 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
5) Reactor Vessel Water Level High (Level 8)	B21-N693 A,B	B21-N017 A,B	B21-N093 A,B	ECCS	Differential Pressure Transmitter	Rosemount	1153
6) Reactor Vessel Water Level High (Level 8)	B21-N693 C,D	B21-N017 C,D	B21-N095 A,B	ECCS	Slave	NA	NA
7) Reactor Vessel Water Level Low (Level 1) (c)	B21-N681 A,B,C,D	B21-N024 A,B B21-N025 A,B	B21-N081 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
8) Reactor Vessel Water Level Low (Level 2)	B21-N682 A,B,C,D	B21-N024 A,B B21-N025 A,B	B21-N081 A,B,C,D	RPS	Slave	NA	NA
9) Reactor Vessel Water Level Low (Level 1)	B21-N691 A,B,C,D	B21-N031 A,B,C,D	B21-N091 A,B,C,D	ECCS	Differential Pressure Transmitter	Barton	764
10) Reactor Vessel Water Level Low (Level 2)	B21-N692 A,B,C,D	B21-N031 A,B,C,D	B21-N091 A,B,C,D	ECCS	Slave	NA	NA

## ENCLOSURE 2

INSTRUMENT LOOP INFORMATION

VARIABLE NAME <sup>(a)</sup>	TRIP UNIT MPL NO.	TRANSMITTER		ENGINEERING SAFEGUARD DIVISION	GENERIC NAME	MANUFACTURER	MODEL NO. <sup>(d)</sup>
		OLD MPL NO.	NEW MPL NO.				
1) Steam Tunnel* Temperature High	B21-N623 A,B,C,D	B21-N010 A,3,C,D	B21-N123 A,B,C,D	RPS	RTD	Weed	IA0D
2) Steam Tunnel* Temperature High	B21-N624 A,B,C,D	B21-N011 A,B,C,D	B21-N124 A,B,C,D	RPS	RTD	Weed	IA0D
3) Steam Tunnel* Temperature High	B21-N625 A,B,C,D	B21-N012 A,B,C,D	B21-N125 A,B,C,D	RPS	RTD	Weed	IA0D
4) Steam Tunnel* Temperature High	B21-N626 A,B,C,D	B21-N013 A,B,C,D	B21-N126 A,B,C,D	RPS	RTD	Weed	IA0D
5) Reactor Vessel* Pressure Low	B 1-N641 B,C	B21-N021 B,C	B21-N090 B,C	ECCS	Slave	NA	NA
6) Reactor Vessel Steam Dome Pressure High	B21-N678 A,B,C,D	B21-N023 A,B,C,D	B21-N078 A,B,C,D	RPS	Pressure Transmitter	Rosemount	1153
7) Reactor Vessel Steam Dome Pressure Low	B31-N679 A,D	B31-N018 A,B	B31-N079 A,D	RPS	Differential Pressure Transmitter	Barton	764
8) Reactor Shroud* Water Level Low (Level 0)	B21-N685 A,B	B21-N036 B21-N037	B21-N085 A,B	ECCS	Differential Pressure Transmitter	Barton	764
9) Main Steam Line A* Flow High	B21-N686 A,B,C,D	B21-N006 A,B,C,D	B21-N086 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
10) Main Steam Line B* Flow High	B21-N687 A,B,C,D	B21-N007 A,B,C,D	B21-N087 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764

## ENCLOSURE 2

INSTRUMENT LOOP INFORMATION

VARIABLE NAME <sup>(a)</sup>	TRIP UNIT MPL NO.	TRANSMITTER		ENGINEERING SAFEGUARD DIVISION	GENERIC NAME	MANUFACTURER	MODEL NO. <sup>(d)</sup>
		OLD MPL NO.	NEW MPL NO.				
11) Main Steam Line C* Flow High	B21-N688 A,B,C,D	B21-N008 A,B,C,D	B21-N088 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
12) Main Steam Line D* Flow High	B21-N689 A,B,C,D	B21-N009 A,B,C,D	B21-N089 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
13) Reactor Vessel* Pressure Low	B21-N690 B,C	B21-N021 B,C	B21-N090 B,C	ECCS	Pressure Transmitter	Barton	763
14) Drywell Pressure* High	C71-N650 A,B,C,D	C71-N002 A,B,C,D	C71-N050 A,B,C,D	RPS	Differential Pressure Transmitter	Barton	764
15) Heat Exchanger* Shell to Tube Differential Pressure Indicator	---	E11-N002 A,B	E11-N002 A,B	ECCS	Differential Pressure Transmitter	Barton	764
16) RHR Service Water Flow Indication	---	E11-N007 A,B	E11-N007 A,B	ECCS	Differential Pressure Transmitter	Barton	764
17) RHR System Flow* Indication	---	E11-N015 A,B	E11-N015 A,B	ECCS	Differential Pressure Transmitter	Barton	764
18) RHR Pump Discharge* Pressure High	E11-N655 A,B,C,D	E11-N016 A,B,C,D	E11-N055 A,B,C,D	ECCS	Pressure Transmitter	Barton	763
19) RHR Pump Discharge* Pressure High	E11-N656 A,B,C,D	E11-N020 A,B,C,D	E11-N056 A,B,C,D	ECCS	Pressure Transmitter	Barton	763

ENCLOSURE 2  
INSTRUMENT LOOP INFORMATION

<u>VARIABLE NAME</u> (a)	<u>TRIP UNIT</u> <u>MPL NO.</u>	<u>TRANSMITTER</u>		<u>ENGINEERING</u> <u>SAFEGUARD</u> <u>DIVISION</u>	<u>GENERIC NAME</u>	<u>MANUFACTURER</u>	<u>MODEL NO.</u> (d)
		<u>OLD</u> <u>MPL NO.</u>	<u>NEW</u> <u>MPL NO.</u>				
20) RHR Pump Flow* Low	E11-N682 A,B	E11-N021 A,B	E11-N082 A,B	ECCS	Differential Pressure Transmitter	Barton	764
21) Drywell Pressure* High	E11-N694 A,B,C,D	E11-N010 A,B,C,D	E11-N094 A,B,C,D	ECCS	Differential Pressure Transmitter	Barton	764
		E11-N011# A,B,C,D					
22) Core Spray Flow* Indication	---	E21-N003 A,B	E21-N003 A,B	ECCS	Differential Pressure Transmitter	Barton	764
23) Core Spray Pump* Discharge Flow Low	E21-N651 A,B	E21-N006 A,B	E21-N051 A,B	ECCS	Differential Pressure Transmitter	Barton	764
24) Core Spray Pump* Discharge Pressure High	E21-N652 A,B	E21-N009 A,B	E21-N009 A,B	ECCS	Pressure Transmitter	Barton	763
25) Core Spray Pump* Discharge Pressure High	E21-N655 A,B	E21-N008 A,B	E21-N055 A,B	ECCS	Pressure Transmitter	Barton	763
26) HPCI Pump* Pressure High	E41-N650	E41-N027	E41-N050	ECCS	Pressure Transmitter	Barton	763
27) HPCI Pump* Discharge Flow High	E41-N651	E41-N006	E41-N051	ECCS	Differential Pressure Transmitter	Barton	764
28) HPCI Pump* Flow Indication	---	E41-N008	E41-N008	ECCS	Differential Pressure Transmitter	Barton	764



ENCLOSURE 2  
INSTRUMENT LOOP INFORMATION

VARIABLE NAME (a)	TRIP UNIT MPL NO.	TRANSMITTER		ENGINEERING SAFEGUARD DIVISION	GENERIC NAME	MANUFACTURER	MODEL NO. (d)
		OLD MPL NO.	NEW MPL NO.				
29) HPCI Pump* Suction Pressure Low	E41-N653	E41-N010	E41-N053	ECCS	Differential Pressure Transmitter	Barton	764
30) HPCI Turbine Exhaust* Diaphragm Pressure High	E41-N655 A,B,C,D	E41-N012 A,B,C,D	E41-N055 A,B,C,D	ECCS	Differential Pressure Transmitter	Barton	764
31) HPCI Turbine Exhaust* Pressure High	E41-N656 B,D	E41-N017 A,B	E41-N056 B,D	ECCS	Pressure Transmitter	Barton	763
32) HPCI Steam Line* Differential Pressure High (+)	E41-N657 A,B	E41-N004 E41-N005	E41-N057 A,B	ECCS	Differential Pressure Transmitter	Barton	764
33) HPCI Steam Supply* Pressure Low	E41-N658 A,B,C,D	E41-N001 A,B,C,D	E41-N058 A,B,C,D	ECCS	Pressure Transmitter	Barton	763
34) HPCI Steam Line* Differential Pressure High (-)	E41-N660 A,B	E41-N004 E41-N005	E41-N057 A,B	ECCS	Slave	NA	NA
35) HPCI Torus Water* Level High	E41-N662 B,D	E41-N015 A,B	E41-N062 B,D	ECCS	Capillary Differential Pressure Transmitter	Barton	764 with Model 352 Capillary Sensors
36) HPCI Equipment* Ambient Temperature High	E41-N670 A,B	E41-N030 A,B	E41-N070 A,B	ECCS	RTD	Weed	1A0D
37) HPCI Pipe Room* Ambient Temperature High	E41-N671 A,B	E41-N046 A,B	E41-N071 A,B	ECCS	RTD	Weed	1A0D
38) RCIC Pump Discharge Pressure High	E51-N650	E51-N020	E51-N050	ECCS	Pressure Transmitter	Barton	763

ENCLOSURE 2  
INSTRUMENT LOOP INFORMATION

VARIABLE NAME (a)	TRIP UNIT MPL NO.	TRANSMITTER		ENGINEERING SAFEGUARD DIVISION	GENERIC NAME	MANUFACTURER	MODEL NO. (c)
		OLD MPL NO.	NEW MPL NO.				
39) RCIC Pump Flow* High and Low	E51-N651	E51-N002	E51-N051	ECCS	Differential Pressure Transmitter	Barton	764
40) RCIC Pump Flow Indication	---	E51-N003	E51-N003	ECCS	Differential Pressure Transmitter	Barton	764
41) RCIC Turbine Exhaust Pressure High	E51-N656 A,C	E51-N009 A,B	E51-N056 A,C	ECCS	Pressure Transmitter	Barton	763
42) RCIC Steam Line* $\Delta P$ High (+)	E51-N657 A,B	E51-N017 E51-N018	E51-N057 A,B	ECCS	Differential Pressure Transmitter	Barton	764
43) RCIC Steam Supply* Pressure Low	E51-N658 A,B,C,D	E51-N019 A,B,C,D	E51-N058 A,B,C,D	ECCS	Pressure Transmitter	Barton	763
44) RCIC Steam Line* $\Delta P$ High (-)	E51-N660 A,B	E51-N017 E51-N018	E51-N057 A,B	ECCS	Slave	NA	NA
45) RCIC Equipment* Ambient Temperature High	E51-N661 A,B	E51-N023 A,B	E51-N061 A,B	ECCS	RTD	Weed	1A0D
46) Torus Ambient* Temperature (no trip)	E51-N663 A,B,C,D	E51-N026 A,B,C,D	E51-N063 A,B,C,D	ECCS	RTD	Weed	1A0D
	E51-N664 A,B,C,D	E51-N027 A,B,C,D	E51-N064 A,B,C,D	ECCS	RTD	Weed	1A0D
47) Torus Ambient* Temperature High	E51-N666 A,B,C,D	E51-N025 A,B,C,D	E51-N066 A,B,C,D	ECCS	RTD	Weed	1A0D

ENCLOSURE 2  
INSTRUMENT LOOP INFORMATION

VARIABLE NAME <sup>(a)</sup>	TRIP UNIT MPL NO.	TRANSMITTER		ENGINEERING SAFEGUARD DIVISION	GENERIC NAME	MANUFACTURER	MODEL NO. <sup>(d)</sup>
		OLD MPL NO.	NEW MPL NO.				
48) Torus Differential* Temperature High	E51-N665 A,B,C,D	E51-N604 A,B,C,D	NA	ECCS	NA	NA	NA
49) RCIC Pump Suction Pressure Low	E51-N683#	E51-N006	E51-N083	ECCS	Differential Pressure Transmitter	Barton	764
50) RCIC Turbine Exhaust* Diaphragm Pressure High	E51-N685 A,B,C,D	E51-N012 A,B,C,D	E51-N085 A,B,C,D	ECCS	Differential Pressure Transmitter	Barton	764
51) Cleanup Flow to* Condenser Indication	---	G31-N012	G31-N012	ECCS	Differential Pressure Transmitter	Barton	764
52) Cleanup Flow From* Vessel Indication	---	G31-N036	G31-N036	ECCS	Differential Pressure Transmitter	Barton	764
53) Cleanup Flow From* Vessel Indication	---	G31-N041	G31-N041	ECCS	Differential Pressure Transmitter	Barton	764
54) RWCU Room Temperature* Inlet (no trip)	G31-N661 A,D,E,H, J,M	G31-N023 A,B,C,D E,F	G31-N061 A,D,E,H, J,M	RPS	RTD	Weed	1A0D
55) RWCU Area Ventilation* Differential High	G31-N663 A,D,E,h, J,M	G31-N602 A,B,C,D, E,F	NA	RPS	NA	NA	NA
56) RWCU Room Outlet* ## Ambient Temperature High	G31-N662 A,E,D,H, J,M	G31-N022 A,B,C,D, E,F	G31-N062 A,D,E,H, J,M	RPS	RTD	Weed	1A0D
	---	G31-N016 A,B,C,D, E,F	---	RPS	---	---	---

ENCLOSURE 2

NOTES

- # Deleted from plant. Functions of E11-N011A,B,C,D assigned to E11-N010A,B,C,D.
- \* Instruments for which a 10 CFR 50.59 extension is requested.
- a Transmitters having the same MPL No. are the same equipment providing several trip functions.
- b The complete RTD model number for all present ATTS applications is: 1A0D/611-1B-C-6-C-2-A2-0
- ## Transmitter G31-N016A,B,C,D,E,F are being deleted from the plant by ATTS. Their safety-functions are being performed by G31-N062A,D,E,H,J,M under the new installation.