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Georgia Power
the southern electric system
SL-865
2775N

August 8, 1986

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II - Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30323

REFERENCE:

R11: JNG
50-321/50-366 *B*
NRC I&E Bulletin
80-08, NRC
NUREG/CR-3053

ATTENTION: Dr. J. Nelson Grace

Gentlemen:

The following information is being provided by Georgia Power Company (GPC) in response to NRC NUREG/CR-3053, "Closeout of IE Bulletin 80-08: Examination of Containment Liner Penetration Welds." Although not required by regulatory requirements, GPC is submitting the enclosed information in order to assist in the closeout of NRC I&E Bulletin 80-08, "Examination of Containment Liner Penetration Welds," issued on April 7, 1980, for Plant Hatch Units 1 and 2. NUREG/CR-3053 did not require any response from licensees, since it was not issued by the NRC through an implementation letter. NRC I&E Bulletin 80-08 was issued as the result of primary containment liner penetration weld defects found during an NRC inspection at another licensee's facility and subsequent followup investigations at other licensees' facilities for similar weld defects. The purpose of the bulletin was to acquire information from all facilities to determine the generic impact of the primary containment liner penetration weld defect problem. GPC provided information for Plant Hatch Units 1 and 2 relative to the bulletin by letters dated July 7, 1980; August 5, 1980; November 3, 1980; August 10, 1981; and November 18, 1983.

The NRC issued NUREG/CR-3053 in July 1984. The NUREG was prepared by an NRC contractor, Parameter, Inc., and was based upon the collection of information acquired from the NRC Headquarters' files regarding facility responses to the bulletin and inspection reports. It was stated in the NUREG that no solicitation was made for additional information from the NRC Regional Offices. The purpose of the NUREG was to determine the closeout status of the bulletin for all facilities, to identify any remaining areas of concern, and to present proposals for further action to complete the closeout of the bulletin. Recommendations contained in the NUREG offer a general plan to assist facilities in resolving any remaining areas of concern for those facilities not having a closed-bulletin status. The Hatch units were noted in NUREG/CR-3053 as having an open status relative to bulletin closeout. The NUREG indicated that additional justification would be required in order to close out the bulletin for Plant Hatch.

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Georgia Power Company and its consultants have re-evaluated the GPC bulletin responses relative to the recommendations in NUREG/CR-3053 for closeout of the bulletin. Enclosed herein as Enclosures 1 and 2 are the revised penetration tables for Hatch Units 1 and 2, respectively. All known penetrations at Plant Hatch having a flued head and/or bellows assembly are listed. No other high-energy lines that do not follow this penetration design except for 1-inch or smaller instrument or sample lines are known to exist. In this case, the lines utilize instrument penetrations as shown in Figures 5.2-5 and 3.8-7 in the Final Safety Analysis Reports for Plant Hatch Units 1 and 2, respectively. The information provided in Enclosures 1 and 2 is intended to supplement information provided in our submittals of November 3, 1980; August 10, 1981; and November 18, 1983. Also, in certain cases, information is provided in the enclosures which modifies information provided in our November 3, 1980, submittal and is specifically noted elsewhere in this submittal. Re-evaluation of the November 3, 1980, submittal indicated that some information could not be fully substantiated, since the response originator, who was employed by one of our consultants, is deceased. Accordingly, the penetration tables have been carefully re-evaluated and modified, as necessary. To the best of our knowledge, the information contained therein is accurate. The enclosed information, along with the aforementioned three submittals (as modified by this submittal), should enable the NRC to close out NRC I&E Bulletin 80-08 for Hatch Units 1 and 2. It is our belief that by this submittal we have adequately responded to each of the remaining areas of concern identified in the NUREG.

The penetrations having a flued head and/or bellows assembly are all high-energy lines except the Hatch Unit 1 service water lines. High-energy lines are defined by NUREG/CR-3053 as systems having a maximum operating temperature exceeding 200°F and/or a maximum operating pressure exceeding 275 psig.

Several items in the enclosed tables require the following clarifications:

1. For weld quality, we were only able to determine, based upon available information, whether the weldability of the base material and filler material is compatible and whether the welding requirements assigned (preheat and interpass temperature) are in compliance with applicable specification requirements. Paragraph 1.3 of NUREG/CR-3053 suggests taking credit for weld efficiency factors to justify not performing radiography. It should be noted that weld joint efficiency factors are not used in ANSI B31.7 or ASME Section III design.

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2. Where weld material information (e.g., vendor-supplied, information not available) for determining weld quality, as discussed in item 1 above, was not available, radiography may have been performed by the vendor. Weld quality was deemed to be acceptable where radiography was performed by the vendor and was accepted.
3. The enclosed tables contain several changes from the previous information provided to the NRC in our submittal of November 3, 1980.
 - a. Penetration 36 (Hatch Unit 2) is not listed, because it is a spare with the bellows assembly never installed.
 - b. Penetration 17 (Hatch Unit 1) penetration sleeve material is SA-333, GR1.
 - c. Penetration 14 (Hatch Unit 1) process pipe material is SA-312, T304L.
 - d. Penetrations 13A and 13B (Hatch Unit 1) did not have RT or UT performed on the bellows assembly-to-penetration sleeve.
 - e. Penetrations 20 and 44 (Hatch Unit 1) and Penetration 41 (Hatch Unit 2) are added.
 - f. Penetrations 8, 10, and 17 (Hatch Unit 2) penetration sleeve material is SA-333, GR6.
 - g. Penetrations 10 and 14 (Hatch Unit ?) did not have RT performed on the bellows assembly-to-penetration sleeve.
4. Penetrations 20 and 44 for the Hatch Unit 1 service water lines have incomplete weld review, because the flued head material is not identified on any available documents, and the field stamp identifies a material that does not exist. Also, no weld information is available for the flued head-to-penetration sleeve weld. It is likely that the weld information exists; however, we have been unable to locate it. GPC will pursue the field data through the vendor. If the field data should prove to be unavailable, GPC will perform nondestructive examinations (e.g., PT and/or UT) of the containment penetration assemblies for these non-high-energy lines, where feasible, during the next scheduled

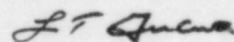
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refueling outage. Such examination(s) would entail the nondestructive examination of the pipe-to-penetration (flued head) weld outside containment and the accessible weld(s) of the flued head penetration assembly (e.g., bellows assembly-to-flued head, bellows assembly-to-containment sleeve) to verify containment penetration assembly integrity.

5. Where weld quality cannot be determined, based upon either item 1 or 2 above, for certain components (e.g., process pipe-to-flued head) of Hatch Unit 1 penetrations 7A through D, 20, 42, and 44 and Hatch Unit 2 penetrations 7A through D, 41, and 42, GPC will perform nondestructive examinations (e.g., PT and/or UT) of the containment penetration assemblies, where feasible. The examinations will be performed during the next scheduled refueling outage, as discussed in item 4 above, to verify containment penetration assembly integrity.

Should the NRC require any additional information in this regard, please contact this office at any time.

Sincerely,



L. T. Gucwa

JAE/mb

Enclosures

c(w): Georgia Power Company
Mr. J. P. O'Reilly
Mr. J. T. Beckham, Jr.
Mr. H. C. Nix, Jr.
GO-NORMS

U. S. Nuclear Regulatory Commission
Director, Division of Reactor Construction Inspection
Director, Office of Inspection and Enforcement
Director, Office of Nuclear Reactor Regulation
Senior Resident Inspector

ENCLOSURE 1

SHEET 1 OF 3

PENETRATIONS WITH BELLOWS ASSEMBLIES AND/OR FLUED HEADS - MATCH UNIT 1

PENETRATION NO	DESCRIPTION	SIZE (IN)	GUARD PIPE	BELLOWS ASSEMBLY TO FLUED HEAD				BELLOWS ASSEMBLY TO PENET SLEEVE				COMMENTS						
				WELD	EXAMINATION	BACK	LOC RT IUT IPT IRING	WELD	EXAMINATION	BACK	LOC RT IUT IPT IRING							
17A-7D	RAIN STEAM	42	24	YES	YES	FIELD: NO	IND	YES	YES	YES	YES	YES	YES	YES	SA-516, GR70 (5)	YES	SA-516, GR70 (5)	
8	CONDENSATE DRAIN	16	3	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-333, GR1 (5)	YES	SA-333, GR1 (5)
9A-9B	PRIMARY FEEDWATER	32	18	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-516, GR2 (5)	YES	SA-516, GR2 (5)
10	STEAM TO RCIC	16	4	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-105, GR2 (6)	YES	SA-105, GR2 (6)
11	STEAM TO HPCI	26	10	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-516, GR2 (6)	YES	SA-516, GR2 (6)
12	RHR SHUTDOWN COOLING SUCTION	36	20	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-105, GR2 (6)	YES	SA-105, GR2 (6)
13A-13B	RHR RETURN TO RECIRC LOOP	42	24	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-105, GR2 (6)	YES	SA-105, GR2 (6)
14	RCU SUPPLY	20	6	YES	YES	FIELDING	YES	YES	NO	NO	ER309	YES	YES	YES	YES	SA-182, F304 (5)	YES	SA-182, F304 (5)
16A-16B	CORE SPRAY	26	10	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-105, GR2 (6)	YES	SA-105, GR2 (6)
17	RPV HEAD SPRAY	18	4	YES	YES	ISHOP	YES	N/A	N/A	NO	(4)	YES	YES	YES	YES	SA-105, GR2 (6)	YES	SA-105, GR2 (6)
20 & 44	SERVICE WATER	12	8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(8)	NO BELLOWS ASSEMBLY
36	SPARE	6	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ER309	NO BELLOWS ASSEMBLY
42	SLC	6	1.50	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ER309	NO BELLOWS ASSEMBLY

ENCLOSURE 1 (Continued)

PENETRATIONS WITH BELLOWS ASSEMBLIES AND/OR FLUED HEADS - MATCH UNIT 1

SHEET 3 OF 3

NOTES

- (1) PENETRATION TYPE AS DEFINED IN NHP-1-FSAR-3.2.
- (2) RT PERFORMED DURING OUTAGE PER 6PC LETTER OF 8-10-81 FROM J. T. BECKHAM, JR. TO NRC REGION II.
- (3) NO BELLOWS ASSEMBLY, FLUED HEAD WELDED TO SLEEVE.
- (4) BY SUPPLIER, INFORMATION NOT AVAILABLE.
- (5) THE WELDABILITY OF THE BASE MATERIAL AND THE FILLER MATERIAL UTILIZED ARE COMPATIBLE. THE WELDING REQUIREMENTS ASSIGNED (PREHEAT AND INTERPASS TEMPERATURE) ARE IN COMPLIANCE WITH THE APPROPRIATE SPECIFICATION REQUIREMENTS.
- (6) WELD CONSIDERED ACCEPTABLE BASED ON THE RESULTS OF THE RT.
- (7) MATERIAL FOR THE FLUED HEAD IS NOT AVAILABLE. PER THE STAMP ON THE PART IT IS A108.6R2 WHICH DOES NOT EXIST. REVIEW WAS NOT COMPLETED.
- (8) NO FIELD WELD INFORMATION IS AVAILABLE FOR PENETRATIONS 20 & 44 FLUED HEAD TO PENETRATION SLEEVE WELDS. ADDITIONAL INFORMATION BEING PURSUED.
- (9) THIS PENETRATION ALSO HAS A PIPE TO PIPE WELD WHICH WAS FIELD FABRICATED AND RT.
- (10) THE PENETRATION IS SPARE AND THE PROCESS PIPE TO FLUED HEAD WELD IS NOT A CONTAINMENT ISOLATION BOUNDARY.

ENCLOSURE 2

SHEET 1 OF 3

PENETRATIONS WITH BELLOWS ASSEMBLIES AND/OR FLUED HEADS - MATCH UNIT 2

PENET: DESCRIPTION: FSAR ID TYPE	SIZE (IN)	GUARD: PIPE	BELLOWS ASSEMBLY TO FLUED HEAD				BELLOWS ASSEMBLY TO PENET SLEEVE				COMMENTS													
			WELD	EXAMINATION	BACK	WELD	LOC	RT	UT	IP		RING	MAT	WELD	LOC	RT	UT	IP	RING	MAT	ACCEPT			
17A-70: MAIN STEAM	42	24	YES	YES	FIELD NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
8 CONDENSATE DRAIN	16	3	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
19A-98: PRIMARY FEEDWATER	32	18	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
10 STEAM TO RCTC	18	4	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
11 STEAM TO HPCI	26	10	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
12 RHR SHUTDOWN COOLING SUCTION	36	20	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
13A-138: RHR RETURN TO RECIRC LOOP	42	24	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
14 RMCU SUPPLY	20	6	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-182, F304	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
16A-16B: CORE SPRAY	26	10	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
17 RPV HEAD SPRAY	18	4	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-105, GR2	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)
41 RECIRC LOOP SAMPLE	12.1	6	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ER309	ISA-182, F304	YES	(5)
42 SLC	12	1.50	YES	YES	SHOP	YES	N/A	N/A	NO	(4)	SA-182, F304	YES	YES	YES	YES	YES	YES	YES	YES	YES	E7018	ISA-516, GR70	YES	(5)

NO BELLOWS ASSEMBLY

ENCLOSURE 2 (Continued)

PENETRATIONS WITH BELLOWS ASSEMBLIES AND/OR FLUED HEADS - HATCH UNIT 2

SHEET 2 OF 3

PENET NO	PROCESS PIPE TO FLUED HEAD (INTERNAL)										GUARD PIPE TO FLUED HEAD									
	WELD LOC	WELD RT	EXAMINATION IUT	BACK IPT	IRING IRING	WELD MAT	BASE MAT	WELD ACCEPT	WELD LOC	WELD RT	EXAMINATION IUT	BACK IPT	IRING IRING	WELD MAT	BASE MAT	WELD ACCEPT				
7A-7D	YES	SHOP	(4)	(4)	(4)	(4)	(4)	ISA-516, GR701	(4)	YES	FIELD	NO	NO	YES	YES	E7018	IA-155, CL1	(5)		
								ISA-106, GRB1									ISA-516, GR701			
8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-106, GRB1			
9A-9B	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
10	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-106, GRB1			
11	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-106, GRB1			
12	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-516, GR701			
13A-13B	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-516, GR701			
14	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-182, F304	(6)		
																	ISA-106, GRB1			
16A-16B	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-106, GRB1			
17	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-105, GR21	(6)		
																	ISA-106, GRB1			
41	YES	SHOP	NO	NO	YES	NO	(4)	ISA-376, TP304	(4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
								ISA-182, F304												
42	YES	SHOP	NO	NO	YES	NO	(4)	ISA-182, F304	(4)	YES	SHOP	YES	N/A	N/A	NO	(4)	ISA-182, F304	(6)		
								ISA-376, T304									ISA-106, GRB1			

ENCLOSURE 2 (Continued)

PENETRATIONS WITH BELLOWS ASSEMBLIES AND/OR FLUED HEADS - HATCH UNIT 2

SHEET 3 OF 3

NOTES

- (1) PENETRATION TYPE AS DEFINED IN HNP-2-FSAR-3.8.
- (2) RT PERFORMED DURING OUTAGE PER GPC LETTER OF 8-10-81 FROM J. T. BECKHAM, JR. TO NRC REGION II.
- (3) NO BELLOWS ASSEMBLY, FLUED HEAD WELDED TO SLEEVE.
- (4) BY SUPPLIER, INFORMATION NOT AVAILABLE.
- (5) THE WELDABILITY OF THE BASE MATERIAL AND THE FILLER MATERIAL UTILIZED ARE COMPATABLE. THE WELDING REQUIREMENTS ASSIGNED (PREHEAT AND INTERPASS TEMPERATURE) ARE IN COMPLIANCE WITH THE APPROPRIATE SPECIFICATION REQUIREMENTS.
- (6) WELD CONSIDERED ACCEPTABLE BASED ON THE RESULTS OF THE RT.