

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8002040517 DOC. DATE: 80/01/28 NOTARIZED: NO DOCKET #  
 FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400  
 50-401 Shearon Harris Nuclear Power Plant, Unit 2, Carolina 05000401  
 50-402 Shearon Harris Nuclear Power Plant, Unit 3, Carolina 05000402  
 AUTH. NAME: MCDUFFIE, M.A. AUTHOR AFFILIATION: Carolina Power & Light Co. 05000403  
 RECIP. NAME: PARR, O.D. RECIPIENT AFFILIATION: Light Water Reactors Branch 3

SUBJECT: Requests assistance in resolution of applicable codes for containment penetration grout hole closure detail. Related details & drawing encl.

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NOTES:

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ACTION:	05 PM MINER	1	1	AD LWR	1	0
	BC LWR # 3	1	0	LA LWR # 3	1	0
INTERNAL:	01 REG FILE	1	1	02 NRC PDR	1	1
	06 I & E	2	2	08 OPERA LIC BR	1	1
	09 GEOSCIEN BR	4	4	10 QAB	1	1
	11 MECH ENG BR	1	1	12 STRUC ENG BR	1	1
	13 MATL ENG BR	2	2	15 REAC SYS BR	1	1
	16 ANALYSIS BR	1	1	17 CORE PERF BR	1	1
	18 AUX SYS BR	1	1	19 CONTAIN SYS	1	1
	20 I & C SYS BR	1	1	21 POWER SYS BR	1	1
	22 AD SITE TECH	1	0	26 ACCDNT ANLYS	1	1
	27 EFFL TRT SYS	1	1	28 RAD ASMT BR	1	1
	29 KIRKWOOD	1	1	AD FOR ENG	1	0
	AD PLANT SYS	1	0	AD REAC SAFETY	1	0
	AD SITE ANALYSIS	1	0	DIRECTOR NRR	1	0
	HYDRU-METEOR BR	2	2	MPA	1	0
0ELD	1	0				
EXTERNAL:	03 LPDR	1	1	04 NSIC	1	1
	30 ACRS	10	10			

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TOTAL NUMBER OF COPIES REQUIRED: LTR 51 ENCL 40

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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Furthermore, it is noted that the records should be kept in a secure and accessible format. Regular backups are recommended to prevent data loss in the event of a system failure or disaster.

The second part of the document outlines the procedures for handling discrepancies. It states that any inconsistencies should be identified immediately and investigated thoroughly. Once the cause is determined, appropriate corrective actions should be taken to prevent future occurrences.

Finally, the document stresses the need for ongoing training and education for all staff involved in the process. Keeping up-to-date with the latest industry practices and technologies is essential for maintaining the highest standards of accuracy and efficiency.

Item ID	Description	Quantity	Unit Price	Total Price	Date
001	Office Supplies	10	1.50	15.00	2023-10-01
002	Printing Services	500	0.05	25.00	2023-10-05
003	Software Licenses	3	100.00	300.00	2023-10-10
004	Travel Expenses	1	120.00	120.00	2023-10-15
005	Utilities	1	80.00	80.00	2023-10-20
006	Professional Fees	1	200.00	200.00	2023-10-25
007	Marketing Campaign	1	500.00	500.00	2023-10-30
008	Insurance Premium	1	150.00	150.00	2023-11-01
009	Salaries	10	100.00	1000.00	2023-11-05
010	Rent	1	300.00	300.00	2023-11-10
011	Interest on Loans	1	50.00	50.00	2023-11-15
012	Depreciation	1	20.00	20.00	2023-11-20
013	Gifts	5	40.00	200.00	2023-11-25
014	Charitable Contributions	1	100.00	100.00	2023-12-01
015	Research and Development	1	750.00	750.00	2023-12-05
016	Legal Fees	1	180.00	180.00	2023-12-10
017	Consulting Services	1	300.00	300.00	2023-12-15
018	Advertising	1	120.00	120.00	2023-12-20
019	Travel	1	90.00	90.00	2023-12-25
020	Miscellaneous	1	50.00	50.00	2023-12-30



Carolina Power & Light Company

January 28, 1980

Mr. Olan D. Parr, Chief  
Light Water Reactors Branch No. 3  
Division of Project Management  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555

SHEARON HARRIS NUCLEAR POWER PLANT UNIT NOS. 1, 2, 3 AND 4  
DOCKET NOS. 50-400, 50-401, 50-402, AND 50-403  
CONTAINMENT PENETRATION GROUT HOLE CLOSURE DETAIL

Dear Mr. Parr:

During a constructability review of the Unit No. 1 containment exterior wall, members of my staff concluded that special precautions would be necessary to ensure proper consolidation of concrete under the larger containment penetrations with dense supplementary reinforcing steel around them. It was concluded that it would be prudent to have holes in the bottom of each of these penetrations to facilitate insertion of vibrators. Chicago Bridge & Iron Company Drawing 27, Revision 1 is attached as Enclosure (1) and shows the related details for penetrations S-57, S-58, S-150, S-151, and S-152. As can be seen, the closure weld detail requires ultrasonic and magnetic particle examination.

Our engineers do not feel this situation is clearly addressed by applicable codes and are therefore requesting technical concurrence with our interpretation and planned course of action. Enclosure (2) summarizes the technical references and considerations. Our basic concern is that at least one (1) interpretation may be that radiographic examination is required. This would require that a gap be provided under each penetration for a film pack and the constructability of this approach severely diminishes the original objective.

Our project commitments and exceptions relative to the containment liner are detailed in Appendix 5H of the preliminary safety analysis report. Since the certificate of authorization, code stamping, and inspection by authorized inspectors is not required, we are requesting technical concurrence from you rather than the ASME committee. The authorized inspector does not participate in the containment since it is not code stamped.

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

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[The text in this section is extremely faint and illegible. It appears to be a multi-paragraph document with several lines of text per paragraph. The content is not discernible.]

January 28, 1980

Our construction schedule requires a resolution on our course of action by February 1, 1980. We would appreciate a conference call to discuss this matter at your earliest convenience.

Yours very truly,



M. A. McDuffie  
Senior Vice President  
Engineering and Construction

MAM/jc  
Enclosures

cc: Mr. James P. O'Reilly

SHEARON HARRIS NUCLEAR POWER PLANT  
CONCRETE GROUT HOLES IN PENETRATIONS

Ebasco Specification: CAR-SH-AS-1  
Title: Containment Liner, Air Lock, Hatch

Applicable Code: None required for "concrete containment system at time of design and fabrication; however, A/E designed penetrations to meet code requirement for "metal containment" ASME Section III, Division I, Subsection NE, "MC Components"

Field work to ASME Section III, Division I, 74 edition, W76

Problem Area; 3 small 4" diameter holes, in a row in bottom of penetrations to facilitate concrete pour to ensure sound area under each penetration.

Equipment:  
With Holes

Equipment Hatch	24" diameter
Personnel Lock	9" diameter
Escape Lock	5" diameter
H&V Sleeve	4" diameter

Code: No weld type joint specifically shown on vessel illustration, Fig. NE 3351-1 for Category A,B,C,D, weld joints which are similiar to closure plate for the holes.

The penetration components were redesigned to add thicker plate in hole areas for reinforcement such as openings. A hole 4" diameter cut through and counterbored to provide a lip to act as a backing for closure weld after concrete has been poured.

Design: For compliance with NDE requirements for Category A or B type weld joints by inspecting with UT in lieu of RT for inaccessible welds per Para NE 5211.1

Problem: Para. NE 5211.2 on hydro inspection of Category A and B welds states that examination of embedded or inaccessible welds of containment vessels may be waived if they are double butt welded and fully radiographed prior to covering and are leak tightness tested with a gas medium test such as a halide leak detector test.

Resolution:

- Full penetration butt weld; area reinforced like an opening per code requirements.
- UT inspection per code in lieu of RT.
- Perform gas leak test by leak chase channel.

Justification:

- Not a code stamped penetration; however, the commitment is to NRC to design and build to code. Design is conservative.
- UT in lieu of RT per NE 5211.1.

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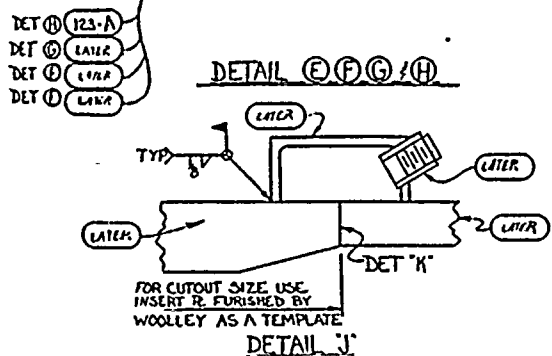
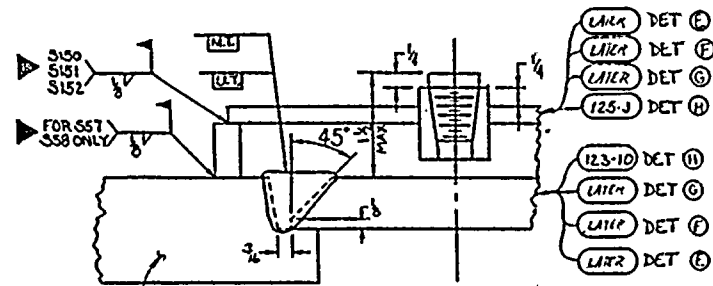
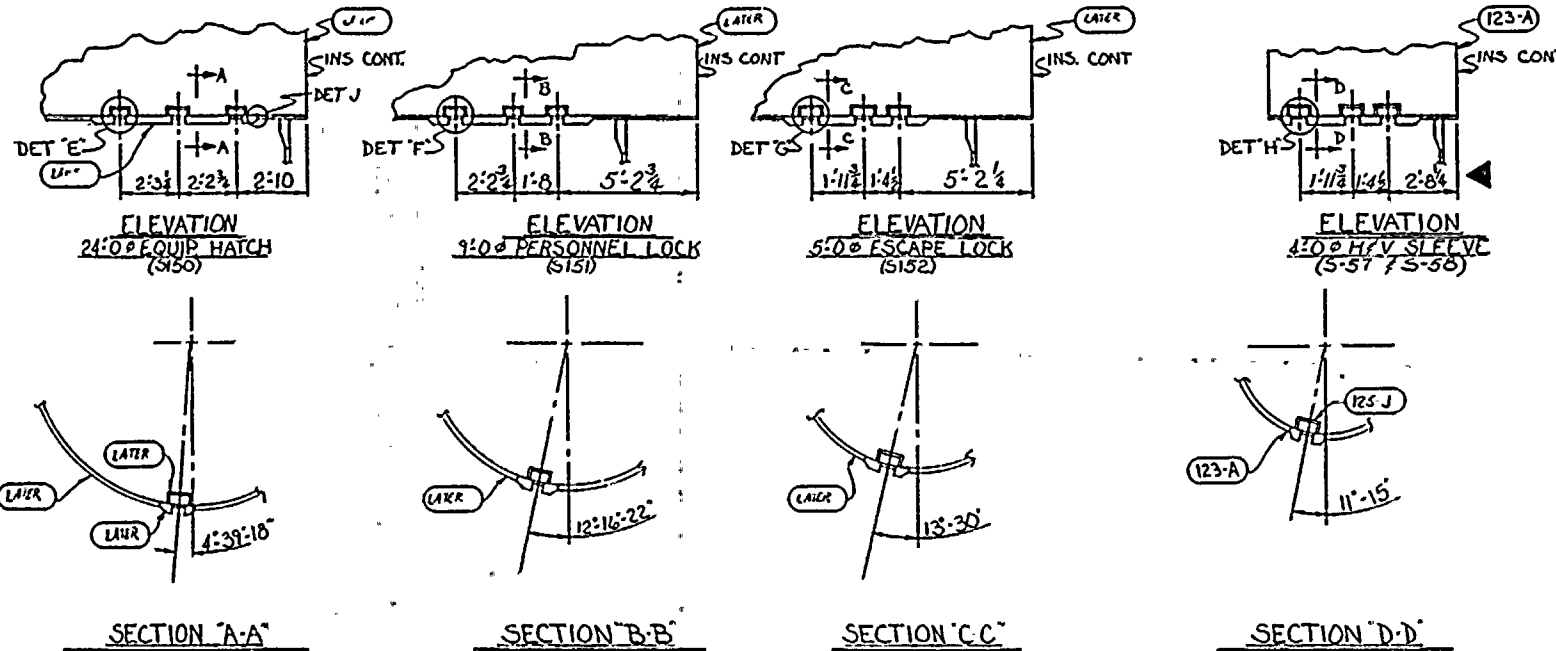
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- (3) Magnetic particle inspection
- (4) Leak test by leak chase channel.
- (5) The remainder of the containment liner, ASME Section III, Div. 2 is inspected by magnetic particle or liquid penetrant inspection and leak chase test with RT done as a spot examination in areas not backed by concrete only.
- (6) The holes are backed by concrete.

ADDITIONAL DATA TO SUPPLEMENT DRAWING

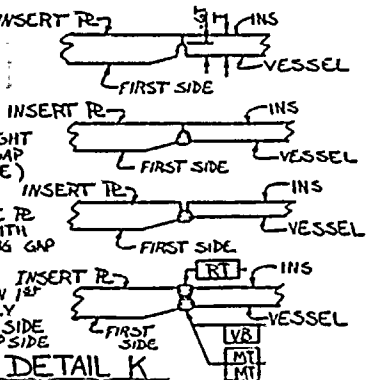
<u>PENETRATION</u>	<u>THICKNESS OF PENETRATION WALL</u>	<u>THICKNESS OF THICKENED SECTION</u>	<u>THICKNESS OF PLUG</u>	<u>MATERIAL TYPE FOR THICKENED SECTION AND PLUG</u>
S-57	1"	1½"	¾"	SA516 GR 70
S-58	1"	1½"	¾"	SA516 GR 70
S-150	1¼"	1½"	¾"	SA516 GR 70
S-151	½"	1 "	½ "	SA516 GR 70
S-152	½"	1 "	½"	SA516 GR 70





**FIELD PROCEDURE**

- LAYOUT & CUT SQ EDGE OPENING AS NEAR EXACT SIZE AS POSSIBLE. (AIM FOR 1/8 GAP)
- FIT INSERT R TO AS TIGHT A FIT AS POSSIBLE (1/8 GAP IS NORMAL & ACCEPTABLE)
- IF GAP EXCEEDS 3/16 IN SOME LOCAL AREAS, THE R SHALL BE BUILT-UP WITH METAL PRIOR TO BRIDGING GAP
- ARC-GOUGE GROOVE IN 1<sup>ST</sup> SIDE & WELD COMPLETELY BEFORE STARTING 2<sup>ND</sup> SIDE ARC-GOUGE GROOVE IN 2<sup>ND</sup> SIDE & WELD COMPLETELY.



9-11-79  
Hudson  
REV

SHEARON HARRIS NUCLEAR POWER PLANT CONTAINMENT LINER

Chicago Bridge & Iron Company		UNIT 1	
GROUT HOLE DETAILS			
Project No.	8-2-79	Contract No.	84031
City	CHICAGO	Rev.	27
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▲ INDICATES CHANGE FROM PREVIOUS ISSUE



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