

APPENDIX C
FORM SSP-59
(Page 1 of 4)
QUALITY CONTROL INSPECTION REPORT

SHEET 1 of 25 7/2/15/94

IR No. REN-T930110

WORK DOC/REV 92-65636-01

ECN/DCN N/A

UNIT 3

SYSTEM(S) 1 RPV

FOREMAN R. Seals

DURATION N/A

RESP SECTION BBO GEE

INSPECTOR C. Minor / R. Seals

PART A

ITEM	TYPE INSP	I/P NO	PROCEDURE/REV	DRAWING/REV	UNID/DESCRIPTION	M&TE NO./DATE	S/G/C/U	QC INSPECTOR/LEVEL/DATE
1	NUST	IT. 11	GE-UT-700/2	ISI-0220-C/1/3	Weld C-5-FIG	N/A	U	Ch M ₂ III 12/1/89
2	NUST	IT. 11	GE-UT-700/2	ISI-0220-C/1/3	Weld C-4-5	N/A	U	Ch M ₂ III 12/1/89
3	NUST	IT. 11	GE-UT-700/2	ISI-0220-C/1/3	Weld V-4-B	N/A	U	Ch M ₂ III 12/1/89
4	NUST	IT. 11	GE-UT-700/2	ISI-0220-C/1/3	Weld C-2-3	N/A	U	Ch M ₂ III 12/1/89
5	NUST	IT. 11	GE-UT-700/2	ISI-0220-C/1/3	Weld C-3-4	N/A	U	Ch M ₂ III 12/1/89
6								
7								

PART B

ITEM	UNSATISFACTORY CONDITION/CORRECTIVE ACTION			DURATION FOR INSPECTION		PARTIAL INSPECTION Y (N)			
	ATTR No(s) PROC No	UNSAT CONDITION DESCRIPTION	CORRECTIVE ACTION DESCRIPTION	RESP ENGR/DATE RESP FRM/DATE	M&TE No. DUE DATE	CAUSE CODE	S/U/C	C/A CODE	QC INSP/LVL/DATE
1-5	GE-UT-700 Rev. 2	See Attached Summary Sheets	TVA Engineering To disposition	Ch M ₂ III R. Seals 12-21-89	N/A	H	S	A	F.W. Foscello Jr. 2/15/94 per engineering calculation # MD-Q-3000-940005.

C/CODES

C=SCAR/ACP D=DOCUMENTATION F=DESIGN CHANGE W=REWORK P=REPLACE R=REPAIR A=ACCEPT-AS-IS Q=OTHER/DESCRIBE:

REMARKS:

GE NCR-1C7LA-05 attached 26 pages
DG-ISI-0220-C R/4 7/2/15/94
The indications are acceptable. See attach calculation cover sheets.

NOTE: ACCEPT-AS-IS/REPAIR - SE MANAGER OR DESIGNEE MUST PROVIDE JUSTIFICATION IN THE REMARKS SECTION

SE MANAGER OR DESIGNEE SIGNATURE / DATE
Albert Zedel 8-16-94

NOTE: ACCEPT-AS-IS/REPAIR ASME SECTION XI RELATED ACTIVITY.

ANTI REVIEW / DATE

REJECTED IR RECEIVED BY/DATE

REVIEWED BY (QC SUPERVISOR)/DATE
F.W. Foscello Jr 2/10/94

RETENTION PERIOD: LIFETIME

ADDED TO DATABASE (DATE)
RESPONSIBILITY: RECORDS MANAGEMENT

Reference letter Rims # L 29 940214 800 from Corporate Codes and ISI Manager, 7/2/15/94

QA Record

TVA 10697 (DNE-0A-6-86)

DNE CALCULATIONS

Page 1

Title: VESSEL WELD FLAW EVALUATION FOR BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 3
 Plant/Unit: BFN/UNIT 3

Preparing Organization: [Redacted] KEY NOUNS (Consult RIMS Descriptors List): Reactor Vessel, Welding

Branch/Project Identifiers: MD-Q3001-940005
 Each time these calculations are issued, preparers must ensure that the original (RO) RIMS accession number is filled in.
 Rev (for RIMS' use): RIMS ACCESSION NUMBER

RO: R14 '94 0208 105

Applicable Design Document(s): ASME Code Section XI

SAR Section(s): UNID System(s): 001

Revision 0: R1, R2, R3

ECN No. (or Indicate Not Applicable): N/A
 Statement of Problem: Evaluate Reactor Pressure Vessel weld flaws as identified in GE Nuclear Nonconformance Report NCR No. 1C7LA-05 for BFN Unit 3.

Prepared: E.R. Winters

Checked: [Signature] 2/4/94

Reviewed: [Signature] 2/4/94

Approved: [Signature]

Date: 2/7/94

IF MORE SPACE REQUIRED: List all pages added/deleted/changed by this revision

ORIGINAL

ABSTRACT [These calculations contain an unverified assumption(s) that must be verified later. Yes () No (X)]
 Calculation contains special requirements or limiting condition? Yes () No (X)

A structural flaw evaluation was performed in accordance with ASME Code Section XI IWB-3600 (1986 edition) on BFN Unit 3 RPV weld flaws identified in GE NCR No. 1C7LA-05. All flaws were determined to meet the IWB-3600 acceptance criteria. Continued operation is justified up to 12 effective full power years. Re-inspection of weld flaws is required at next 10-year interval.

Microfilm and store calculations in RIMS Service Center
 Microfilm and return calculations to: Address:

E. R. Winters, EDB 2A-BFN
 RIMS, ET SLP-K.

ENGINEERING RECORDS PROCESSING
 CALCULATION CONTROL
 EDB 1B-BFN

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Fwz
 2/15/94

FEB 15 1994

Robert L. Phillips, EDB 2A-BFN

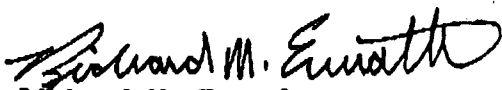
BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 3 - NUCLEAR REGULATORY COMMISSION (NRC)
AUGMENTED REACTOR VESSEL (RV) SHELL WELD EXAMINATIONS - AMERICAN SOCIETY OF
MECHANICAL ENGINEERS (ASME) SECTION XI SUPPLEMENTAL EXAMINATIONS

This memorandum serves to document Codes and Inservice Inspection (ISI) Section's position concerning the subject examinations as discussed with you on February 3, 1994. It is Codes and ISI's position that ASME Section XI supplemental examinations, other than regular scheduled examinations, for the Unit 3 RV welds are not required by the Code of Federal Regulations or ASME Section XI.

The automated RV shell weld examinations recently performed on Unit 3 located unacceptable flaw indications requiring analytical evaluation. The flaws were subsequently accepted by evaluation. When flaws are accepted based on analytical evaluation, ASME Section XI requires future supplemental examinations. Based on the Unit 3 Inservice Inspection (ISI) Program ASME Section XI Code, 1974 Edition, Summer 1975 Addenda, successive examinations are not required to be performed more frequently than regular scheduled examinations. In addition, the successive examinations only apply to components which are required by ASME Section XI to have a percentage of area examined (i.e., less than 100 percent of weld length examined). The technical basis for this position is presented in bullet form on the attachment.

Should NRC require that TVA follow successive examination requirements from a Code other than the Summer 1975 Addenda, we recommend the following plan of action. Successive examinations would be required to be completed by the end of the first period of the second inspection interval or four years following unit restart. The ASME Section XI Code Committee is currently developing a Code case which would delete the successive examination requirement for subsurface flaws accepted by analytical evaluation. TVA should commit to NRC to evaluate the status of the Code case versus development of a request for relief during the first period of the second inspection interval (second inspection interval begins one year following unit startup). This commitment should be made only if NRC requires successive examinations to be performed to a code other than the Summer 1975 Addenda.

If you require additional information concerning this matter, please contact Gary L. Belew at 751-4981.



Richard M. Emrath
Codes & ISI Manager
LP 4F-C

GLB:TLH
Attachment
cc: See page 2

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IR#BFN-T-930110
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Robert L. Phillips
Page 2

FEB 15 1994

cc (Attachment):

- H. E. Crisler, EDB 2F-BFN
- F. Froscello, MOD 1K-BFN
- M. L. Turnbow, STC 1I-SQN
- T. R. Woods, LP 4F-C
- RIMS, CST 13B-C

0603o

IR# BFN-T-930/10

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BFN UNIT 3 RV SUCCESSIVE EXAMINATIONS

- ASME Section XI Codes applicable to the current ISI interval (see 1/3-SI-4.6.G).
 - 1974 Edition, Summer 1975 Addenda: Does not require examination of 100 percent of length of RV welds.
 - 1986 Edition: NDE procedures including acceptance criteria and flaw evaluation (IWB-3600 for RV) updated to this Code.
 - Update to portions of the 1986 Edition was approved by NRC (A02 920429 005).
- NRC revised 10 CFR 50.55a to require augmented examination of 100 percent of length of RV shell welds as specified in the 1989 Edition of ASME Section XI.
- The revision to 10 CFR 50.55a specified that, "The augmented examination . . . shall be performed in accordance with the related procedures specified in the Section XI Edition and Addenda applicable to the inservice inspection interval in effect on September 8, 1992 . . ." For Unit 3 this was the Summer 1975 Addenda and 1986 Edition as indicated above.
- Flaws detected during the RV examination must be repaired, replaced, or accepted by analytical evaluation in accordance with IWB-3000 (1986 Edition).
- If flaws are accepted by analytical evaluation, such as Unit 3 RV, then successive examinations (IWB-2420(b) and (c)) are required by IWB-3132.4(b) of the 1986 Edition.
- Procedures (1/3-SI-4.6.G) in place for successive examinations for the current ISI interval are in accordance with the 1974 Edition, Summer 1975 Addenda (IWB-2420(e)).
- Successive examinations of the Summer 1975 Addenda, IWB-2420(e), have criteria only for components whose future examinations require examination of a percentage of areas (i.e., weld length) of a component rather than 100 percent of the area. These successive examinations of flaws accepted by analytical evaluation are not required to be performed at a frequency more often than normally scheduled Section XI examinations.
- Scheduled Section XI examinations conducted in subsequent intervals for the RV will include 100 percent of the length of each shell weld (to the extent practical) including volumes containing flaws accepted by analytical evaluation.
- Therefore, successive examinations are not required.