Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

July 9, 2002

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop OWFN, P1-35
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of) Docket No. 50-296
Tennessee Valley Authority)

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 3 - AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION XI, INSERVICE INSPECTION (ISI) AND REPAIR AND REPLACEMENTS PROGRAMS - SUMMARY REPORTS FOR CYCLE 10 OPERATION

In accordance with paragraphs IWA-6220 and IWA-6230 of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1989 Edition (no addenda), TVA is submitting the BFN Unit 3 outage summary reports for NRC review. The summary reports are for inservice inspection (NIS-1 Report), and repair and replacement activities (NIS-2 Report) for Unit 3 Cycle 10 operation. In addition, TVA is submitting a NIS-2 report that was inadvertently omitted from the Unit 3 Cycle 9 NIS-2 summary report. That report was transmitted by TVA letter dated July 31, 2000.

TVA has determined that certain welds had nondestructive examination (NDE) coverage limitations (less than 90 percent coverage completed) which exceeds that specified in ASME Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1." The components are 10 Reactor Pressure Vessel (RPV) nozzles (ASME Section XI Code Category B-D, Nozzle-To-Vessel Welds) which had calculated NDE examination coverage ranging between 70 and 77 percent completed. The limitations encountered during the performance of the ultrasonic (UT) examination were caused by component

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configuration. The nozzle contours limit the accessible UT examination volume. As a result, TVA will submit a revision to request for relief 3-ISI-7 to address the reduced NDE examination coverage for these components. TVA submitted request for relief 3-ISI-7 for UT examination coverage limitations for other Unit 3 RPV (ASME Section XI, Category B-D) nozzles by letter dated March 26, 1999. NRC accepted TVA's request for relief 3-ISI-7 by letter dated August 2, 1999.

There is also one austenitic stainless steel piping weld (DRHR-3-21) where examination coverage was limited to one side of the weld. The weld is Category R-A (ASME Code Case N-577, "Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method A," N-577-2500 Table 1). This weld received greater than 90 percent examination coverage per the requirements of ASME Section XI. However, 10 CFR 50.55a(b)(2)(xv)(A) restricts taking credit for "one-side" examinations without completing a single-sided ASME Section XI, Appendix VIII Demonstration using flaws on the opposite side of the weld. At this time, no Performance Demonstration Initiative Program exists for single-side austenitic welds. Consequently, only 50 percent examination coverage was achieved. TVA will submit a request for relief to address the reduced examination coverage for this weld.

Enclosure 1 of this letter contains the BFN Unit 3 Inservice Inspection Summary Report (NIS-1) for Code Class 1 and 2 pressure retaining components and their supports. Enclosure 2 contains the Repair and Replacements Summary Report (NIS-2) for Code Class 1 and 2 components and supports. Enclosure 3 provides the NIS-2 report for the RWCU system that was inadvertently omitted from the BFN Unit 3 Cycle 9 NIS-2 Summary Report.

If you have any questions regarding these reports, please contact me at (256) 729-2636.

Sincerely,

T. E. Abney
Manager of Licensing
and Industry Affairs

Enclosures
cc: Enclosures
Mr. Paul E. Fredrickson, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303-8931

NRC Resident Inspector
Browns Ferry Nuclear Plant
P.O. Box 149
Athens, Alabama 35611

Mr. Kahtan Jabbour, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 3
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME),
SECTION XI, INSERVICE INSPECTION (ISI), AND
AUGMENTED EXAMINATIONS PROGRAM

SUMMARY REPORT (NIS-1) FOR UNIT 3 CYCLE 10 OPERATION

(SEE ATTACHED)

BFN

UNIT 3 CYCLE 10

REFUELING OUTAGE

NIS-1 OWNERS SUMMARY REPORT

BFNP

TVA

NUCLEAR POWER

CLEAN SAFE EFFICIENT

PREPARED BY: 06/17/02
ISO ISI/NDE Supervisor

REVIEWED BY: 6-18-02
System Engineer, ISI

REVIEWED BY: 6-24-02
System Engineer, IWE

RONALD K. GOLUB, MANAGER
COMPONENT ENGINEERING

TENNESSEE VALLEY AUTHORITY

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

UNIT 3 CYCLE 10

NIS-1

"OWNER'S REPORT FOR INSERVICE INSPECTION"

TABLE OF CONTENTS

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX I — FORM NIS-1 OWNER'S REPORT

APPENDIX II — SCOPE AND INTRODUCTION

SCOPE
INTRODUCTION

APPENDIX III — ISI SUMMARY

EXAMINATION SUMMARY
ASME CODE CASES
UNIT 3 INTERVAL STATUS
PERSONNEL AND EQUIPMENT CERTIFICATIONS

APPENDIX IV — EXAMINATION LIMITATIONS

METHOD OF CALCULATION OF LIMITATIONS
EXAMINATION LIMITATIONS

APPENDIX V — EXAMINATION PLAN

KEY TO WELD TRACKING SYSTEM
EXAMINATION PLAN OF CLASS 1 AND 2 COMPONENTS
COMPONENT ISOMETRICS

APPENDIX VI — SUMMARY OF INDICATIONS

SUMMARY OF INDICATIONS

ATTACHMENT 1 — INTEGRAL ATTACHMENT WELDS EXAMINED IN CYCLE 7 RECEIVE AN ENGINEERING EVALUATION TO INCREASE CODE COVERAGE

OWNER: TENNESS[illegible] AUTHORITY OFFICE [illegible] POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ATTACHMENT 2 AUGMENTED EXAMINATION SUMMARY

SECTION 1: AUGMENTED SUMMARY
SECTION 2: EXAMINATIONS PERFORMED DURING UNIT 3 CYCLE 10 (EXAMINATION SUMMARY)

ATTACHMENT 3 IWE-BFN CONTAINMENT INSERVICE INSPECTION PROGRAM

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX I

NIS-1 OWNER'S REPORT

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Inservice Inspection Introduction Summary

In accordance with paragraph IWA-6220 of 1989 Edition of Section XI of the ASME Boiler and Pressure Vessel Code the following information is provided.

1. Date of document completion: June 4, 2002

2. Name of owner and address of principal offices:

   Tennessee Valley Authority
   Office Of Nuclear Power
   1101 Market Street
   Chattanooga, Tennessee 37402-2801

3. Name and address of the nuclear generating plant:

   Browns Ferry Nuclear Plant
   P.O. Box 2000
   Decatur, Alabama 35602

4. Name or number assigned to the nuclear power unit by TVA:

   Browns Ferry Nuclear Plant, Unit 3.

5. Commercial operation date of unit:

   March 1, 1977

6. Numbers assigned to the components by the state:

   No numbers assigned

7. National Board Number assigned to the components by the manufacturer:

   No numbers assigned

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: B[illegible]RY NUCLEAR PLANT [illegible] DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

8. Names of the components and descriptions including size, capacity, material, location, and drawings to aid identification.

   The Class 1 and 2 components examined as part of this Inservice inspection are listed in Appendix V.

9. Name and address of principal manufacturer and the principal contract which will identify the subcontractors/manufacturer's component identification numbers.

   The majority of components examined were supplied by:

   General Electric Corporation
   San Jose, Ca.
   Contract Number: 66C31-90744

10. Date of completion of the examinations:
    April 08, 2002

11. Name of ANII who witnessed or otherwise verified the examinations and his employer and business address:

    Albert L. Ladd and James A. Longenberger.
    Hartford Steam Boiler of Connecticut
    200 Ashford Center North, Suite 300
    Atlanta, Georgia 30338

12. Abstract of examinations, conditions observed, and corrective measures recommended or taken:

    See Appendix III, IV, V and VI

13. Signature of ANII:

    See NIS-1 Form.

FORM NIS-1 OWNERS' REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Tennessee Valley Authority, 1101 Market St. Chattanooga, TN. 37402
(Name and Address of Owner)

2. Plant Browns Ferry Nuclear Plant, P.O. Box 2000 Decatur, AL. 35602
(Name and Address of Plant)

3. Plant Unit 3 4. Owner Certificate of Authorization Not Required

5. Commercial Service Date 03/01/77 6. National Board Number for Unit Not Required

7. Components Inspected:

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Pressure Vessel	General Electric	Contract No. 67C31-90744	N/A	N/A
Various systems and components. (See Appendix V)	TVA	N/A	N/A	N/A
The NIS-1 Owners Report for Inservice Inspections includes Appendices I, II, III, IV, V, and VI and Attachment 2			7-1-03	

Total Pages 1 of 2

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8.5 in. X 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (back)

8. Examination Dates 05/05/2000 to 05/06/2002

9. Inspection Interval from 11/19/96 to 11/18/05

10. Applicable Editions of Section XI 1989 Addenda N/A

11. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Appendix II, III, IV, and V. Examinations complete the second outage of the second period of the second inspection interval.

12. Abstract of Conditions Noted. . See Appendix II, III, IV, V, and VI.

13. Abstract of Corrective Measures Recommended and Taken. See Appendix VI

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 6/26, 2002 Signed Tennessee Valley Authority By
Owner

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

CERTIFICATE OF INSERVICE INSPECTION

I, The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Tennessee and employed by HSB Ct of Hartford, CT., have inspected the components described in this Owners' Data Report during the period 05/05/2000 to 05/06/2002, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data Report in accordance with the requirements of the ASME Code Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owners' Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 1, 2002

Inspectors Signature

Commissions TN 3135 I SN BA
National Board, State, Province and No.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX II

SCOPE AND INTRODUCTION

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Scope:

The scope of this appendix is to provide an overview of the Inservice inspections performed during the Unit 3/Cycle 10 Outage on Class 1 and 2 components for ASME Section XI Code credit and other augmented examinations.

Introduction:

The examinations were performed in accordance with implementing plant surveillance instruction 3-SI-4.6.G "Inservice Inspection and Risk Informed Inservice Inspection Program Unit 3". 3-SI-4.6.G is organized to comply with the ISI NDE requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Division 1, Articles IWX-1000, IWX-2000, IWX-3000, and IWX-6000 in accordance with Title 10 Code of Federal Regulations (CFR) Part 50, 50.55a (g); to implement the Browns Ferry Nuclear Plant (BFN) Technical Requirements TR-3.4.3; and to fulfill the requirements of SPP-9.1, ASME Section XI Inservice Inspection Program.

Beginning the second Period of the second Interval , Surveillance Instruction 3-SI-4.6.G implemented the NRC approved BFN Risk-Informed Inservice Inspection Program to address all piping locations that are subject to service induced degradation. In accordance with Regulatory Guides 1.174 and 1.178 and Code Case N-577, this program provides an acceptable alternative approach to the existing ASME Section XI requirements for scope and frequency of piping weld examinations, and satisfies the criteria of 10CFR50.55a(a)(3)(i) providing an acceptable level of quality and safety.

Effective June 19, 2000, integral attachments are examined in accordance with ASME Boiler and Pressure Vessel Code, Section XI 1995 Edition, 1996 Addenda per Request for Relief 3-ISI-9.

3-SI-4.6.G reflects the built-in limitations of the original plant design, geometry, construction, component materials and the current technology or state-of-the-art nondestructive examination techniques. The SI specifies the methods to be used and provides schedule tables from which specific items were scheduled for examination during the outage. Examinations were witnessed or verified by an Authorized Nuclear Inservice Inspector (ANII) and performed in accordance with the Section XI of the ASME Boiler and Pressure Vessel Code.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

The majority of examinations were performed by the TVA Inspection Services Organization (ISO). Augmentation of personnel was provided by Wesdyne, Inc., and Framatome ANP.

An overview of ISI activities consists of the following:

. ASME Section XI Class 1 and 2 Piping Examinations

. ASME Section XI Class 1 Reactor Pressure Vessel Weld Examinations

. ASME Section XI Class 1 and 2 Support Examinations

. Reactor Pressure Vessel In-Vessel Visual Inspection (IVVI)

. Augmented Examinations

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX III

ISI SUMMARY

TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000

UNIT: THREE CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.

COMMERCIAL SERVICE DATE: MARCH 1, 1977

NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.

Examination Summary:

The Unit 3, Cycle 10 Inservice Inspection (ISI) was the second scheduled refueling outage during the second inspection period of the second ASME Section XI 10-year inspection interval. Approximately 202 visual, 100 ultrasonic, 18 magnetic particle and 1 liquid penetrant examinations were performed in support of code credit components. Also, preservice examinations were performed; 6 visual, and 1 liquid penetrant examinations. Ten (10) Notification of Indications (NOI's) were issued to document indications identified during the performance of the examinations. These NOI's were evaluated by engineering and dispositioned (see Appendix VI, Summary of Indications).

Other examinations were performed in accordance with BFN's augmented inspection program and are included in Attachment 1 for information. Approximately 43 visual, 43 ultrasonic, and 10 radiography examinations were performed in accordance with the augmented program. These totals are inclusive of the Reactor Pressure Vessel Internals Inspection (RPVII) on Unit 3 RPV internals and ultrasonic inspection of the core spray piping welds for IGSCC.

OWNER: [illegible] VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ASME Code Cases

The following code cases have been approved for use as applicable during the Unit 3/Cycle 10 outage:

N-307-1	Revised Ultrasonic Examination Volume for Class 1 Bolting, Table IWB-2500-1, Examination Category B-G-1, When the Examinations Are Conducted From the Center-Drilled Hole, Section XI, Division 1
N-435-1	Alternative Examinations Requirements for Vessels With Wall Thickness 2 in. or Less, Section XI, Division 1
N-457	Qualification Specimen Notch Location for Ultrasonic Examination of Bolts and Studs, Section XI, Division 1
N-460	Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1
N-461	Alternative Rules for Piping Calibration Block Thickness, Section XI, Division 1
N-491	Alternative Rules for Examination of Class 1, 2, 3 and MC Component Supports of Light Water Cooled Power Plants, Section XI, Division 1
N-498-1	Alternate Rules for 10-Year System Hydrostatic Testing for Class 1, 2 and 3 Systems Section XI Division 1
N-524	Alternate Examination Requirements for Longitudinal Welds in Class 1 and 2 Piping - Section XI, Division 1
N-532	Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report and Submission as Required by IWA-4000 and IWA-6000- Section XI Division 1. Reference RFR 3-ISI-6
N-577	Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method A, , Section XI, Division 1, (RIMS # R08 000601 846), with the more detailed provisions provided in WCAP-14572, Revision 1-NPA, "Westinghouse Owners Group Application Of Risk - Informed Methods To Piping Inservice Inspection Topical Report"

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

UNIT 3 INTERVAL STATUS

The BFN Unit 3 cycle 10 outage ISI examinations were performed during the second scheduled refueling outage of the second period of the second interval. The component quantities examined were determined from 3-SI-4.6.G, Table A (Unit 3 Class 1 and 2 components) and from applicable BFN Unit 3 relief requests. This NIS-1 report covers the Cycle 10 outage for Browns Ferry Unit 3. The following table summarizes the percentage of Code required examinations completed to date.

Table 1 summarizes code credited examinations by category and percentages completed and complies with ASME Section XI percentage requirements.

TABLE 1
ASME SECTION XI EXAMINATION SUMMARY FOR THE SECOND PERIOD OF THE SECOND TEN-YEAR INSPECTION INTERVAL

CATEGORY	% COMPLETE	COMMENTS
B-A	55%	
B-B	N/A	
B-D	64%	
B-E		Deferred to system pressure test
B-F	29%	Risk-Informed ISI implemented in the second period (cycle 9)
B-G-1	65%	
B-G-2	82%	(Item # B7.50 and B7.70 when the valve is disassembled)
B-G-2	.05%	(Item # B7.80 CRD Housing Bolting, inspected when disassembled)
B-H	N/A	Reference RFR # 3-ISI-9
B-J	32%	Risk-Informed ISI implemented in the second period (cycle 9)
B-K-1	33%	Percentage for first period B-K-1's
B-K	50%	Upgraded to Section XI, 1995 Edition , 1996 Addenda
B-L-1	N/A	
B-L-2	100%	
B-M-1	N/A	
B-M-2	65%	When disassembled
B-N-1	66%	Each period
B-N-2		Deferral permissible
B-O	N/A	
B-P		Refer to pressure test program
B-Q	N/A	
C-A	50%	
C-B	66%	
C-C	56%	Second period exam selection per ASME Section XI 95 ed. w/ 96 add.
C-D	N/A	
C-F-1	31%	Risk-Informed ISI implemented in the second period (cycle 9)
C-F-2	34%	Risk-Informed ISI implemented in the second period (cycle 9)
C-G	N/A	
D-A	33%	
D-B	44%	Upgraded to Section XI, 1995 Edition , 1996 Addenda
D-C	100%	Upgraded to Section XI, 1995 Edition , 1996 Addenda
F-A	66%	
R-A	59%	Risk-Informed ISI implemented in the second period. This percentage does not include Flow Accelerated Corrosion (FAC) Item # R1.18. Reference BFPER 99-008578-000, 02-005018-000, 02-004920-000.

OWNER: TENNESSEE VALLEY AUT OFFICE OF NUCLEAR PO 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	LANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

PERSONNEL/EQUIPMENT CERTIFICATIONS:

NDE personnel certification records for TVA and contractor employees are maintained by TVA's Nuclear Engineering and Technical Services Corporate, Inspection Services Organization (ISO). These records are maintained as permanent QA records for a forty year plant life. Any details or specifics regarding NDE certification records should be directed to the ISO at the Sequoyah Training Center in Soddy-Daisy, Tennessee at telephone number (423) 843-4026.

NDE equipment certification records are maintained by the TVA ISO. Any details or specifics regarding NDE equipment certification records should be directed to ISO at the Sequoyah Training Center in Soddy Daisy, Tennessee at telephone number (423)843-4026.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX IV
EXAMINATION LIMITATIONS

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROW[illegible] [illegible]CLEAR PLANT P.C [illegible] DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

METHOD OF CALCULATION OF LIMITATIONS

During the performance of Inservice Inspections, the ASME Section XI Code 1989 Edition, no addenda, requires the determination of the ultrasonic examination volume to establish the required beam path angles needed to maximize coverage and verify technique parameters. This information is necessary in those instances where there may be a reduction in the examination volume.

Surface examinations of welded attachments are conducted in accordance with ASME Section XI Code 1995 Edition, 1996 Addenda. Surface examinations are typically conducted on 100% of the weld length plus a defined amount of base material on each side of the weld. Surface areas are calculated in those instances where there may be a reduction in the examination area.

The Code required ultrasonic examination volume or surface examination area for each type of piping weld or nozzle-to-vessel weld is depicted in the figures of IWB-2500 or IWC-2500. As depicted for piping welds, volume width generally constitutes the weld plus 1/4" on each side while volume thickness generally constitutes the lower 1/3 of the piping thickness for the length of the weld. As depicted, for nozzle-to-vessel welds, the volume width generally constitutes the weld plus 1/2t (ts/2) on each side of the weld while volume thickness generally constitutes the entire component thickness (i.e. full volume). The volume changes with variations in weld configuration (e.g. transition between different pipe thickness or nozzle-to-vessel configuration). Therefore, it is necessary to determine the required volume for each group of similar welds to allow setting of scanner limits for automated ultrasonic examinations and scan paths for manual ultrasonic examinations. Surface examination area is generally the weld plus 1/2-inch of base material on each side of the weld.

Reactor Pressure Vessel Nozzle to shell or head weld examination volume has been reduced to ½" beyond the widest part of the boundary of the deposited weld material in lieu of the requirements of ASME Section XI Figures IWB-2500-7 (a) and IWB-2500-7 (b) per Request for Relief No. PDI-2 .

Paragraph IWA-2232 of the Code requires that the ultrasonic examination of piping systems be conducted in accordance with Appendix I of ASME Section XI. Appendix I requires that the ultrasonic examination of piping systems be conducted in accordance with Appendix VIII of ASME Section XI, and the nozzle-to-vessel welds be conducted in accordance with Article 4 of ASME Section V, 1989 Edition as supplemented by Appendix I of ASME Section XI. Appendix VIII and Article 4 define the applicable examination methods (e.g., examination angles, scan directions) to be used during examination. Paragraphs IWA-2221 and IWA-2222 of the ASME Section XI, requires that surface examinations be conducted in accordance with Article 6 or 7, as applicable, of ASME Section V, 1989 Edition. The 1995 Edition, 1996 Addenda will be used for the surface examination requirements of welded attachments.

TVA developed procedure N-GP-28 to provide a standardized methodology for calculation of Code coverage in those instances where configuration or other components cause an examination limitation. Components/welds with limitations were evaluated in terms of the feasibility of other NDE techniques or methods to increase coverage or for Code Case N-460 applicability.

EXAMINATION LIMITATIONS:

A tabulation of NDE examination limitations recorded during the Unit 3/Cycle 10 Inservice Inspection is contained in this Appendix.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000

UNIT: THREE CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.

COMMERCIAL SERVICE DATE: MARCH 1, 1977

NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.

The following items/components had less than 100% R-A/Code coverage achieved and TVA elected to use Code Case N-460 which states that when the entire examination volume or area cannot be examined due to interference by another component or part geometry, a reduction in examination coverage for Class 1 or Class 2 welds may be accepted provided the reduction in coverage for that weld is less than 10%.

SYSTEM	COMPONENT ID	COVERAGE ASME XI	CALCULATED 10CFR50.55a	REPORT NO.
RPV	RCH-3-4V	98%	98%	R-118

The following items/components had examination limitations outside those specified in Code Case N-460. The Inservice Inspection Program 3-SI-4.6.G will be revised to incorporate these limitations in the form of Requests for Relief (RFR). Program revisions, including Requests for Relief, will be submitted to the NRC.

SYSTEM	COMPONENT ID	COVERAGE ASME XI	CALCULATED 10CFR50.55a	REPORT NO.	RFR No.
RHR	DRHR-3-21	100%	50%	R-140	3-ISI-12

The following items/components had examination limitations outside those specified in Code Case N-460. The Inservice Inspection Program 3-SI-4.6.G will be revised to incorporate these limitations in the form of Requests for Relief (RFR). Program revisions, including Requests for Relief, will be submitted to the NRC.

SYSTEM	COMPONENT ID	COVERAGE CALCULATED	REPORT NO.	RFR No.
RPV	N-7	70%	R-125	3-ISI-7 Rev. 01
RPV	N-1B	77%	R-156	3-ISI-7 Rev. 01
RPV	N-2A	77%	R-158	3-ISI-7 Rev. 01
RPV	N-2C	77%	R-160	3-ISI-7 Rev. 01
RPV	N-2E	77%	R-162	3-ISI-7 Rev. 01
RPV	N-3A	77%	R-164	3-ISI-7 Rev. 01
RPV	N-4A	77%	R-166	3-ISI-7 Rev. 01
RPV	N-4F	77%	R-168	3-ISI-7 Rev. 01
RPV	N-5B	71%	R-170	3-ISI-7 Rev. 01
RPV	N-9	74%	R-172	3-ISI-7 Rev. 01

The Reactor Pressure Vessel Support Skirt, Component Number RPV-SUPP-3-1-1A, is accessible for surface examination only from the outside surface. Therefore, a request for relief (RFR) to use Code Case N-323-1 - Alternative Examination for welded Attachments to Pressure Vessels, is required. The Surveillance Instruction 3-SI-4.6.G, Inservice Inspection Program incorporates this examination coverage limitation in the form of Request For Relief 3-ISI-9.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX V

EXAMINATION PLAN

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

The following printout is an outage ISI report designed to meet the reporting requirements of IWA-6000 of the ASME Section XI Code. This report contains Unit 3/Cycle 10 Inservice Inspection data for Code Class 1 and Code Class 2 components selected for ASME Section XI credit. Attachment 2 contains a summary of Augmented examinations performed during Unit 3/Cycle 10 outage. Essential unit and system files are contained herein as a reference to describe abbreviations and features in the printout. The aforementioned precedes the outage ISI report.

Code Class 3 Inservice data and reports are contained in the Browns Ferry Inservice Inspection (ISI) Final Plant Report.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Key to computer weld/feature tracking system

A. CYCLE- Refueling Cycle Number and Unit Number
B. SYSTEM- System/Component

CCWS- Closed Cooling Water System (Reactor Building Closed Cooling Water)
CRDS- Control Rod Drive System
CSS- Core Spray System
EECW- Emergency Equipment Cooling Water System
FPCS- Fuel Pool Cooling System
FWS- Feedwater System
HPCIS- High Pressure Coolant Injection System
MSS- Main Steam System
RCICS- Reactor Core Isolation Cooling System
RECIR- Recirculation System
RHRS- Residual Heat Removal System
RHRSW- Residual Heat Removal Service Water System
RPV- Reactor Pressure Vessel
RWCU- Reactor Water Cleanup System

C. Component Number/Identifyer

D. Drawing- ISI Drawing Number and sheet number from the Surveillance Instruction (SI-4.6.G)

E. Exreq- ASME Section XI Code year and interval (See Note # 1)

F. Category- Code Category

G. Item Number- Code Item Number

H. Exam Scheduled

I. NDE METH- Nondestructive Examination (NDE) Method

ET- Eddy Current Test
MT- Magnetic Particle Test
PT- Penetrant Test
RT- Radiography Test
UT- Ultrasonic Test
VT- Visual Test

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

J. Calibration Standard- If required

K. Exam Date- Date of Inspection

L. Exam Report No.- Examination Report Number

M. Exam Results - P - Pass
R- Rejectable
E- Evaluated acceptable for continued operation by Engineering

O. COMMENTS

NOTE (1): EXREQ Identifyers:

86E-02 - ASME Section XI Code 1986 Edition/ Second Interval

P11-02 - Preservice Examination Cycle 11/ Second Interval

N-491 - Preservice examination during or following initial system heatup and cooldown

B02-02 - Examinations performed to NUREG-0313 & Generic Letter 88-01 for IGSCC detection

B05-02 - Examination of RPV Shell Welds Code Category B-A It. # B1.12 in accordance with 10CFR50.55a (g)(6)(ii)(A)

B07-02 - Examinations performed to the recommendation of GE SIL-571

OTI365 - Augmented examinations of RPV Internals

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

UNIT 3/CYCLE 10
ISI REPORT OF CLASS 1 AND CLASS 2 COMPONENTS

April 30, 2002

Albert Ladd, ANI/ANII, PEC-1C, BFN

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 3 CYCLE 10 REFUELING OUTAGE INSERVICE INSPECTION (ISI) SCAN PLAN, REVISION 3.

Attached for your review is the BFN Unit 3 Cycle 10 refueling outage ISI Scan Plan, Revision 3. The examinations are scheduled to be performed during the Unit 3 outage by BFN Site Engineering/Component Engineering. The examinations are performed to satisfy the requirements of ASME Code Section XI, 1989 Edition, No Addenda.

This document was prepared by Hal Hodges of BFN Component Engineering and coordinated with Fred Froscello and Darlene Tinley of TVAN Inspection Services.

Harold E. Hodges
BFN Component Engineering

Frederick W. Froscello Jr.
Frederick W. Froscello
ISO, ISI/NDE, Supervisor, BFN

Darlene Tinley
ISO, NDE Level III

Albert Ladd 5/29/02
Albert Ladd, ANI/ANII
Concurrence

Reference BF PER 02-004920-000.
HEH 5-2-2002

cc: T. S. Taylor, PEC-1C, BFN
M. L. Turnbow, STC-1I,

see remarks on attachment
PLS return
5/22/02

Revision 003
07/01/2002
Total Examinations: 350

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR POWER PLANT - UNIT 3
EXAMS SCHEDULED FOR CYCLE 10

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
CCWS	3-SI-3.3.11		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
CCWS	3-SI-3.3.11		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
CRDS	3-47B468-248		3-ISI-0144-C-02	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-252		3-ISI-0144-C-02	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-256		3-ISI-0144-C-02	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-285		3-ISI-0144-C-01	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-291		3-ISI-0144-C-01	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		06.00		RGD STRT	
CRDS	3-47B468-294		3-ISI-0144-C-01	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-301		3-ISI-0144-C-01	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
CRDS	3-47B468-301-IA		3-ISI-0144-C-01	10	C3.20	C-C	96E-02	MT	N-MT-6			1.00	WLD ATT	
CRDS	3-47B468-314		3-ISI-0144-C-02	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		12.00		VSL SUP	
CSS	3-47B458-100		3-ISI-0104-C-02	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		12.00		RGD STRT	
CSS	3-47B458-560		3-ISI-0339-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		12.00		VAR SUP	
CSS	3-47B458-75		3-ISI-0104-C-01	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		10.00		RGD STRT	
CSS	3-47B458-81		3-ISI-0104-C-02	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		14.00		RGD HGR	
CSS	3-SI-3.3.6		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
CSS	3-SI-3.3.6		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
CSS	CS-3-R-29		3-ISI-0104-C-01	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		16.00		HRS	
CSS	DSCS-3-02		3-ISI-0331-C-01	10	R1.16C	R-A	89E-02	UT	N-UT-64	BF-79	12.00	0.688	EL	P
CSS	DSCS-3-02		3-ISI-0331-C-01	10	NU0313	C	B02-02	UT	N-UT-64	BF-79	12.00	0.688	EL	P
CSS	DSCS-3-08		3-ISI-0331-C-01	10	R1.16C	R-A	89E-02	UT	N-UT-64	BF-79	12.00	0.688	EL	P
CSS	DSCS-3-08		3-ISI-0331-C-01	10	NU0313	C	B02-02	UT	N-UT-64	BF-79	12.00	0.688	EL	P
CSS	TSCS-3-424		3-ISI-0331-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-75	12.00	0.688	EL	P
EECWS	3-47B451H0002		3-ISI-0390-C-02	10	F1.30A	F-A	89E-02	VT-3	N-VT-1		10.00		RGD STRT	
EECWS	3-47B451R0067		3-ISI-0390-C-01	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		6.00		RGD HGR	
EECWS	3-47B451S0073		3-ISI-0390-C-01	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
EECWS	3-47B451S0076		3-ISI-0390-C-01	10	F1.30A	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
EECWS	3-47B451S0132		3-ISI-0390-C-03	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		08.00		RGD HGR	
EECWS	3-47B451S0135		3-ISI-0390-C-03	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
EECWS	3-47B451S0142		3-ISI-0390-C-02	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		06.00		RGD HGR	
EECWS	3-47B451S0309		3-ISI-0390-C-02	10	F1.30B	F-A	89E-02	VT-3	N-VT-1		10.00		RGD ANCH	
EECWS	3-SI-3.3.14.A			10	D2.10	D-B	89E-02	VT-2	N-VT-4					
EECWS	3-SI-3.3.14.B			10	D2.10	D-B	89E-02	VT-2	N-VT-4					
FPCS	3-SI-3.3.3		N/A	10	D2.10	D-B	89E-02	VT-2	N-VT-4					
FWS	3-47B415-21		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		12.00		SNBR	

SORT ORDER: SYSTEM-WELDNO

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
FWS	3-47B415-21		3-ISI-0336-C-01	10	F1.10D	F-A	P07-02	VT-3	N-VT-1		12.00		SNBR	
FWS	3-47B415-22		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		12.00		SNBR	
FWS	3-47B415-23		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		12.00		SNBR	
FWS	3-47B415-25		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		20.00		SNBR	
FWS	3-47B415-25		3-ISI-0336-C-01	10	F1.10D	F-A	P07-02	VT-3	N-VT-1		20.00		SNBR	
FWS	3-47B415-36		3-ISI-0336-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		12.00		CFS	
FWS	3-47B415-36-IA		3-ISI-0336-C-01	10	B10.20	B-K	96E-02	MT	N-MT-6		12.00	1.500	WLD ATT	
FWS	3-47B415-41		3-ISI-0336-C-01	10	F1.40C	F-A	89E-02	VT-3	N-VT-1		24.00		VAR SUP	
FWS	3-47B415-41-IA		3-ISI-0336-C-01	10	B10.40	B-K	96E-02	MT	N-MT-6		24.00	2.000	WLD ATT	
FWS	3-47B415-59		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		12.00		SNBR	
FWS	3-47B415-59-IA		3-ISI-0336-C-01	10	B10.20	B-K	96E-02	MT	N-MT-6		12.00	0.500	WLD ATT	
FWS	3-47B415-67		3-ISI-0336-C-01	10	F1.10D	F-A	89E-02	VT-3	N-VT-1		24.00		SNBR	
FWS	3-47B415-67-IA		3-ISI-0336-C-01	10	B10.20	B-K	96E-02	MT	N-MT-6		24.00	0.750	WLD ATT	
FWS	3-554		3-ISI-0327-C-01	10	B12.50	B-M-2	89E-02	VT-1	N-VT-1		24.00	0.994	INT	
FWS	3-554		3-ISI-0327-C-01	10	B12.50	B-M-2	89E-02	VT-3	N-VT-1		24.00	0.994	INT	
FWS	3-554		3-ISI-0327-C-01	10	B12.50	B-M-2	P07-02	VT-3	N-VT-1		24.00	0.994	INT	
FWS	3RFWA-13T	3-003-036	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	24.00	1.531	GRID	
FWS	3RFWA-16T	3-003-036	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	20.00	1.281	GRID	
FWS	3RFWA-27E	3-003-037	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	12.75	0.844	GRID	
FWS	3RFWB-13T	3-003-040	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	24.00	1.531	GRID	
FWS	3RFWB-16T	3-003-040	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	20.00	1.281	GRID	
FWS	3RFWB-20E	3-003-041	3-ISI-0327-C-01	10	R1.18	R-A	89E-02	UT	N-UT-26	Step Wedge	12.75	0.844	GRID	
FWS	GFW-3-09		3-ISI-0327-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-75	12.00	0.566	EL	P
FWS	GFW-3-15		3-ISI-0327-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-75	12.00	0.566	RED TEE	EL
FWS	KFW-3-38		3-ISI-0327-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-75	12.00	0.566	EL	P
HPCIS	3-47B455-621		3-ISI-0335-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		10.00		VAR SUP	
HPCIS	3-47B455-635		3-CHM-2413-C-02	10	F1.20A	F-A	P07-02	VT-3	N-VT-1		10.00		RGD HGR	
HPCIS	3-SI-3.3.9		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
HPCIS	3-SI-3.3.9		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
HPCIS	THPCI-3-070A		3-ISI-0333-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-42	10.00	0.593	P	P
MSS	3-47B400-114		3-ISI-0338-C-02	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		26.00		CFS	
MSS	3-47B400-74		3-ISI-0338-C-01	10	F1.10D	F-A	P07-02	VT-3	N-VT-1		26.00		SNBR	
MSS	3-47B400-94		3-ISI-0355-C-01	10	F1.20B	F-A	89E-02	VT-3	N-VT-1				RGD ANCH	
MSS	3-SI-3.3.1.C		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
MSS	3-SI-3.3.1.C		N/A	10	C7.50	C-H	89E-02	VT-2	N-VT-4					
MSS	3-SI-3.3.1.C		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
MSS	3C RFPT Exhaust Line	3-001-026		10	R1.18	R-A	89E-02	VT	BOP-VT-2				FAC Comp	
MSS	3HDVZ-SJAE-FCV155-4P	3-001-002		10	R1.18	R-A	89E-02	UT	N-UT-26				GRID	
MSS	B2 Cross under	3-001-016		10	R1.18	R-A	89E-02	VT	BOP-VT-2				FAC Comp	
MSS	C2 Cross over	3-001-021		10	R1.18	R-A	89E-02	VT	BOP-VT-2				FAC Comp	

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
MSS	GMS-3-06		3-ISI-0329-C-01	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-104	26.00	0.950	P	EL
MSS	GMS-3-24		3-ISI-0329-C-02	10	TS3432	B-J	B04-02	UT	N-UT-76	BF-104	26.00	0.950	EL	TEE
MSS	MSBC-3-08		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	MSBC-3-09		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	MSBC-3-11		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-005-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-019-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-019-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	P07-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-022-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-041-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-041-VBC		3-ISI-0313-B-01	10	B7.70	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-179-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
MSS	PCV1-3-180-PBC		3-ISI-0313-B-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
RCICS	3-SI-3.3.10		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
RCICS	3-SI-3.3.10		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RECIR	3-47B465-482		3-ISI-0337-C-02	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		28.00		VAR SUP	
RECIR	3-47B465-483		3-ISI-0337-C-02	10	F1.40C	F-A	89E-02	VT-3	N-VT-1		28.00		CFS	
RECIR	3-47B465-504		3-ISI-0337-C-02	10	F1.40D	F-A	89E-02	VT-3	N-VT-1				SNBR	
RECIR	GR-3-63		3-ISI-0328-C-02	10	NU0313	E	B02-02	UT	N-UT-64	BF-57	28.00	1.138	VLV	P
RECIR	KR-3-45		3-ISI-0328-C-01	10	NU0313	C	B02-02	UT	N-UT-64	BF-57	28.00	1.138	P	EL
RECIR	KR-3-50		3-ISI-0328-C-02	10	NU0313	C	B02-02	UT	N-UT-64	BF-57	28.00	1.138	P	EL
RECIR	RBC-3-1		3-ISI-0328-C-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
RHRS	3-47B452-1382		3-ISI-0395-C-07	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		20.00		SNBR	
RHRS	3-47B452-1426		3-ISI-0395-C-04	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		20.00		SNBR	
RHRS	3-47B452-1426-IA		3-ISI-0395-C-04	10	C3.20	C-C	96E-02	MT	N-MT-6			0.625	WLD ATT	
RHRS	3-47B452-1456		3-ISI-0395-C-09	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		20.00		SNBR	
RHRS	3-47B452-1474-IA		3-ISI-0395-C-09	10	C3.20	C-C	96E-02	MT	N-MT-6			1.000	WLD ATT	
RHRS	3-47B452-1487		3-ISI-0395-C-11	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		24.00		RGD HGR	
RHRS	3-47B452-1496		3-ISI-0395-C-06	10	F1.20B	F-A	89E-02	VT-3	N-VT-1		20.00		RGD HGR	
RHRS	3-47B452-1496-IA		3-ISI-0395-C-06	10	C3.20	C-C	96E-02	MT	N-MT-6			1.00	WLD ATT	
RHRS	3-47B452-1537		3-ISI-0395-C-08	10	F1.20A	F-A	89E-02	VT-3	N-VT-1		24.00		RGD HGR	
RHRS	3-47B452-1537-IA		3-ISI-0395-C-08	10	C3.20	C-C	96E-02	MT	N-MT-6			0.500	WLD ATT	
RHRS	3-47B452-1557-IA		3-ISI-0395-C-10	10	C3.20	C-C	96E-02	MT	N-MT-6			0.875	WLD ATT	
RHRS	3-47B452-3033		3-ISI-0340-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		24.00		VAR SUP	
RHRS	3-47B452-3044		3-ISI-0340-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		20.00		VAR SUP	
RHRS	3-SI-3.3.8.A		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
RHRS	3-SI-3.3.8.A		N/A	10	C7.50	C-H	89E-02	VT-2	N-VT-4					
RHRS	3-SI-3.3.8.B			10	C7.30	C-H	89E-02	VT-2	N-VT-4					
RHRS	3-SI-3.3.8.B			10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RHRS	3-SI-3.3.8.C		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
RHRS	3-SI-3.3.8.C		N/A	10	C7.50	C-H	89E-02	VT-2	N-VT-4					
RHRS	3-SI-3.3.8.C		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RHRS	DRHR-3-03		3-ISI-0330-C-01	10	NU0313	D	B02-02	UT	N-UT-64	BF-57	24.00	1.219	VLV	FH
RHRS	DRHR-3-03B		3-ISI-0330-C-01	10	R1.16G	R-A	89E-02	VT-2	N-VT-4		24.00	1.219	P	P
RHRS	DRHR-3-03B		3-ISI-0330-C-01	10	NU0313	G	B02-02	VT-2	N-VT-4		24.00	1.219	P	P
RHRS	DRHR-3-12		3-ISI-0330-C-01	10	NU0313	D	B02-02	UT	N-UT-64	BF-57	24.00	1.219	VLV	FH
RHRS	DRHR-3-13B		3-ISI-0330-C-01	10	R1.16G	R-A	89E-02	VT-2	N-VT-4		24.00	1.219	P	P
RHRS	DRHR-3-13B		3-ISI-0330-C-01	10	NU0313	G	B02-02	VT-2	N-VT-4		24.00	1.219	P	P
RHRS	DRHR-3-21		3-ISI-0330-C-01	10	R1.16C	R-A	89E-02	UT	N-UT-64	BF-87	20.00	1.031	EL	VLV
RHRS	DRHR-3-21		3-ISI-0330-C-01	10	NU0313	C	B02-02	UT	N-UT-64	BF-87	20.00	1.031	EL	VLV
RHRS	DSRHR-3-04		3-ISI-0330-C-01	10	NU0313	C	B02-02	UT	N-UT-64	BF-57	24.00	1.219	P	EL
RHRS	DSRHR-3-04		3-ISI-0330-C-01	10	TS3432	B-J	B04-02	UT	N-UT-64	BF-57	24.00	1.219	P	EL
RHRS	RHR-3-002-G001		3-ISI-0330-C-01	10	R1.11	R-A	89E-02	UT	N-UT-64	BF-57	24.00	1.219	P	TEE
RHRS	RHR-3-002-G003		3-ISI-0330-C-01	10	R1.11	R-A	89E-02	UT	N-UT-64	BF-57	24.00	1.219	P	TEE
RHRS	RHRG-3-05-B		3-ISI-0422-C-01	10	C2.33	C-B	89E-02	VT-2	N-VT-4				NOZ	SHL
RHRS	RHRG-3-06A-B		3-ISI-0422-C-01	10	C2.31	C-B	89E-02	MT	N-MT-6				SHL	PL
RHRS	RHRG-3-06B-B		3-ISI-0422-C-01	10	C2.31	C-B	89E-02	MT	N-MT-6				NOZ	PL
RHRS	RHRG-3-06B-B		3-ISI-0422-C-01	10	C2.33	C-B	89E-02	VT-2	N-VT-4				NOZ	PL
RHRS	RHRG-3-06B-B		3-ISI-0422-C-01	10	C2.31	C-B	A01-02	PT	N-PT-9				NOZ	PL
RHRS	RHRG-3-06B-B		3-ISI-0422-C-01	10	C2.31	C-B	A01-02	UT	N-UT-26				NOZ	PL
RHRS	RHRG-3-08-B		3-ISI-0422-C-01	10	C1.10	C-A	89E-02	UT	N-UT-18	BF-40			SHL	FLG
RHRS	RHRG-3-12-B		3-ISI-0422-C-01	10	F1.40B	F-A	89E-02	VT-3	N-VT-1				WLD ATT	SHL
RHRS	RHRG-3-13-B		3-ISI-0422-C-01	10	F1.40B	F-A	89E-02	VT-3	N-VT-1				WLD ATT	SHL
RHRS	RHRG-3-14-B		3-ISI-0422-C-01	10	F1.40B	F-A	89E-02	VT-3	N-VT-1				WLD ATT	SHL
RHRS	TRHR-3-222		ISI-0393-C-16	10	R1.11	R-A	89E-02	UT	N-UT-76	BF-101	24.00	0.375	VLV	EL
RHRS	TRHR-3-246		ISI-0393-C-16	10	R1.11	R-A	89E-02	UT	N-UT-76	BF-101	24.00	0.375	VLV	EL
RHRS	TRHR-3-281		3-ISI-0393-C-14	10	R1.11	R-A	89E-02	UT	N-UT-76	BF-101	24.00	0.375	VLV	EL
RHRS	TRHR-3-293		3-ISI-0393-C-14	10	R1.11	R-A	89E-02	UT	N-UT-76	BF-101	24.00	0.375	TEE	EL
RHRSW	3-47B450-252-IA		3-CHM-2416-C-02	10	D1.20	D-A	96E-02	VT-1	N-VT-1			0.750	WLD ATT	
RHRSW	3-47B450-293-IA		3-CHM-2416-C-03	10	D1.20	D-A	96E-02	VT-1	N-VT-1			0.750	WLD ATT	
RHRSW	3-SI-3.3.13			10	D2.10	D-B	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.1.A		N/A	10	B15.70	B-P	89E-02	VT-2	N-VT-2					
RPV	3-SI-3.3.1.A		N/A	10	B15.10	B-P	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.1.A		N/A	10	B15.50	B-P	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.1.A		N/A	10	B15.60	B-P	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.2.A		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.2.A		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.2.B		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.2.B		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RPV	3-SI-3.3.7		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
RPV	3-SI-3.3.7		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
RPV	N10-SE		ISI-0445-C-01	10	N/A	SIL-571	B06-02	UT	N-UT-64	SQ-85	2.00	0.250	NOZ	SE
RPV	N1B		3-ISI-0328-C-02	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	28.00	6.600	SHL	NOZ
RPV	N1B-IR		3-ISI-0328-C-02	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-84-IR			NOZ IR	
RPV	N2A		3-ISI-0328-C-02	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	12.00	6.600	NOZ	SHL
RPV	N2A-IR		3-ISI-0328-C-02	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-85-IR			NOZ IR	
RPV	N2C		3-ISI-0328-C-02	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	12.00	6.600	NOZ	SHL
RPV	N2C-IR		3-ISI-0328-C-02	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-85-IR			NOZ IR	
RPV	N2E		3-ISI-0328-C-02	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	12.00	6.600	NOZ	SHL
RPV	N2E-IR		3-ISI-0328-C-02	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-85-IR			NOZ IR	
RPV	N3A		3-ISI-0329-C-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	26.00	6.600	SHL	NOZ
RPV	N3A-IR		3-ISI-0329-C-01	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-84-IR			NOZ IR	
RPV	N4A		3-ISI-0327-C-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	12.00	6.600	NOZ	SHL
RPV	N4A-IR		3-ISI-0327-C-01	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-84-IR			NOZ IR	
RPV	N4F		3-ISI-0327-C-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	12.00	6.600	NOZ	SHL
RPV	N4F-IR		3-ISI-0327-C-01	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-84-IR			NOZ IR	
RPV	N5B		3-ISI-0331-C-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18	10.00	6.600	NOZ	SHL
RPV	N5B-IR		3-ISI-0220-C-01	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-85-IR			NOZ IR	
RPV	N6B-3-2-BC		3-ISI-0295-A-01	10	B7.50	B-G-2	89E-02	VT-1	N-VT-1				BLTG	
RPV	N7		3-ISI-0295-A-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-19	4.000	4.000	CL HD	NOZ
RPV	N7-IR		3-ISI-0295-A-01	10	B3.100	B-D	89E-02	VT-1	N-VT-1				NOZ IR	
RPV	N9		3-ISI-0220-C-01	10	B3.90	B-D	89E-02	UT	N-UT-9	BF-18		6.600	SHL	NOZ
RPV	N9-IR		3-ISI-0220-C-01	10	B3.100	B-D	89E-02	UT	N-UT-55	BF-85-IR			NOZ IR	
RPV	RCH-3-2C		3-ISI-0295-A-01	10	B1.40	B-A	89E-02	UT	N-UT-9		~264	4.00	HD	FLG
RPV	RCH-3-2C-FLEX		3-ISI-0295-A-01	10	B1.40	B-A	89E-02	MT	N-MT-6		~264	4.00	CH FLG	HD
RPV	RCH-3-3V		3-ISI-0295-A-01	10	B1.22	B-A	89E-02	UT	N-UT-78	BF-19 BF-18	~96L	4.00	VERT LS	
RPV	RCH-3-4V		3-ISI-0295-A-01	10	B1.22	B-A	89E-02	UT	N-UT-78	BF-19 BF-18	~96L	4.00	VERT LS	
RPV	RPV-BUSH-3-31		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-32		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-33		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-34		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-35		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-36		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-37		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-38		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-39		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-40		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-41		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
RPV	RPV-BUSH-3-42		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-43		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-44		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-45		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-46		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-47		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-48		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-49		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-50		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-51		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-52		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-53		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-54		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-55		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-56		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-57		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-58		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-59		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-BUSH-3-60		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1				BUSH	
RPV	RPV-LIGS-3-31		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-32		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-33		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-34		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-35		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-36		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-37		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-38		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-39		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-40		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-41		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-42		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-43		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-44		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-45		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-46		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-47		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-48		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-49		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-50		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-51		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
RPV	RPV-LIGS-3-52		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-53		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-54		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-55		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-56		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-57		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-58		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-59		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-LIGS-3-60		3-ISI-0267-C-01	10	B6.40	B-G-1	89E-02	UT	N-UT-37	BF-126		~13	LIG	
RPV	RPV-NUTS-3-31		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-32		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-33		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-34		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-35		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-36		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-37		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-38		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-39		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-40		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-41		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-42		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-43		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-44		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-45		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-46		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-47		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-48		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-49		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-50		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-51		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-52		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-53		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-54		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-55		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-56		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-57		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-58		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-59		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-NUTS-3-60		3-ISI-0267-C-01	10	B6.10	B-G-1	89E-02	VT	N-VT-1		08.50		CL HD BLT	
RPV	RPV-STUDS-3-22		3-ISI-0267-C-01	10	B6.30	B-G-1	89E-02	MT	N-MT-6		06.00	65.56	CL HD BLT	

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHICK	COMPDESA	COMPDESB
RPV	RPV-STUDS-3-23		3-ISI-0267-C-01	10	B6.30	B-G-1	89E-02	MT	N-MT-6		06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-24		3-ISI-0267-C-01	10	B6.30	B-G-1	89E-02	MT	N-MT-6		06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-25		3-ISI-0267-C-01	10	B6.30	B-G-1	89E-02	MT	N-MT-6		06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-31		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-32		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-33		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-34		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-35		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-36		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-37		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-38		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-39		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-40		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-41		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-42		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-43		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-44		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-45		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-46		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-47		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-48		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-49		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-50		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-51		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-52		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-53		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-54		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-55		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-56		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-57		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-58		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-59		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-STUDS-3-60		3-ISI-0267-C-01	10	B6.20	B-G-1	89E-02	UT	N-UT-67	BF-126	06.00	65.56	CL HD BLT	
RPV	RPV-SUPP-3-1		3-ISI-0416-C-02	10	F1.40B	F-A	89E-02	VT-3	N-VT-1				STAB	
RPV	RPV-SUPP-3-1-IA		3-ISI-0416-C-02	10	B10.10	B-K	96E-02	MT	N-MT-6				IA	
RPV	RPV-SUPP-3-1-IA		3-ISI-0416-C-02	10	B10.10	B-K	96E-02	UT	N-UT-7	BNP-60			IA	
RPV	RPV-WASH-3-31		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-32		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-33		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-34		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	

SYSTEM	WELDNO	SEGMENT	ISONO	CYCLE	ITEMNO	CATEGORY	EXREQ	EXSCHD	NDEPROC	CALSTD	COMPDIA	NOMTHCK	COMPDESA	COMPDESB
RPV	RPV-WASH-3-35		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-36		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-37		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-38		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-39		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-40		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-41		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-42		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-43		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-44		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-45		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-46		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-47		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-48		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-49		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-50		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-51		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-52		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-53		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-54		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-55		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-56		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-57		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-58		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-59		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RPV	RPV-WASH-3-60		3-ISI-0267-C-01	10	B6.50	B-G-1	89E-02	VT-1	N-VT-1		06.00	08.62	WASH	
RWCUS	3-47B406-286		3-ISI-0334-C-01	10	F1.10C	F-A	89E-02	VT-3	N-VT-1		06.00		VAR SUP	
RWCUS	3-47B406-286-IA		3-ISI-0334-C-01	10	B10.20	B-K	96E-02	PT	N-PT-9			1.000	WLD ATT	
RWCUS	RWCU-3-001-G016		3-ISI-0332-C-01	10	TS3432	B-J	B04-02	UT	N-UT-64	BF-118	06.00	0.432	EL	P
RWCUS	RWCU-3-001-G017		3-ISI-0332-C-01	10	TS3432	B-J	B04-02	UT	N-UT-64	BF-118	06.00	0.432	P	EL
RWCUS	RWCU-3-001-G018		3-ISI-0332-C-01	10	TS3432	B-J	B04-02	UT	N-UT-64	BF-118	06.00	0.432	EL	P
SLCS	3-SI-3.3.4		N/A	10	C7.50	C-H	89E-02	VT-2	N-VT-1					
SLCS	3-SI-3.3.4		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
SLCS	3-SI-3.3.4		N/A	10	C7.50	C-H	89E-02	VT-2	N-VT-4					
SLCS	3-SI-3.3.4		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					
SWQS	3-SI-3.3.15		N/A	10	C7.30	C-H	89E-02	VT-2	N-VT-4					
SWQS	3-SI-3.3.15		N/A	10	C7.70	C-H	89E-02	VT-2	N-VT-4					

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ASME SECTION XI PRESSURE TESTS CLASS 1, 2, AND 3

System	Weld No	ISO No.	Cycle	Exreq	Cat	Item No	ExSchd	Date	Report No	Results	Comments
RHRS	RHRG-3-06-B	3-ISI-0422-C-01 01	10	89E-02	C-B	C2.33	VT-2				
RHRS	RHRG-3-05-B	3-ISI-0422-C-01 01	10	89E-02	C-B	C2.33	VT-2				
RHRS	DRHR-3-13B	3-ISI-0330-C-01 01	10	B02-02	G	NU0313	VT-2	20020407	R155	A	
RHRS	DRHR-3-13B	3-ISI-0330-C-01 01	10	89E-02	R-A	R1.16G	VT-2	20020407	R155	A	
RHRS	DRHR-3-03B	3-ISI-0330-C-01 01	10	B02-02	G	NU0313	VT-2	20020407	R155	A	
RHRS	DRHR-3-03B	3-ISI-0330-C-01 01	10	89E-02	R-A	R1.16G	VT-2	20020407	R155	A	
HPCIS	3-SI-3.3.9	N/A	10	89E-02	C-H	C7.30	VT-2	20020110	R017	A	
HPCIS	3-SI-3.3.9	N/A	10	89E-02	C-H	C7.70	VT-2	20020110	R017	A	
RHRS	3-SI-3.3.8.C	N/A	10	89E-02	C-H	C7.30	VT-2	20010216	R008	A	Loop 2
RHRS	3-SI-3.3.8.C	N/A	10	89E-02	C-H	C7.50	VT-2	20010216	R008	A	
RHRS	3-SI-3.3.8.C	N/A	10	89E-02	C-H	C7.70	VT-2	20010216	R008	A	
RHRS	3-SI-3.3.8.B		10	89E-02	C-H	C7.30	VT-2	20020327	R064	A	
RHRS	3-SI-3.3.8.B		10	89E-02	C-H	C7.70	VT-2	20020327	R064	A	
RHRS	3-SI-3.3.8.A	N/A	10	89E-02	C-H	C7.30	VT-2	20010302	R009	A	Partial for remainder see R006
RHRS	3-SI-3.3.8.A	N/A	10	89E-02	C-H	C7.30	VT-2	20001207	R006	A	Partial for remainder see R009
RHRS	3-SI-3.3.8.A	N/A	10	89E-02	C-H	C7.50	VT-2	20001207	R006	A	Partial for remainder see R009
RHRS	3-SI-3.3.8.A	N/A	10	89E-02	C-H	C7.50	VT-2	20010302	R009	A	Partial for remainder see R006
RPV	3-SI-3.3.7	N/A	10	89E-02	C-H	C7.30	VT-2	20001101	R004	A	
RPV	3-SI-3.3.7	N/A	10	89E-02	C-H	C7.70	VT-2	20001101	R004	A	
CSS	3-SI-3.3.6	N/A	10	89E-02	C-H	C7.30	VT-2	20010720	R012	A	Loop 1 (A&C)
CSS	3-SI-3.3.6	N/A	10	89E-02	C-H	C7.30	VT-2	20010928	R013	A	Loop 2 (B&D)
CSS	3-SI-3.3.6	N/A	10	89E-02	C-H	C7.70	VT-2	20010928	R013	A	Loop 2 (B&D)
CSS	3-SI-3.3.6	N/A	10	89E-02	C-H	C7.70	VT-2	20010720	R012	A	Loop 1 (A&C)
SLCS	3-SI-3.3.4	N/A	10	89E-02	C-H	C7.30	VT-2	20020331	R065	A	
SLCS	3-SI-3.3.4	N/A	10	89E-02	C-H	C7.50	VT-2	20000801	R002	A	Examined IAW IWA-5250 (a)(2)
SLCS	3-SI-3.3.4	N/A	10	89E-02	C-H	C7.50	VT-2	20020331	R065	A	
SLCS	3-SI-3.3.4	N/A	10	89E-02	C-H	C7.70	VT-2	20020331	R065	A	
FPCS	3-SI-3.3.3	N/A	10	89E-02	D-B	D2.10	VT-2	20020328	R066	A	
RPV	3-SI-3.3.2.B	N/A	10	89E-02	C-H	C7.30	VT-2	20020407	R068	A	
RPV	3-SI-3.3.2.B	N/A	10	89E-02	C-H	C7.70	VT-2	20020407	R068	A	
RPV	3-SI-3.3.2.A	N/A	10	89E-02	C-H	C7.30	VT-2	20020407	R067	A	
RPV	3-SI-3.3.2.A	N/A	10	89E-02	C-H	C7.70	VT-2	20020407	R067	A	
SWQS	3-SI-3.3.15	N/A	10	89E-02	C-H	C7.30	VT-2	20010625	R010	A	
SWQS	3-SI-3.3.15	N/A	10	89E-02	C-H	C7.70	VT-2	20010625	R010	A	
EECWS	3-SI-3.3.14.B		10	89E-02	D-B	D2.10	VT-2	20011204	R016	A	
EECWS	3-SI-3.3.14.A		10	89E-02	D-B	D2.10	VT-2	20011101	R015	A	

RHRSW	3-SI-3.3.13		10	89E-02	D-B	D2.10	VT-2	20011001	R014	A
CCWS	3-SI-3.3.11	N/A	10	89E-02	C-H	C7.30	VT-2	20010102	R007	A
CCWS	3-SI-3.3.11	N/A	10	89E-02	C-H	C7.70	VT-2	20010202	R007	A
RCICS	3-SI-3.3.10	N/A	10	89E-02	C-H	C7.30	VT-2	20010711	R011	A
RCICS	3-SI-3.3.10	N/A	10	89E-02	C-H	C7.70	VT-2	20010711	R011	A
MSS	3-SI-3.3.1.C	N/A	10	89E-02	C-H	C7.30	VT-2	20020503	R001	A
MSS	3-SI-3.3.1.C	N/A	10	89E-02	C-H	C7.50	VT-2	20020503	R001	A
MSS	3-SI-3.3.1.C	N/A	10	89E-02	C-H	C7.70	VT-2	20020503	R001	A
RPV	3-SI-3.3.1.A	N/A	10	89E-02	B-P	B15.10	VT-2	20020407	R155	A
RPV	3-SI-3.3.1.A	N/A	10	89E-02	B-P	B15.50	VT-2	20020407	R155	A
RPV	3-SI-3.3.1.A	N/A	10	89E-02	B-P	B15.60	VT-2	20020407	R155	A
RPV	3-SI-3.3.1.A	N/A	10	89E-02	B-P	B15.70	VT-2	20020407	R155	A

EXAM REQUIREMENTS
VT-2

OWNER: TENNESSEE VALLEY AUTHORITY
NUCLEAR POWER GROUP
1101 MARKET STREET
CHATTANOOGA, TENNESSEE 37402

PLANT: BROWNS FERRY NUCLEAR PLANT
P.O. BOX 2000
DECATUR, ALABAMA 35609-2000

UNIT: THREE CYCLE: 10 COMMERCIAL SERVICE DATE: MARCH 1, 1977

CERTIFICATION OF AUTHORIZATION: NOT REQUIRED
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED

System	Component Number	ISO Drawing	Exam Requirement	Category	Item Number	Exam Scheduled	Calibration Standard	Exam Date	Exam Report	Exam Results	Comments
CCWS	3-SI-3.3.11	N/A	89E-02	C-H	C7.30	VT-2		20010102	R007	A	
CCWS	3-SI-3.3.11	N/A	89E-02	C-H	C7.70	VT-2		20010202	R007	A	
CSS	3-SI-3.3.6	N/A	89E-02	C-H	C7.30	VT-2		20010720	R012	A	Loop 1 (A&C)
CSS	3-SI-3.3.6	N/A	89E-02	C-H	C7.30	VT-2		20010928	R013	A	Loop 2 (B&D)
CSS	3-SI-3.3.6	N/A	89E-02	C-H	C7.70	VT-2		20010720	R012	A	Loop 1 (A&C)
CSS	3-SI-3.3.6	N/A	89E-02	C-H	C7.70	VT-2		20010928	R013	A	Loop 2 (B&D)
EECW	3-SI-3.3.14.A		89E-02	D-B	D2.10	VT-2		20011101	R015	A	
EECW	3-SI-3.3.14.B		89E-02	D-B	D2.10	VT-2		20011204	R016	A	
FPCS	3-SI-3.3.3	N/A	89E-02	D-B	D2.10	VT-2		20020328	R066	A	
HPCIS	3-SI-3.3.9	N/A	89E-02	C-H	C7.30	VT-2		20020110	R017	A	
HPCIS	3-SI-3.3.9	N/A	89E-02	C-H	C7.70	VT-2		20020110	R017	A	
MSS	3-SI-3.3.1.C	N/A	89E-02	C-H	C7.30	VT-2		20020503	R001	P	
MSS	3-SI-3.3.1.C	N/A	89E-02	C-H	C7.50	VT-2		20020503	R001	P	
MSS	3-SI-3.3.1.C	N/A	89E-02	C-H	C7.70	VT-2		20020503	R001	P	
RCICS	3-SI-3.3.10	N/A	89E-02	C-H	C7.30	VT-2		20010711	R011	A	
RCICS	3-SI-3.3.10	N/A	89E-02	C-H	C7.70	VT-2		20010711	R011	A	
RHRS	3-SI-3.3.8.A	N/A	89E-02	C-H	C7.30	VT-2		20001207	R006	A	Partial for remainder see R009
RHRS	3-SI-3.3.8.A	N/A	89E-02	C-H	C7.30	VT-2		20010302	R009	A	Partial for remainder see R006
RHRS	3-SI-3.3.8.A	N/A	89E-02	C-H	C7.50	VT-2		20001207	R006	A	Partial for remainder see R009
RHRS	3-SI-3.3.8.A	N/A	89E-02	C-H	C7.50	VT-2		20010302	R009	A	Partial for remainder see R006
RHRS	3-SI-3.3.8.B		89E-02	C-H	C7.30	VT-2		20020327	R064	A	
RHRS	3-SI-3.3.8.B		89E-02	C-H	C7.70	VT-2		20020327	R064	A	

EXAM REQUIREMENTS
VT-2

OWNER: TENNESSEE VALLEY AUTHORITY
NUCLEAR POWER GROUP
1101 MARKET STREET
CHATTANOOGA, TENNESSEE 37402

PLANT: BROWNS FERRY NUCLEAR PLANT
P.O. BOX 2000
DECATUR, ALABAMA 35609-2000

UNIT: THREE CYCLE: 10 COMMERCIAL SERVICE DATE: MARCH 1, 1977

CERTIFICATION OF AUTHORIZATION: NOT REQUIRED
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED

System	Component Number	ISO Drawing	Exam Requirement	Category	Item Number	Exam Scheduled	Calibration Standard	Exam Date	Exam Report	Exam Results	Comments
RHRS	3-SI-3.3.8.C	N/A	89E-02	C-H	C7.30	VT-2		20010216	R008	A	Loop 2
RHRS	3-SI-3.3.8.C	N/A	89E-02	C-H	C7.50	VT-2		20010216	R008	A	
RHRS	3-SI-3.3.8.C	N/A	89E-02	C-H	C7.70	VT-2		20010216	R008	A	
RHRS	DRHR-3-03B	3-ISI-0330-C-01 01	B02-02	G	NU0313	VT-2					
RHRS	DRHR-3-03B	3-ISI-0330-C-01 01	89E-02	R-A	R1.16G	VT-2					
RHRS	DRHR-3-13B	3-ISI-0330-C-01 01	B02-02	G	NU0313	VT-2					
RHRS	DRHR-3-13B	3-ISI-0330-C-01 01	89E-02	R-A	R1.16G	VT-2					
RHRS	RHRG-3-05-B	3-ISI-0422-C-01 01	89E-02	C-B	C2.33	VT-2					
RHRS	RHRG-3-06-B	3-ISI-0422-C-01 01	89E-02	C-B	C2.33	VT-2					
RHRS	3-SI-3.3.13		89E-02	D-B	D2.10	VT-2		20011001	R014	A	
RPV	3-SI-3.3.1.A	N/A	89E-02	B-P	B15.10	VT-2		20020407	R155	A	
RPV	3-SI-3.3.1.A	N/A	89E-02	B-P	B15.50	VT-2		20020407	R155	A	
RPV	3-SI-3.3.1.A	N/A	89E-02	B-P	B15.60	VT-2		20020407	R155	A	
RPV	3-SI-3.3.1.A	N/A	89E-02	B-P	B15.70	VT-2		20020407	R155	A	
RPV	3-SI-3.3.2.A	N/A	89E-02	C-H	C7.30	VT-2		20020407	R067	A	
RPV	3-SI-3.3.2.A	N/A	89E-02	C-H	C7.70	VT-2		20020407	R067	A	
RPV	3-SI-3.3.2.B	N/A	89E-02	C-H	C7.30	VT-2		20020407	R068	A	
RPV	3-SI-3.3.2.B	N/A	89E-02	C-H	C7.70	VT-2		20020407	R068	A	
RPV	3-SI-3.3.7	N/A	89E-02	C-H	C7.30	VT-2		20001101	R004	P	
RPV	3-SI-3.3.7	N/A	89E-02	C-H	C7.70	VT-2		20001101	R004	P	
SLCS	3-SI-3.3.4	N/A	89E-02	C-H	C7.30	VT-2		20020331	R065	A	
SLCS	3-SI-3.3.4	N/A	89E-02	C-H	C7.50	VT-2		20000801	R002	P	Examined IAW IWA-5250 (a)(2)

EXAM REQUIREMENTS
VT-2

OWNER: TENNESSEE VALLEY AUTHORITY
NUCLEAR POWER GROUP
1101 MARKET STREET
CHATTANOOGA, TENNESSEE 37402

PLANT: BROWNS FERRY NUCLEAR PLANT
P.O. BOX 2000
DECATUR, ALABAMA 35609-2000

UNIT: THREE CYCLE: 10 COMMERCIAL SERVICE DATE: MARCH 1, 1977

CERTIFICATION OF AUTHORIZATION: NOT REQUIRED
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED

System	Component Number	ISO Drawing	Exam Requirement	Category	Item Number	Exam Scheduled	Calibration Standard	Exam Date	Exam Report	Exam Results	Comments
SLCS	3-SI-3.3.4	N/A	89E-02	C-H	C7.50	VT-2		20020331	R065	A	
SLCS	3-SI-3.3.4	N/A	89E-02	C-H	C7.70	VT-2		20020331	R065	A	
SWQS	3-SI-3.3.15	N/A	89E-02	C-H	C7.30	VT-2		20010625	R010	A	
SWQS	3-SI-3.3.15	N/A	89E-02	C-H	C7.70	VT-2		20010625	R010	A	

OWNER: TENNESSEE VALLEY AUTHORITY
NUCLEAR POWER GROUP
1101 MARKET STREET
CHATTANOOGA, TENNESSEE 37402

PLANT: BROWNS FERRY NUCLEAR PLANT
P.O. BOX 2000
DECATUR, ALABAMA 35609-2000

EXAM REQUIREMENT B02-02
B04-02
B06-02

UNIT: THREE CYCLE: 10 COMMERCIAL SERVICE DATE: MARCH 1, 1977

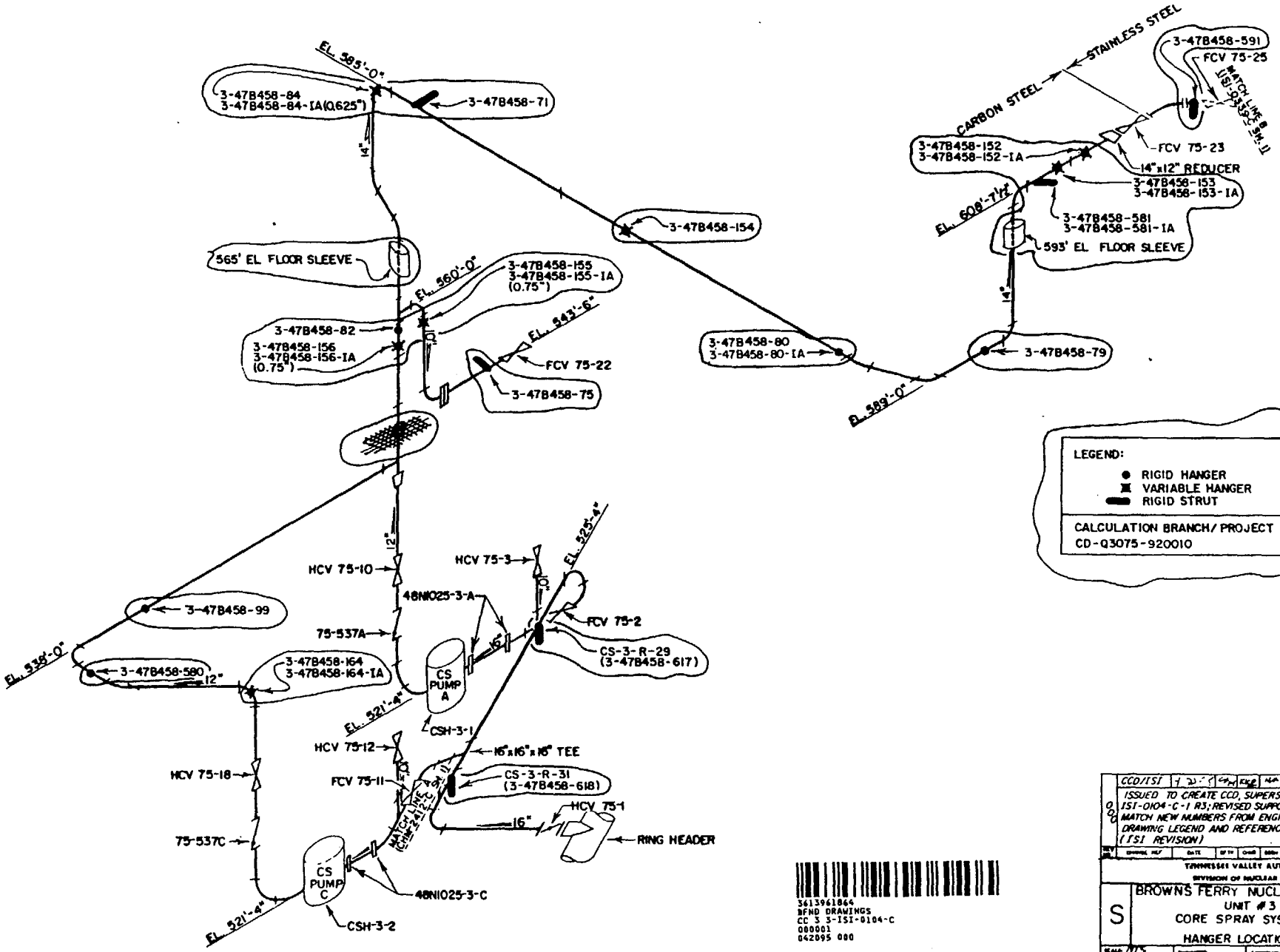
CERTIFICATION OF AUTHORIZATION: NOT REQUIRED
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED

System	Component Number	ISO Drawing	Exam Requirement	Category	Item Number	Exam Scheduled	Calibration Standard	Exam Date	Exam Report	Exam Results	Comments
CSS	DSCS-3-02	3-ISI-0331-C-01 01	B02-02	C	NU0313	UT	BF-79	20020329	R099	P	
CSS	DSCS-3-08	3-ISI-0331-C-01 01	B02-02	C	NU0313	UT	BF-79	20020329	R100	P	
CSS	TSCS-3-424	3-ISI-0331-C-01 01	B04-02	B-J	TS3432	UT	BF-75	20020328	R128	P	
FWS	GFW-3-09	3-ISI-0327-C-01 01	B04-02	B-J	TS3432	UT	BF-75	20020401	R147	P	
FWS	GFW-3-15	3-ISI-0327-C-01 01	B04-02	B-J	TS3432	UT	BF-75	20020402	R146	P	
FWS	KFW-3-38	3-ISI-0327-C-01 01	B04-02	B-J	TS3432	UT	BF-75	20020303	R148	P	
HPCIS	THPCI-3-070A	3-ISI-0333-C-01 01	B04-02	B-J	TS3432	UT	BF-42	20020401	R132	P	
MSS	GMS-3-06	3-ISI-0329-C-01 01	B04-02	B-J	TS3432	UT	BF-104	20020302	R145	P	
MSS	GMS-3-24	3-ISI-0329-C-02 02	B04-02	B-J	TS3432	UT	BF-104	20020402	R144	P	
RECIR	GR-3-63	3-ISI-0328-C-02 02	B02-02	E	NU0313	UT	BF-57	20020330	R103	P	Flaw discovered in C8 Monitored in C9 Full exam and sized C10
RECIR	KR-3-45	3-ISI-0328-C-01 01	B02-02	C	NU0313	UT	BF-57	20020328	R081	P	
RECIR	KR-3-50	3-ISI-0328-C-02 02	B02-02	C	NU0313	UT	BF-57	20020328	R082	P	
RHRS	DRHR-3-03	3-ISI-0330-C-01 01	B02-02	D	NU0313	UT	BF-57	20020325	R071	P	
RHRS	DRHR-3-03B	3-ISI-0330-C-01 01	B02-02	G	NU0313	VT-2					
RHRS	DRHR-3-12	3-ISI-0330-C-01 01	B02-02	D	NU0313	UT	BF-57	20020325	R070	P	50% Code Coverage
RHRS	DRHR-3-13B	3-ISI-0330-C-01 01	B02-02	G	NU0313	VT-2					
RHRS	DRHR-3-21	3-ISI-0330-C-01 01	B02-02	C	NU0313	UT	BF-87	20020331	R140	P	
RHRS	DSRHR-3-04	3-ISI-0330-C-01 01	B04-02	B-J	TS3432	UT	BF-57	20020331	R142	P	
RHRS	DSRHR-3-04	3-ISI-0330-C-01 01	B02-02	C	NU0313	UT	BF-57	20020331	R142	P	
RPV	N10-SE	ISI-0445-C-01 01	B06-02	SIL-571	N/A	UT	SQ-85	20020329	R101	P	INST NOZ SE- BASE METAL EXAM
RWCU	RWCU-3-001-G016	3-ISI-0332-C-01 01	B04-02	B-J	TS3432	UT	BF-118	20020328	R123	P	
RWCU	RWCU-3-001-G017	3-ISI-0332-C-01 01	B04-02	B-J	TS3432	UT	BF-118	20020328	R121	P	
RWCU	RWCU-3-001-G018	3-ISI-0332-C-01 01	B04-02	B-J	TS3432	UT	BF-118	20020329	R122	P	

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ISOMETRICS FOR COMPONENT LOCATIONS

REFERENCE DRF
47W335-15
47W458 SERIES
CLASS 2



R000

3613961864
BFND DRAWINGS
CC 3 3-ISI-0104-C
000001
042095 000

000	CCD/ISI							

ISSUED TO CREATE CCD, SUPERSEDES AS-DESIGNED ISI-0104-C-1 R3; REVISED SUPPORT NUMBERS TO MATCH NEW NUMBERS FROM ENGINEERING, ADDED DRAWING LEGEND AND REFERENCE CALCULATIONS (ISI REVISION)

REV NO. | REVISION REF | DATE | BY TH | CHKD | DRN | PLAN

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

S

BROWNS FERRY NUCLEAR
UNIT # 3
CORE SPRAY SYSTEM
HANGER LOCATIONS

3-ISI-0104-C

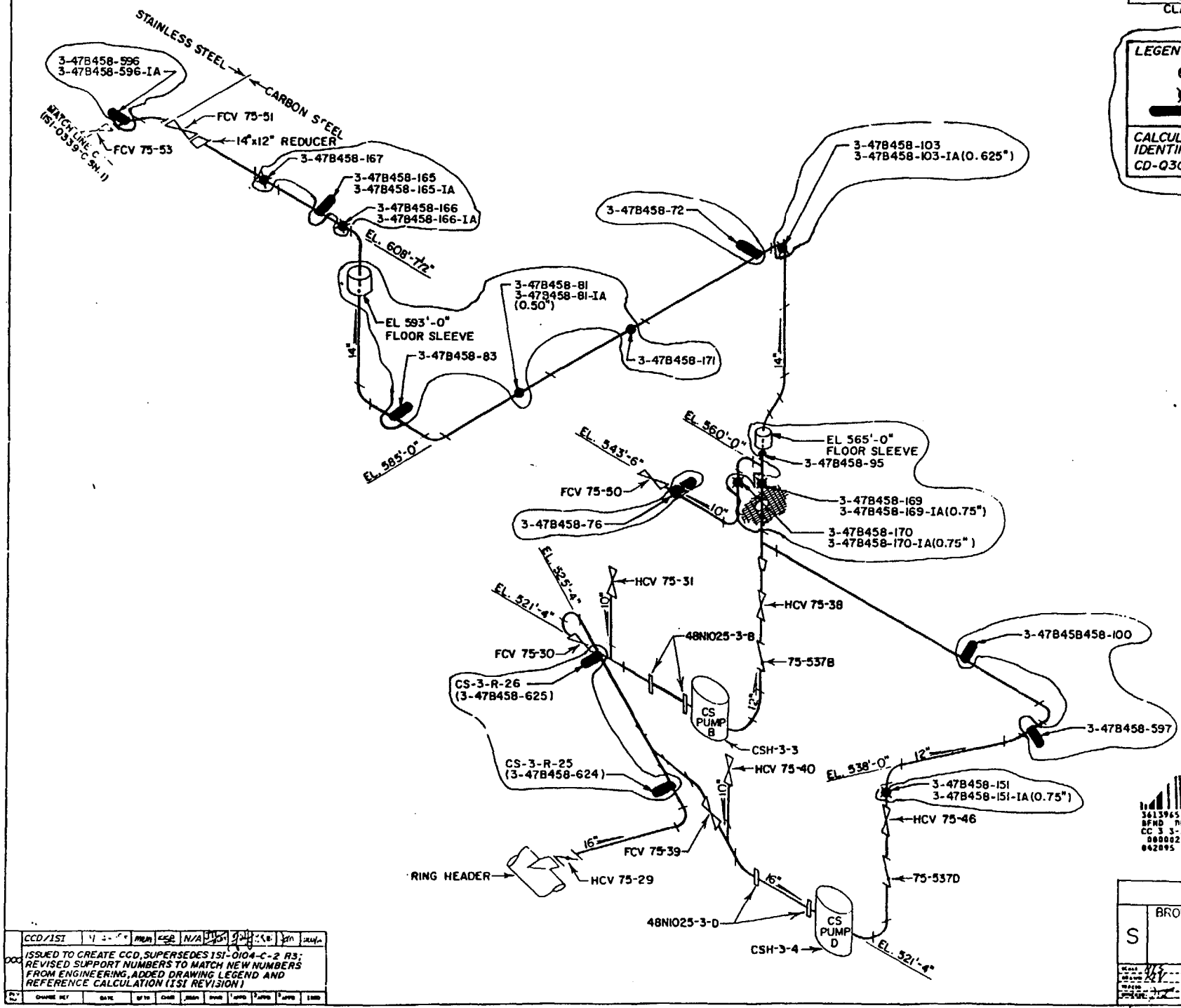
CCD

ALL A/D HISTORY RESEARCHED @ R000

REFERENCE DRA S
47W335-15
47W458 SERIES
CLASS 2

LEGEND
RIGID HANGER
VARIABLE HANGER
RIGID STRUT

CALCULATION BRANCH/PROJECT IDENTIFIER:
CD-Q3075-920009



3613965726
BFND DRAWINGS
CC 3 3-ISI-0104-C
000002
062095 000

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

S

BROWNS FERRY NUCLEAR PLANT
UNIT #3
CORE SPRAY SYSTEM
HANGER LOCATIONS

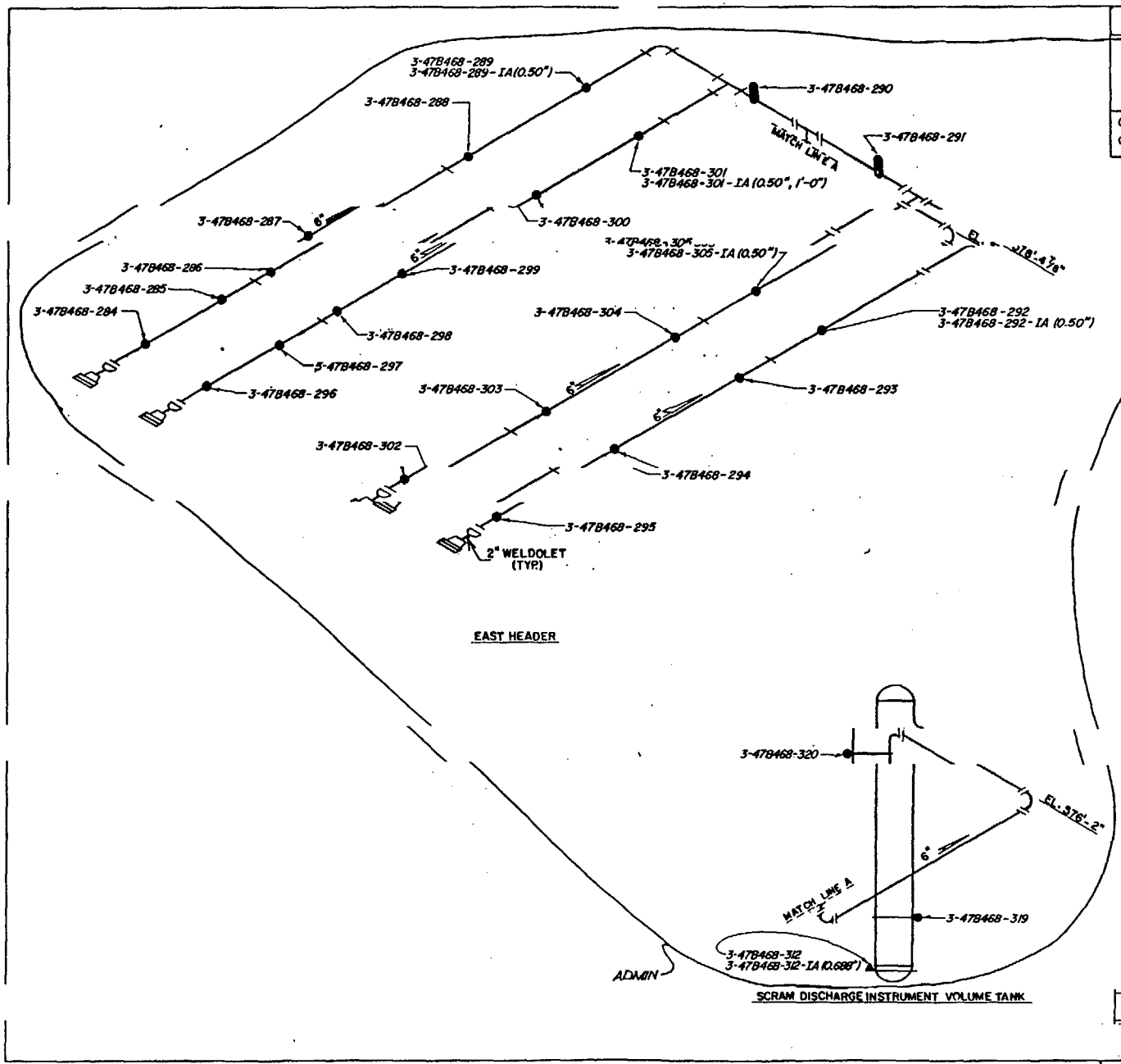
CCD/ISI | N/A

000 ISSUED TO CREATE CCD, SUPERSEDES ISI-0104-C-2 R3; REVISED SUPPORT NUMBERS TO MATCH NEW NUMBERS FROM ENGINEERING, ADDED DRAWING LEGEND AND REFERENCE CALCULATION (ISI REVISION)

REV NO.	CHANGE REF	DATE	BY TR	CHKD	DRAWN	PROJ	1 APPD	2 APPD	3 APPD	4 APPD	ISSD

ALL A/D HISTORY RESEARCHED @ R000

CC: R000



REFERENCE DRAWI.
47W3468 SERIES

LEGEND
- RIGID HANGER
- RIGID STRUT
- ANCHOR

CALCULATION BRANCH / PROJECT IDENTIFIER
CD - 03085 - 921162

5002875788
BEND DRAWINGS
CC 3 3-ISI-0144-C
000001
080895 000

000	COMPLETE	8-8-95			N/A					

ISSUED TO CREATE CCD, SUPERSEDES AS-DESIGNED ISI-0144-C-1 R1 AND T1 DEPICT AS-CONSTRUCTED STATUS PER A/D RO, RIMS MEMO R92 950717 879 (ADMINISTRATIVE REVISION)

REV NO.	CHANGE REF	DATE	BY/IN	CHKD	DRWN	PRNR	APPD	APPD	APPD	APPD

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

BROWNS FERRY NUCLEAR PLANT
UNIT #3
CONTROL ROD DRIVE
SCRAM DISCHARGE SYSTEM
HANGER LOCATIONS

S

3-ISI-0144-C

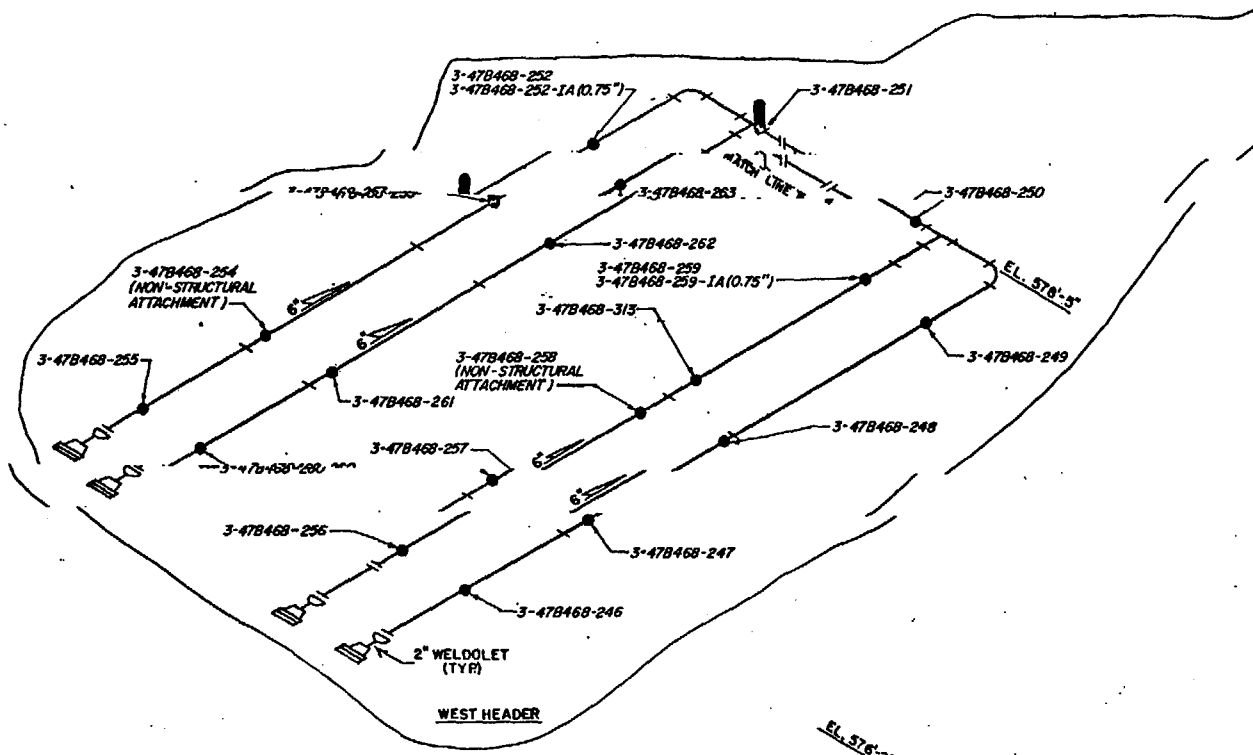
CCD R000

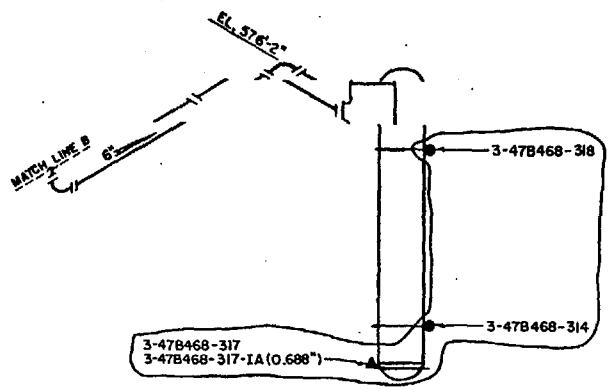
ALL A/D HISTORY RESEARCHED @ R000

REFERENCE DRAWINGS
47W3468 SERIES

LEGEND
- ● RIGID HANGER
- ▲ ANCHOR
- RIGID STRUT

CALCULATION PROJECT/ BRANCH IDENTIFIER
CD - 03085 - 921162





CCD/ADMIN	9-10-95									

ISSUED TO CREATE CCD, SUPERSEDES AS-DESIGNED ISI-0144-C-2 R1 AND TO DEPICT AS-CONSTRUCTED STATUS PER RIMS MEMO R92 950717 879 (ADMINISTRATIVE REVISION); AS-DESIGNED R0

REV	CHANGE REF	DATE	BY/TR	CHKD	DSGN	DRAW	VERD	APPD	APPD	SUBM

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

BROWNS FERRY NUCLEAR PLANT
UNIT # 3
CONTROL ROD DRIVE
SCRAM DISCHARGE SYSTEM
HANGER LOCATIONS

DRAWN	DATE 7-17-84		
CHECKED			
DESIGNED			
APPROVED			

3-ISI-0144-C

CCD

ALL A/D HISTORY RESEARCHED @ R000

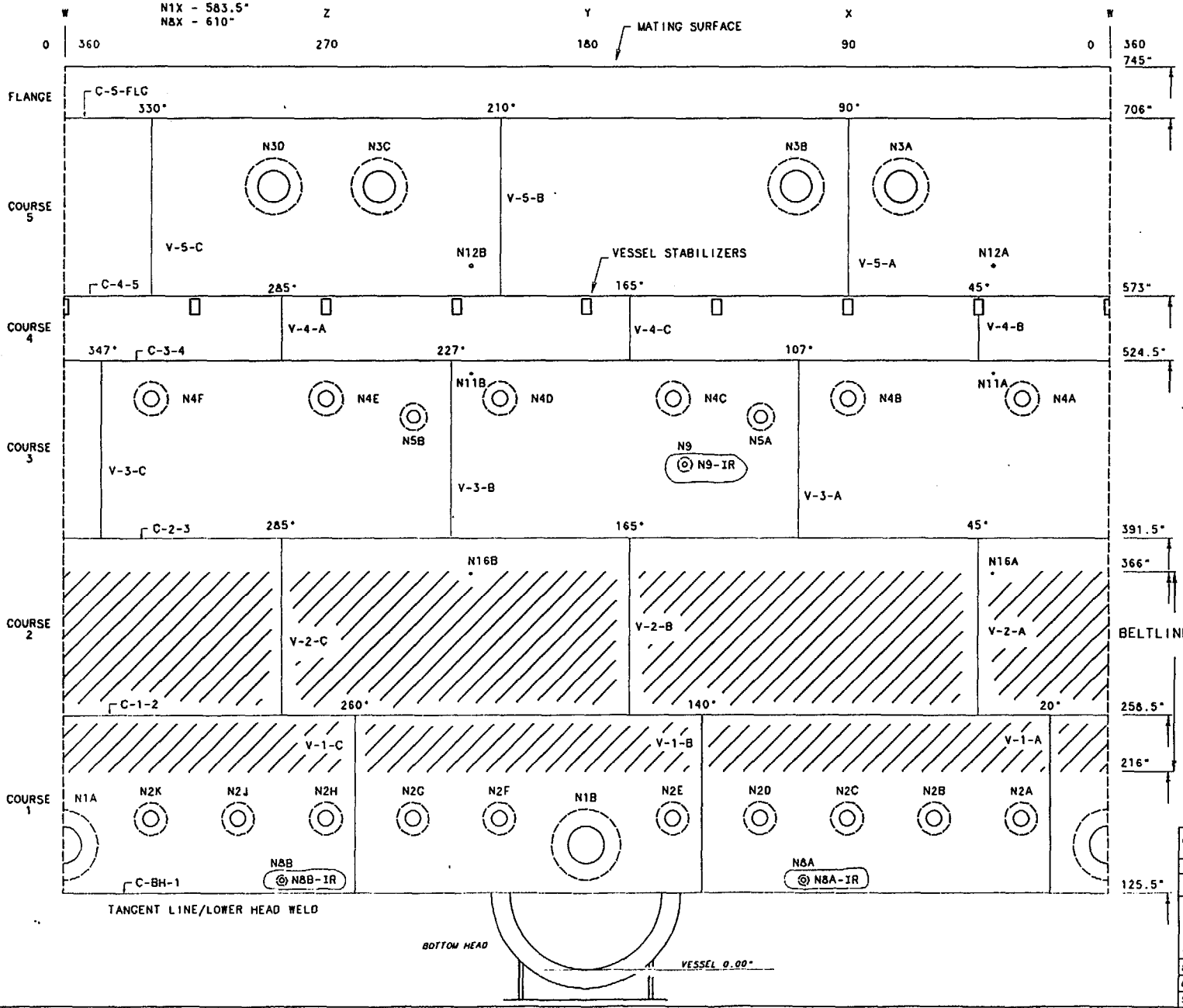
R000

NOZ.	ROUP	DISTANCE TO MATING SURFACE
N3X		86.5°
N12X		146°
N11X		228°
N4X		246.5°
N5X		259.5°
N9		296.5°
N16X		379°
N2X		564°
N1X		583.5°
N8X		610°

REFERENCE DRAW S (GE)
SKETCHES - RPV EXAMINA PLAN (GE)
SK-B3001 SK-B3005 -B3010
SK-B3003 SK-B3007
SK-B3004 SK-B3006

LEGEND
O VESSEL NOZZLE
◌ FULL PENETRATION NOZZLE WELD

ASME CC-1 (EQUIVALENT)



NOTES:
1. REFER TO RPV MANUAL FOR MATERIAL SPECIFICATIONS AND THICKNESS OF MATERIAL.
2. NOZZLES N-11A, N-11B, N-12A, N-12B, N-16A, AND N-16B ARE CATEGORY B-E.

001	ADMIN		BDL		N/A		N/A	N/A	
	REVISED PER RIMS MEMO R14 970505 302								
REV NO	CHANGE REF	DATE	LETR	DWN	DSGN	MGR	APPD	APPD	APPD
S	TENNESSEE VALLEY AUTHORITY								

BROWNS FERRY NUCLEAR PLANT
UNIT 3
REACTOR PRESSURE VESSEL (RPV)
SHELL COURSE WELD/NOZZLE LOCATIONS (OUTSIDE VIEW)

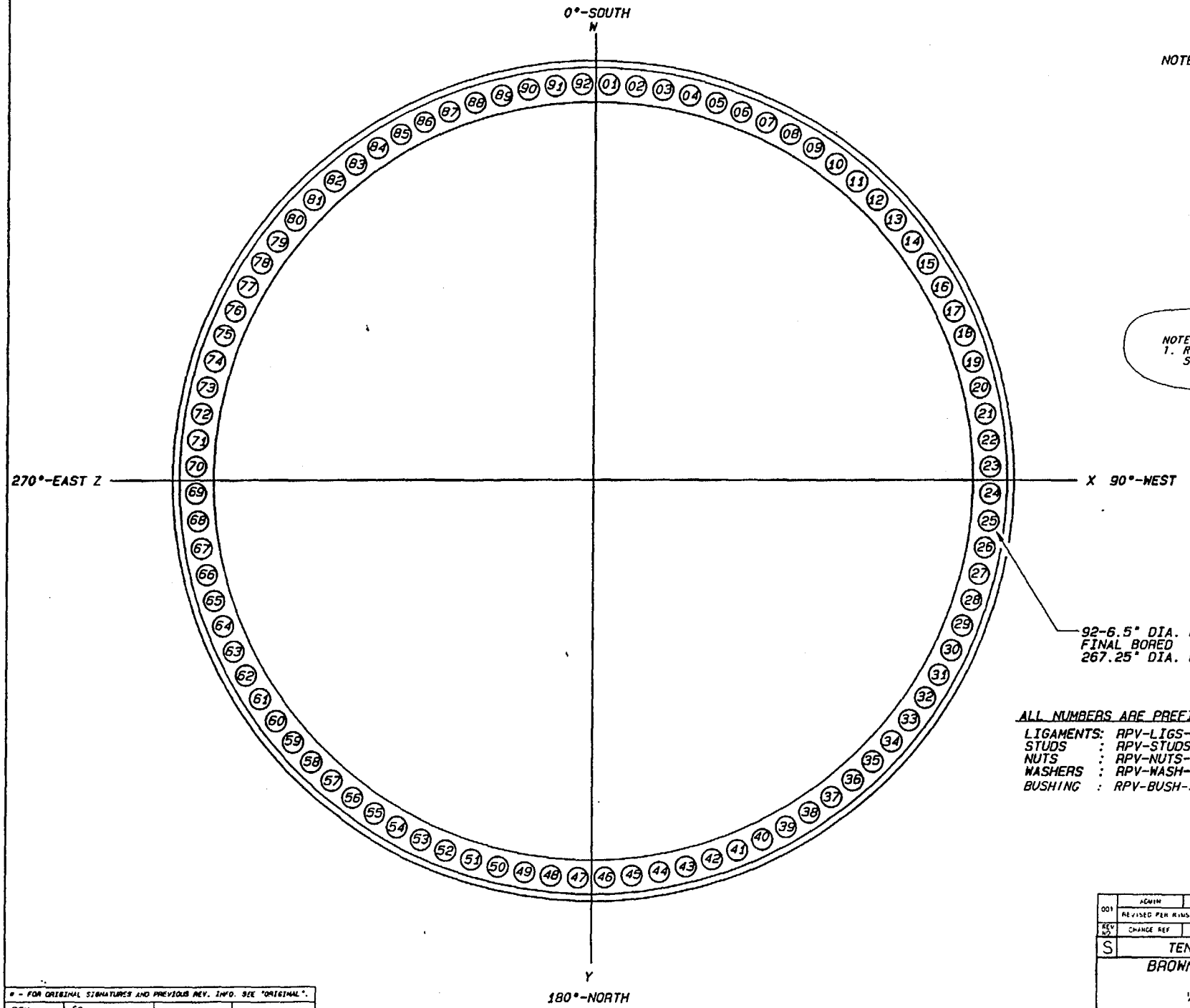
DRAWN: PHB	DATE: 7-11-89	SCALE NTS	CADAM/SYMBOL
CHECKED: EDC	APPROVED: GLB	SHEET 01 OF 02	REV
SUBMITTED: JES		3-1S1-0220-C	001
		CCD	

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

ASME ((EQUIVALENT)

NOTE: THIS DRAWING SUPERCEDES CHM-2001-C (UNIT 3)



NOTE:
1. REFER TO RPV MANUAL FOR MATERIAL SPECIFICATIONS AND BOLTING SIZES.

ALL NUMBERS ARE PREFIXED BY:

LIGAMENTS: RPV-LIGS-3-(01-92)
STUDS : RPV-STUDS-3-(01-92)
NUTS : RPV-NUTS-3-(01-92)
WASHERS : RPV-WASH-3-(01-92)
BUSHING : RPV-BUSH-3-(01-92)

001	ADMIN		RCL		N/A		N/A	N/A			
	REVISED PER RIMS MEMO R14 970303 302										
REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APP.	ISSUE	

S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
VESSEL STUD LOCATIONS

DRAWN: PHS	SUBMITTED	APPROVED	SCALE: NTS
DATE: 10-11-88	DATE: 5/5/89	DATE: 7/7/89	SHEET 1 OF 1 SHEET (S)
CHECKED: [illegible]	[illegible]	[illegible]	DRAWING NO. 3-1S1-0267-C
DATE: 5-3-89			REV. 001

CCD

# - FOR ORIGINAL SIGNATURES AND PREVIOUS REV. INFO. SEE "ORIGINAL".			
REV	00		
HARDWARE	TEKTRONIX 4123		
SOFTWARE	TEKNICAD 8.2		
FLOPPY OR TAPE #	FLOPPY #BF13		

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS:
B&W 122876
B&W 122877
NOTE: THIS DRAWING SUPERSEDES CHM-2102-A (UNIT 3 ONLY)

MATERIAL SPECIFICATIONS

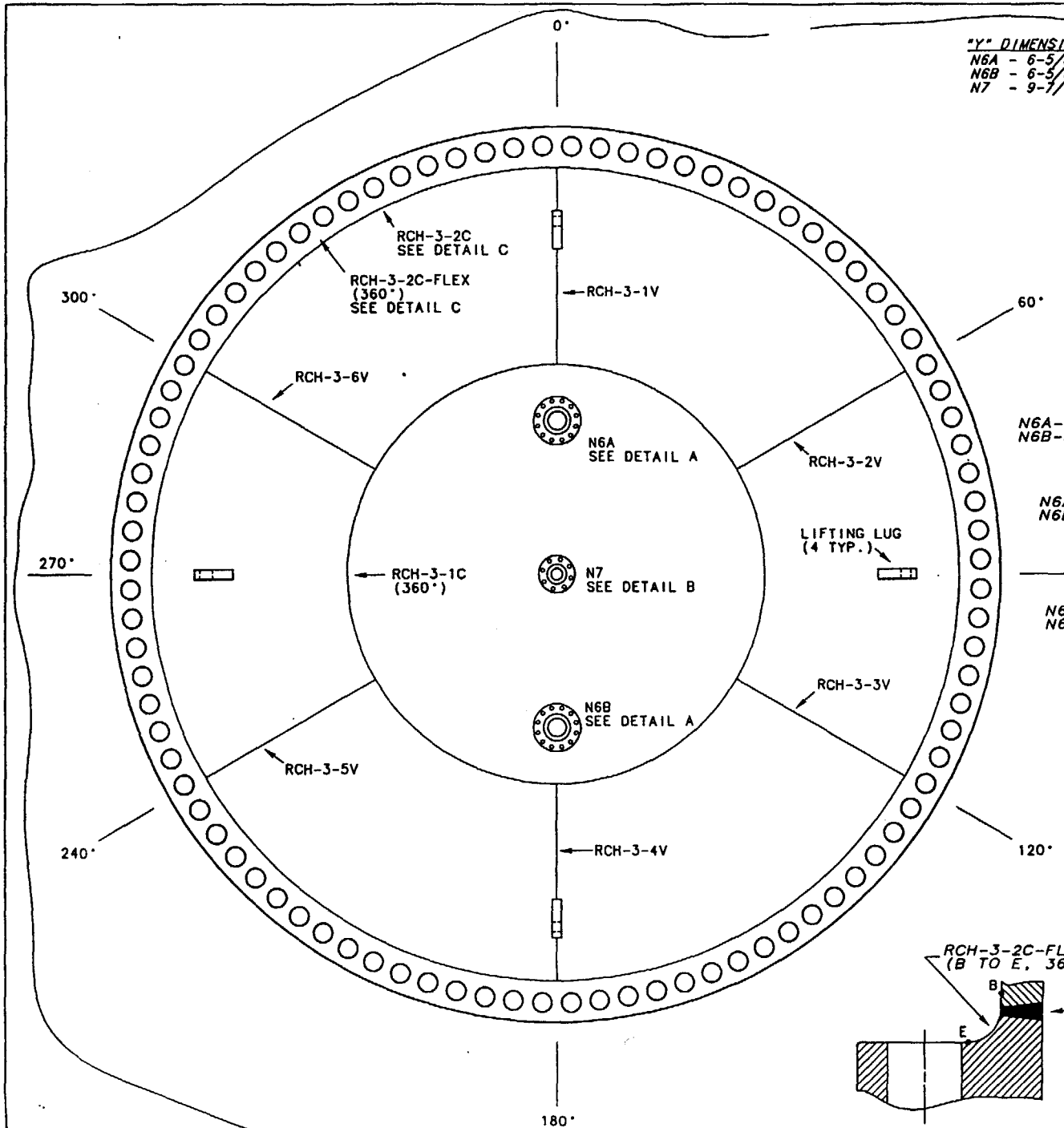
CLOSURE HEAD DOME/SEGMENTS
CS MN/MO

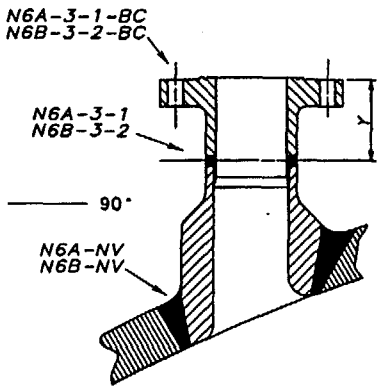
N-7
NOZZLE - A508 CL.2 (MN-MO)
LONG WELD NECK - SA-105 GR.II CS

N6A,N6B
NOZZLE - A508 CL.2 (MN-MO)
LONG WELD NECK - SA-105 GR.II CS

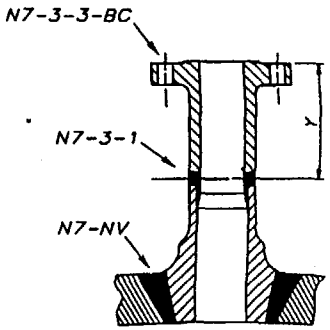
ASME CC-1 (EQUIVALENT)

"Y" DIMENSIONS
N6A - 6-5/8"
N6B - 6-5/8"
N7 - 9-7/16"

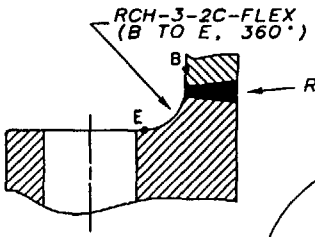




DETAIL A



DETAIL B



DETAIL C

5746380464
BFHD DRAWINGS
CC 3 3-ISI-0295-A
000001
042297 000

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APPD	4 APPD	ISSD
000	CCD ADMIN	4-22-97	MDL	JT	N/A	RLD	N/A	N/A	RLD		
	ISSUED TO CREATE CCD SUPERSEDES AS-DESIGNED ISI-0295-A-1 R1 AND TO DEPICT AS CONSTRUCTED STATUS PER RIMS MEMO R14 970324 3021 A/D RO										

S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
CLOSURE HEAD ASSEMBLY
WELD LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 12-28-88	DATE 5-13-89	DATE 5-1-89	SHEET 01 OF 01 SHEETS
CHECKED: JES	EDC	GLB	DRAWING NO. 3-ISI-0295-A REV. 000
DATE: 5-13-89			

CCD

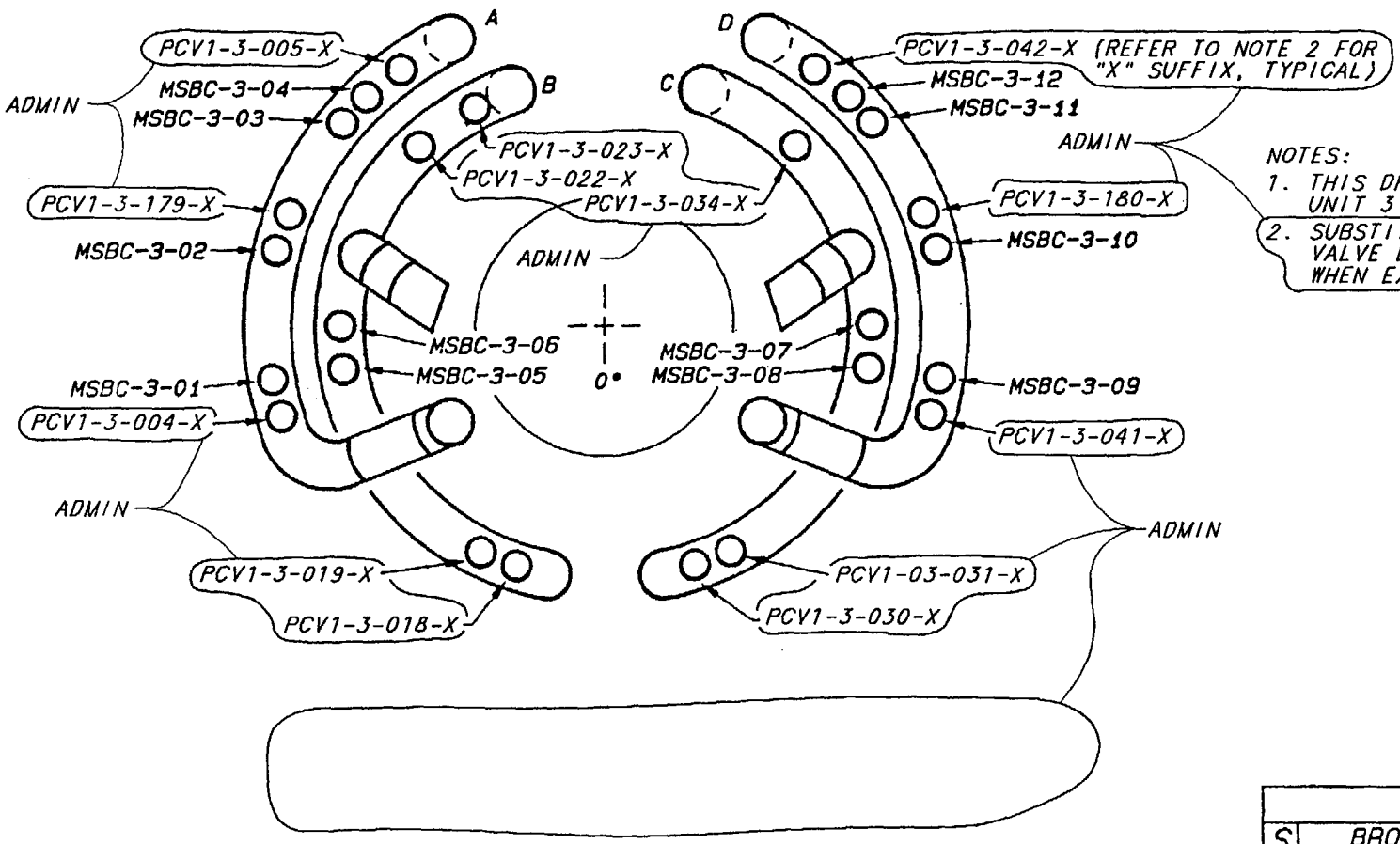
PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS:
3-47E801-1

ADMIN

ASME CC-1 (EQUIVALENT)



NOTES:
1. THIS DRAWING SUPERCEDES ISI-0022-A [illegible] UNIT 3 ONLY.
2. SUBSTITUTE "VBC" FOR "X" WHEN EXAM[illegible]NG VALVE BODY BOLTING AND "PBC" FOR "X" WHEN EXAMINING VALVE TO PIPE BOLTI[illegible]

HARDWARE	TEKTRONIX 4129
SOFTWARE	TEKNICAD 8.2
FLOPPY OR TAPE #	FLOPPY #BF4

PCADAM

REV NO.	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	ISSD
000	CCD ADMIN		MLP		N/A		N/A	N/A		
	ISSUED TO CREATE CCD. SUPERSEDES A/D ISI-0313-B-1 R1 AND TO DEPICT AS-CONSTRUCTED STATUS PER A/D R0; RIMS MEMO R92 960604 850 (ADMINISTRATIVE REVISION)									

ALL A/D HISTORY RESEARCHED AT R000

TENNESSEE VALLEY AUTHORITY

S BROWNS FERRY NUCLEAR PLANT
UNIT 3
MAINSTEAM SYSTEM
BOLTED CONNECTIONS

DRAWN: FHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 2-13-89	DATE: 5/17/89	DATE: 5/17/89	SHEET 1 OF 1 SHEET (S)
CHECKED: [illegible]			DRAWING NO.
DATE: 5-8-89	EDC	[illegible]	3-ISI-0313-B

REV. 000

CCD

NOTE:

1. PIPE SEGMENTS CONTAINING TWO LONGITUDINAL SEAMS WILL BE IDENTIFIED AS:

   (BASE WELD NO.)-LS-1D (DOWNSTREAM)
   (BASE WELD NO.)-LS-2D (DOWNSTREAM)
   (BASE WELD NO.)-LS-1U (UPSTREAM)
   (BASE WELD NO.)-LS-2U (UPSTREAM)

   THE -LS-1 SEAM WILL BE NUMERICALLY CLOSEST TO 0° ON THE PIPE AND THE -LS-2 SEAM WILL BE NUMERICALLY FARTHERMOST FROM 0° ON THE PIPE. (e.g. -LS-1 AT 130°. AND -LS-2 AT 310°)

2. PIPE SEGMENTS CONTAINING ONLY ONE LONGITUDINAL SEAM WILL BE IDENTIFIED AS:

   (BASE WELD NO.)-LS-D (DOWNSTREAM)
   (BASE WELD NO.)-LS-U (UPSTREAM)

3. FW NOZZLES (INNER RADIUS)
   N-4A-IR
   N-4B-IR
   N-4C-IR
   N-4D-IR
   N-4E-IR
   N-4F-IR

REFERENCE DRAWINGS

47K1545-1
47W335-2
GE 729E152
2-1S1-0277-C (SH. 1) SUPPORT MAP
THIS DRAWING SUPERCEDES CHM-2138-C ALL SHEETS.

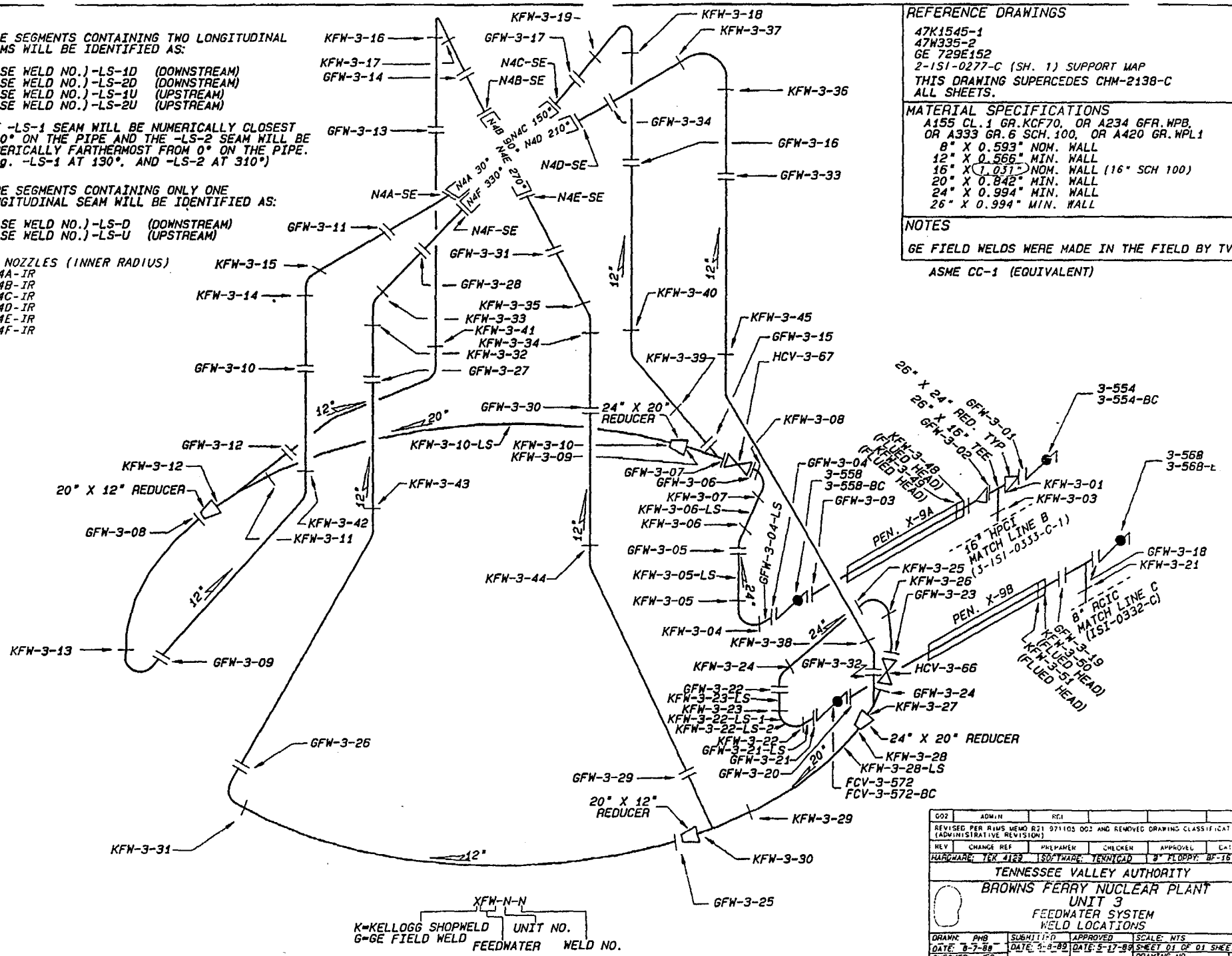
MATERIAL SPECIFICATIONS

A155 CL.1 GR.KCF70, OR A234 GFR.WPB, OR A333 GR.6 SCH.100, OR A420 GR.WPL1
8" X 0.593" NOM. WALL
12" X 0.566" MIN. WALL
16" X 1.031" NOM. WALL (16" SCH 100)
20" X 0.842" MIN. WALL
24" X 0.994" MIN. WALL
26" X 0.994" MIN. WALL

NOTES

GE FIELD WELDS WERE MADE IN THE FIELD BY TVA

ASME CC-1 (EQUIVALENT)



002	ADMIN	RGI			
REVISED PER RIMS MEMO R31 971105 002 AND REMOVED DRAWING CLASSIFICATION (ADMINISTRATIVE REVISION)					
REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
HARDWARE: TEK 4129		SOFTWARE: TENNICAD		3" FLOPPY: BF-16	

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
FEEDWATER SYSTEM
WELD LOCATIONS

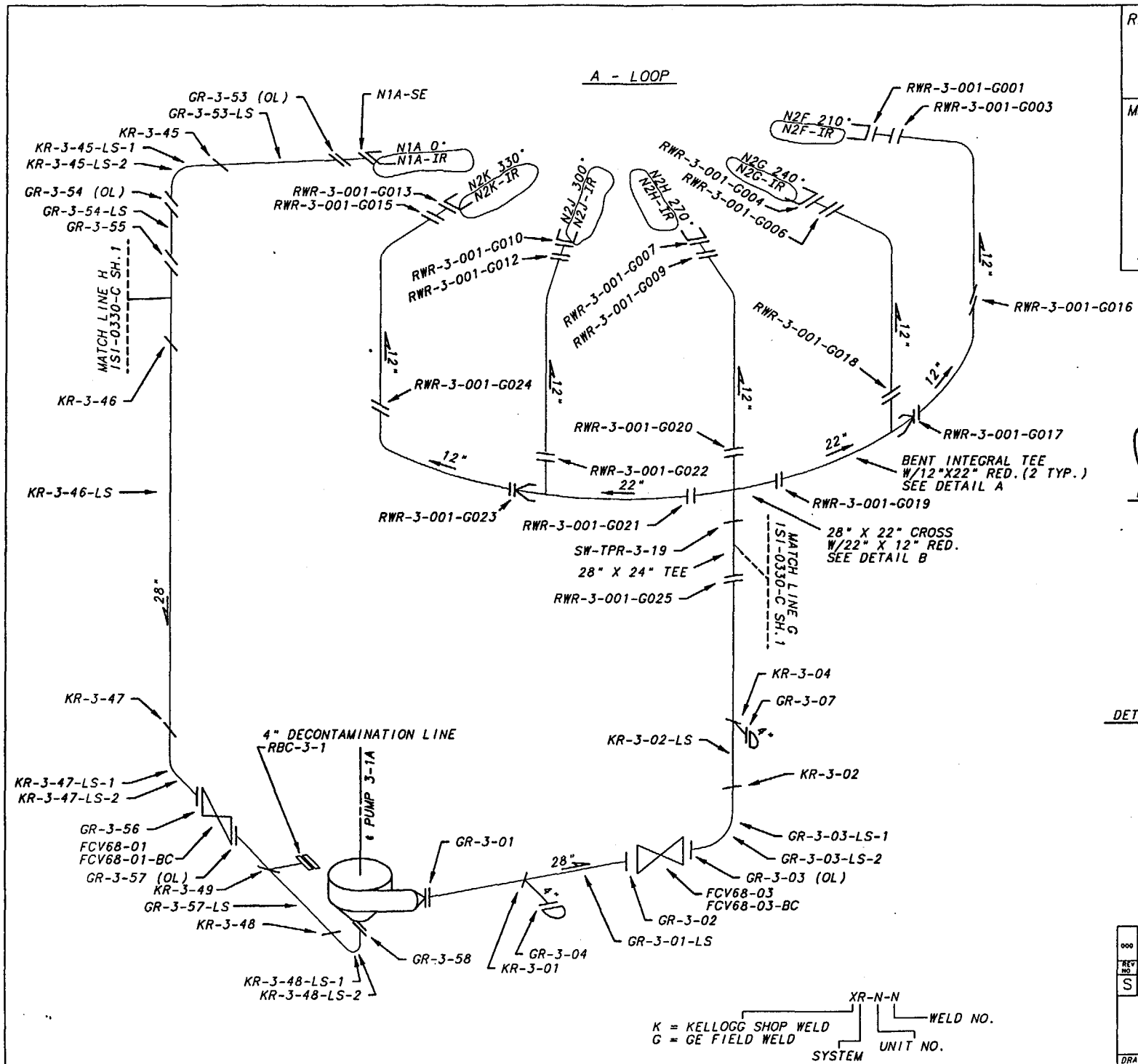
DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 8-7-88	DATE: 5-8-89	DATE: 5-17-89	SHEET 01 OF 01 SHEET (S)
CHECKED: JES	EOC	GLB	DRAWING NO. 3-1S1-0327-C
DATE: 5-8-89			REV.

CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

MF R2

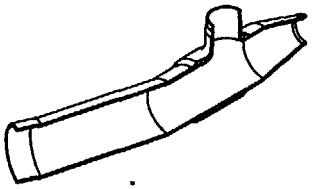


REFERENCE DRAWINGS:
TVA 47K1544-3
GE 153F754
KELLOGG BF 2-180
NOTE: THIS DRAWING SUPERSEDES CHM-2139-C ALL SHEETS

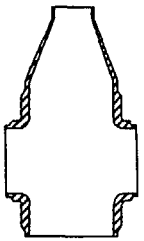
MATERIAL SPECIFICATIONS:
A378, TP 304
4" X 0.337" NOM WALL THK. (SS)
28" X 1.138" NOM. WALL THK. (SS) SUCTION
28" X 1.322" NOM. WALL THK. (SS) DISCHARGE

SA403 WP316NG
12" X 0.602" MIN. WALL
22" INTEGRAL RED. TEE 0.980" MIN. WALL
28" X 22" CROSS 0.980" MIN. WALL
28" X 24" INTEGRAL TEE X 1.272" MIN. WALL

ASME CC-1 (EQUIVALENT)



DETAIL A - ONE PEICE SPECIAL FORGING



DETAIL B - ONE PEICE SPECIAL FORGIN

REV NO	CHANGE REF	DATE	OFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APPD	ISSUE
000	CCD ADMIN		RDL		N/A		N/A	N/A		
	ISSUED TO CREATE CCD SUPERSEDES AS-DESIGNED 151-0328-C-1 R3 AND TO DEPICT AS CONSTRUCTED STATUS PER RIMS MEMO R14 970503 303; A/D R0-R2									

S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RECIRCULATION SYSTEM
WELD LOCATIONS

DRAWN: PHB DATE: 4-4-89	SUBMITTED DATE: 5-18-89	APPROVED DATE: 5-19-89	SCALE NTS SHEET 1 OF 2 SHEETS
CHECKED: JES DATE: 5-8-89	EDC	GLB	DRAWING NO. 3-151-0328-C REV. 000
			CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS:

TVA 47K1544-3
GE 153F754
KELLOGG BF 2-180
NOTE: THIS DRAWING SUPERSEDES CHM-2139-C ALL SHEETS

MATERIAL SPECIFICATIONS:

A378, TP 304
4" X 0.337" NOM WALL THK. (SS)
28" X 1.138" NOM. WALL THK. (SS) SUCTION
28" X 1.322" NOM. WALL THK. (SS) DISCHARGE

SA403 WP316NG

12" X 0.602" MIN. WALL
22" INTEGRAL RED. TEE 0.980" MIN. WALL
28" X 22" CROSS 0.980" MIN. WALL
28" X 24" INEGRAL TEE X 1.272" MIN. WALL

ASME CC-1 (EQUIVALENT)

B - LOOP

GR-3-59 (OL)
GR-3-59-LS
N1B-SE
KR-3-50
KR-3-50-LS-1
KR-3-50-LS-2
N1B 180°
N1B-IR
GR-3-60 (OL)
GR-3-60-LS
GR-3-61
RWR-3-002-G013
RWR-3-002-G015
N2E 150°
N2E-IR
N2D 120°
N2D-IR
N2C 90°
N2C-IR
RWR-3-002-G010
RWR-3-002-G012
RWR-3-002-G007
RWR-3-002-G009
N2B 60°
N2B-IR
RWR-3-002-G004
RWR-3-002-G006
N2A 30°
N2A-IR
RWR-3-002-G001
RWR-3-002-G003
RWR-3-002-G016
RWR-3-002-G024
RWR-3-002-G022
RWR-3-002-G020
RWR-3-002-G018
RWR-3-002-G017
BENT INTEGRAL TEE W/12"X22" RED. (2 TYP.) SEE DETAIL A
GR-3-61-LS
RWR-3-002-G023
RWR-3-002-G021
RWR-3-002-G019
28" X 22" CROSS W/22" X 12" RED. SEE DETAIL B
SW-TPR-3-21
MATCH LINE B ISI-0330-C SH. 1
RWR-3-002-G025
KR-3-26
GR-3-33
KR-3-51
KR-3-24-LS
KR-3-24
KR-3-51-LS-1
KR-3-51-LS-2
GR-3-62
FCV68-77
FCV68-77-BC
GR-3-63A
GR-3-63B
PUMP 3-1B
GR-3-27 (OL)
GR-3-29-LS-1
GR-3-29-LS-2
GR-3-29
FCV68-79
FCV68-79-BC
GR-3-63
GR-3-63-LS
KR-3-53
GR-3-28
GR-3-27-LS
4" DECONTAMINATION LINE
RBC-3-2
KR-3-52
KR-3-52-LS-1
KR-3-52-LS-2
GR-3-64 (OL)
GR-3-30
KR-3-23

12"
28"
22"
4"

DETAIL A - ONE PEICE SPECIAL FORGING

DETAIL B - ONE PEICE SPECIAL FORGING

XR-N-N
WELD NO.
UNIT NO.
SYSTEM
K = KELLOGG SHOP WELD
G = GE FIELD WELD

REV NO.	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APPD	ISSD
000	CCD ADMIN		RDL		N/A		N/A	N/A		
	ISSUED TO CREATE CCD SUPERSEDES AS-DESIGNED ISI-0328-C-2 R4 AND TO DEPICT AS CONSTRUCTED STATUS PER RIMS MEMO R14 870505 305: A/D R0-R3									

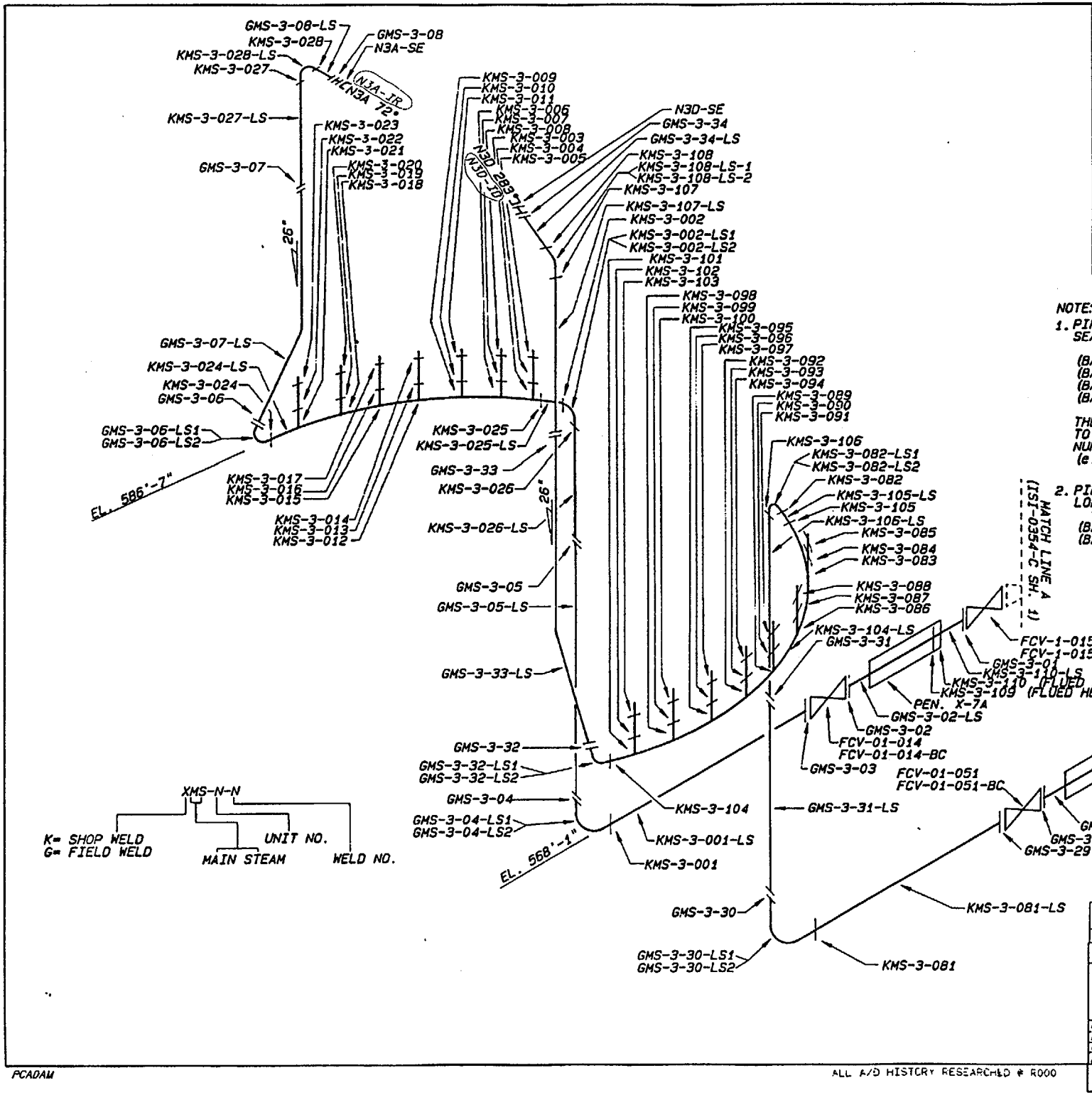
S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RECIRCULATION SYSTEM
WELD LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 4-4-89	DATE: 5-8-89	DATE: 5-17-89	SHEET 2 OF 2 SHEETS
CHECKED: JES	EDC	GLB	DRAWING NO. 3-ISI-0328-C REV. 000
DATE: 5-8-89			CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000



REFERENCE DRAWINGS:

47K1767
47W335-1
KELLOGG 729E229

NOTE: THIS DRAWING SUPERCEDES CHM-2140-C (SH. 1)

MATERIAL SPECIFICATIONS

A-155 GR.KC70 CL.1, OR A-516 0.950" MIN. WALL, OR A-106 GR.B SCH.80, OR A-234 GR.B (SCH.80 OR 0.950" MIN. WALL), OR A-105 GR.II (SCH. OR MIN. WALL TO SUIT PIPE). OR A-106 GR.B SCH. 160

6" X 0.719" NOM. WALL (SCH. 160)
26" X 0.950" MIN. WALL

NOTE:

ALL FIELD WELDS WERE MADE BY TVA

ASME CC-1 (EQUIVALENT)

NOTE:

1. PIPE SEGMENTS CONTAINING TWO LONGITUDINAL SEAMS WILL BE IDENTIFIED AS:

(BASE WELD NO.)-LS-1D (DOWNSTREAM)
(BASE WELD NO.)-LS-2D (DOWNSTREAM)
(BASE WELD NO.)-LS-1U (UPSTREAM)
(BASE WELD NO.)-LS-2U (UPSTREAM)

THE -LS-1 SEAM WILL BE NUMERICALLY CLOSEST TO 0° ON THE PIPE AND THE -LS-2 SEAM WILL BE NUMERICALLY FARTHERMOST FROM 0° ON THE PIPE. (e.g. -LS-1 AT 130°, AND -LS-2 AT 310°)

2. PIPE SEGMENTS CONTAINING ONLY ONE LONGITUDINAL SEAM WILL BE IDENTIFIED AS:

(BASE WELD NO.)-LS-D (DOWNSTREAM)
(BASE WELD NO.)-LS-U (UPSTREAM)

R3

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	CSTL
001	ADMIN		RDL		N/A		N/A			
	REVISED PER RIMS WKO R14 870505 304									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
MAIN STEAM SYSTEM WELD LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 8-9-88	DATE: 5-8-89	DATE: 5-17-89	SHEET 1 OF 2 SHEETS
CHECKED: JES	EDC	GLB	DRAWING NO. 3-IST-0329-C REV 001
DATE: 5-8-89			

CCD

PCADAM

ALL A/D HISTORY RESEARCHED # R000

REFERENCE DRAWINGS:
47K1767
47W335-1
KELLOG 729E229

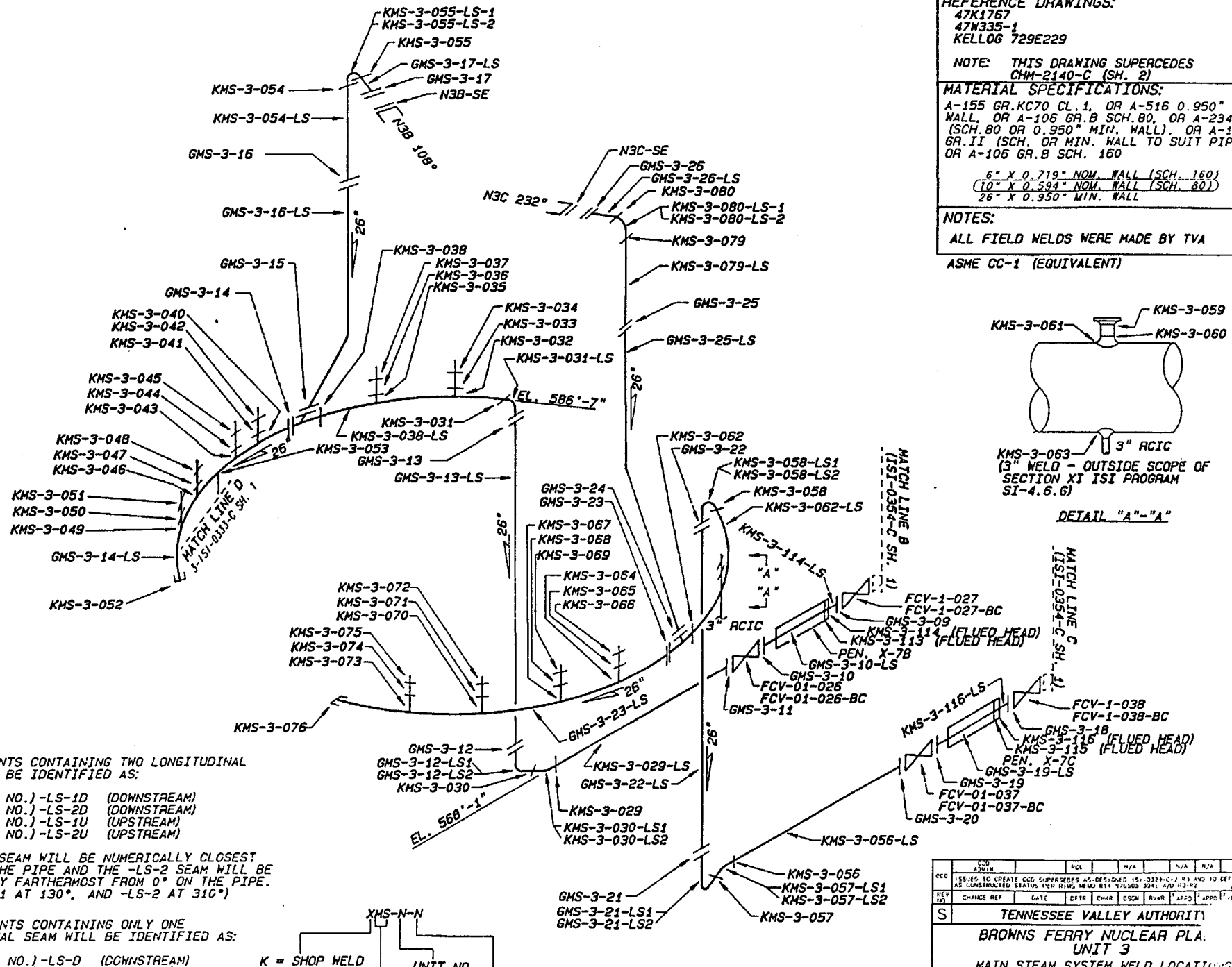
NOTE: THIS DRAWING SUPERCEDES CHM-2140-C (SH. 2)

MATERIAL SPECIFICATIONS:
A-155 GR.KC70 CL.1, OR A-516 0.950" MIN. WALL, OR A-106 GR.B SCH.80, OR A-234 GR.B (SCH.80 OR 0.950" MIN. WALL), OR A-105 GR.II (SCH. OR MIN. WALL TO SUIT PIPE), OR A-106 GR.B SCH. 160

6" X 0.719" NOM. WALL (SCH. 160)
10" X 0.594" NOM. WALL (SCH. 80)
26" X 0.950" MIN. WALL

NOTES:
ALL FIELD WELDS WERE MADE BY TVA

ASME CC-1 (EQUIVALENT)



NOTE:
1. PIPE SEGMENTS CONTAINING TWO LONGITUDINAL SEAMS WILL BE IDENTIFIED AS:

(BASE WELD NO.)-LS-1D (DOWNSTREAM)
(BASE WELD NO.)-LS-2D (DOWNSTREAM)
(BASE WELD NO.)-LS-1U (UPSTREAM)
(BASE WELD NO.)-LS-2U (UPSTREAM)

THE -LS-1 SEAM WILL BE NUMERICALLY CLOSEST TO 0° ON THE PIPE AND THE -LS-2 SEAM WILL BE NUMERICALLY FARTHERMOST FROM 0° ON THE PIPE. (e.g. -LS-1 AT 130°, AND -LS-2 AT 310°)

2. PIPE SEGMENTS CONTAINING ONLY ONE LONGITUDINAL SEAM WILL BE IDENTIFIED AS:

(BASE WELD NO.)-LS-D (DOWNSTREAM)
(BASE WELD NO.)-LS-U (UPSTREAM)

3. MS-NOZZLES (INNER RADIUS) N-3B-IR AND N-3C-IR

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	APPD
S	TENNESSEE VALLEY AUTHORITY									

BROWNS FERRY NUCLEAR PLA.
UNIT 3
MAIN STEAM SYSTEM WELD LOCATIONS

DRAWN: PMB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 6-13-89	DATE: 6-14-89	DATE: 6-14-89	SHEET 2 OF 2 SHEETS
CHECKED: JES	EDC	GLB	DRAWING NO. 3-1SI-0329-C
DATE: 6-13-89			REV 000

CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

NOTE:

1. PIPE SEGMENTS CONTAINING TWO LONGITUDINAL SEAMS WILL BE IDENTIFIED AS:

   (BASE WELD NO.)-LS-1D (DOWNSTREAM)
   (BASE WELD NO.)-LS-2D (DOWNSTREAM)
   (BASE WELD NO.)-LS-1V (UPSTREAM)
   (BASE WELD NO.)-LS-2V (UPSTREAM)

   THE -LS-1 SEAM WILL BE NUMERICALLY CLOSEST TO 0° ON THE PIPE, AND THE -LS-2 SEAM WILL BE NUMERICALLY FARTHERMOST FROM 0° ON THE PIPE. (e.g. -LS-1 AT 130°, AND -LS-2 AT 310°)

2. PIPE SEGMENTS CONTAINING ONLY ONE LONGITUDINAL SEAM WILL BE IDENTIFIED AS

   (BASE WELD NO.)-LS-D (DOWNSTREAM)
   (BASE WELD NO.)-LS-V (UPSTREAM)

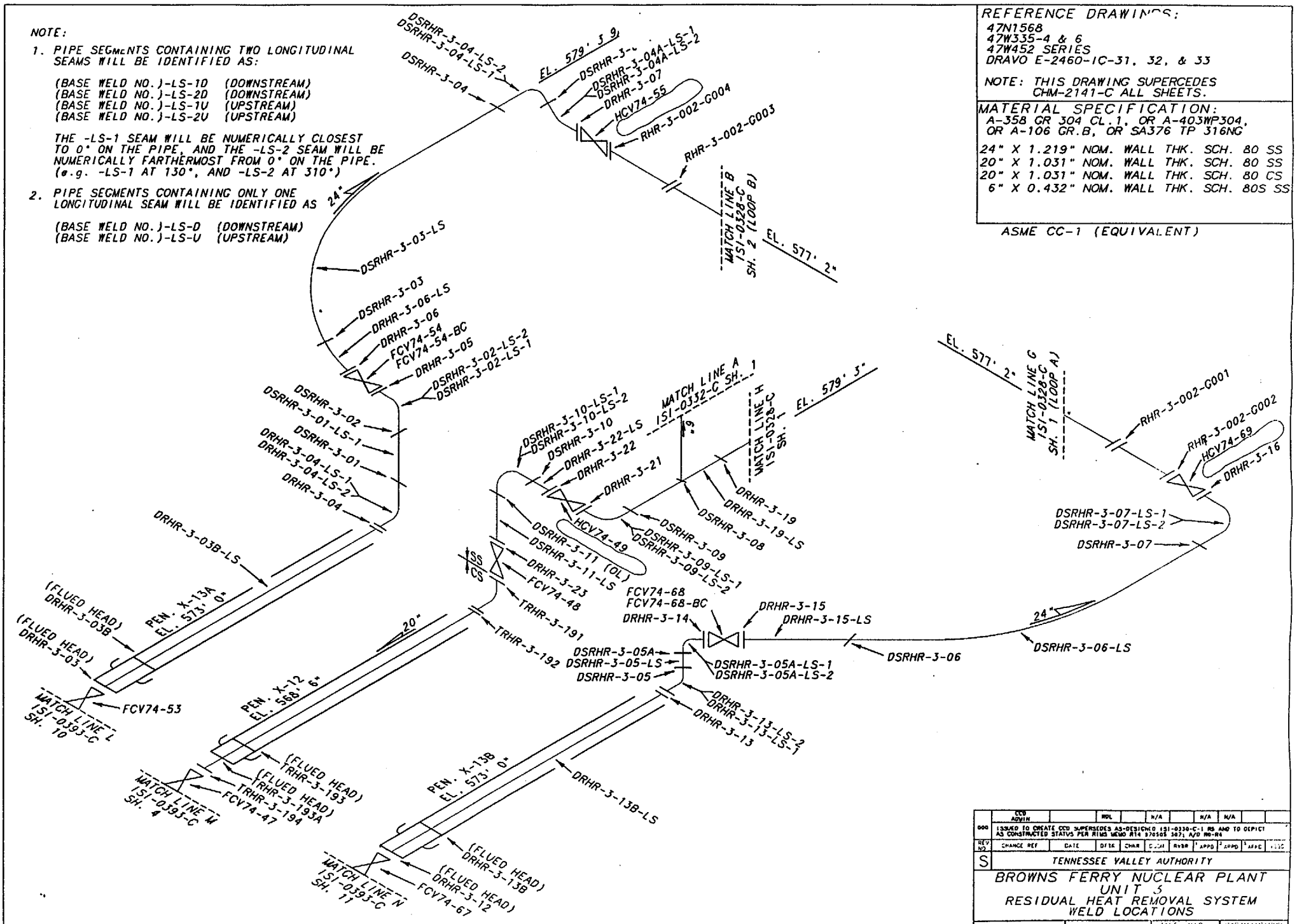
REFERENCE DRAWINGS:
47N1568
47W335-4 & 6
47W452 SERIES
DRAVO E-2460-IC-31, 32, & 33

NOTE: THIS DRAWING SUPERCEDES CHM-2141-C ALL SHEETS.

MATERIAL SPECIFICATION:
A-358 GR 304 CL.1, OR A-403WP304, OR A-106 GR.B, OR SA376 TP 316NG

24" X 1.219" NOM. WALL THK. SCH. 80 SS
20" X 1.031" NOM. WALL THK. SCH. 80 SS
20" X 1.031" NOM. WALL THK. SCH. 80 CS
6" X 0.432" NOM. WALL THK. SCH. 80S SS

ASME CC-1 (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	ISSUE
000	CCD ADMIN		MDL		N/A		N/A	N/A		
	ISSUED TO CREATE CCD SUPERSEDES AS-DESIGNED 1S1-0330-C-1 RS AND TO DEPICT AS CONSTRUCTED STATUS PER RIMS MEMO R14 970505 307; A/D R0-R4									

S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
WELD LOCATIONS

DRAWN: PHB	DATE: 5-17-89	SCALE: NTS	CADAM/1S1-0330
CHECKED: JES	APPROVED: CLB	SHEET 01 OF 01	REV
SUBMITTED: EDC		3-1S1-03	C 000
		CC.	

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS
TVA 47K1772
TVA 47W335-15
DRAVO 3-E-2460-1C-34-1
DRAVO 3-E-2460-1C-35-1

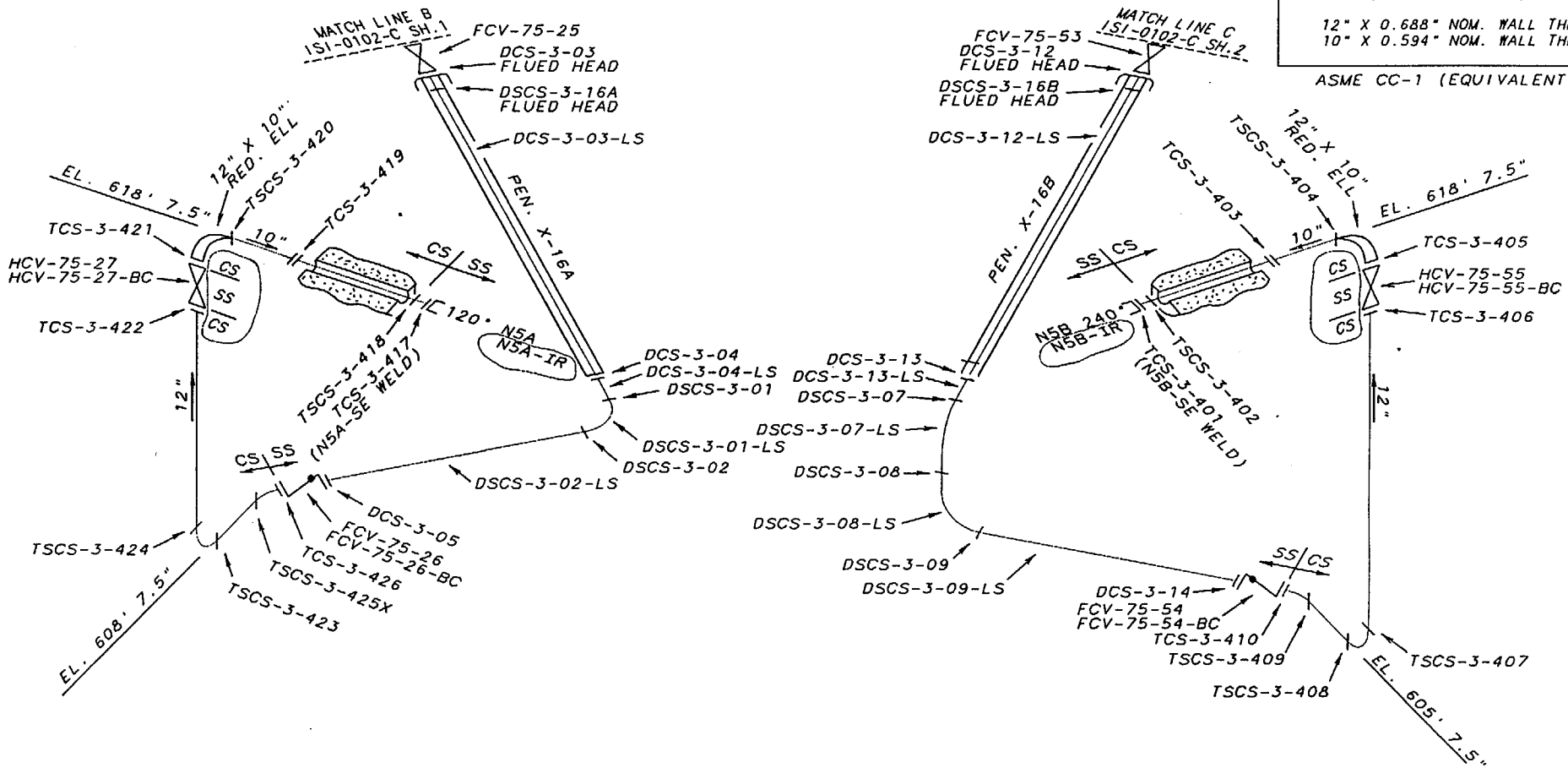
NOTE: THIS DRAWING SUPERSEDES CHM-2142-C ALL SHEETS

MATERIAL SPECIFICATIONS

A-333, GR.6 OR SA-420, GR.WPL6 OR SA333, GR.6 OR A-358, GR.304

12" X 0.688" NOM. WALL THK.
10" X 0.594" NOM. WALL THK.

ASME CC-1 (EQUIVALENT)



DXCS - N - N

CORE SPRAY

D=DRAVO FIELD WELD
DS=DRAVO SHOP WELD
T=TVA FIELD WELD
TS=TVA SHOP WELD

WELD NO.

UNIT NO.

NOTE:

1. PIPE SEGMENTS CONTAINING ONLY ONE LONGITUDINAL SEAM WILL BE IDENTIFIED AS

(BASE WELD NO.)-LS-D (DOWNSTREAM)
(BASE WELD NO.)-LS-U (UPSTREAM)

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	ISSUE
000	CCD ADMIN.		KDL		N/A		N/A	N/A		
	ISSUED TO CREATE CCD. SUPERSEDES AS-DESIGNED ISI-0331 C-1 R4 AND TO DEPICT AS CONSTRUCTED STATUS PER NEMO MEMO RIM 970505 305; A/D HISTORY									
S	TENNESSEE VALLEY AUTHORITY									

BROWNS FERRY NUCLEAR PLANT
UNIT 3
CORE SPRAY SYSTEM
WELD LOCATIONS

DRAWN: PHD	DATE: 5-17-89	SCALE: NTS	DRAWING NO.
CHECKED: JES	APPROVED: GLB	SHEET 01 OF 01	REV.
SUBMITTED: EDC		3-ISI-0331-C	000

CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS

TVA 47W335-11
TVA 47W335-12
TVA 47K1547
3-ISI-0335-C (SH. 1) SUPPORT MAP

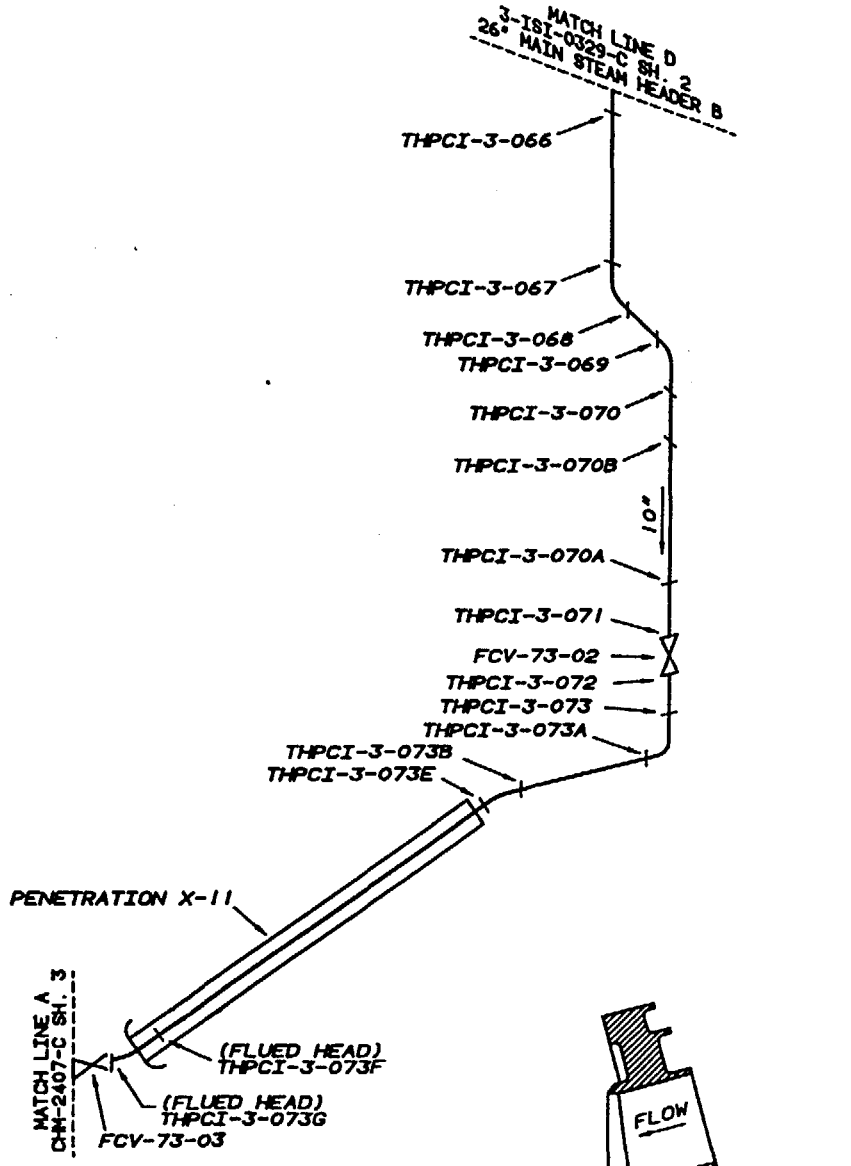
NOTE: THIS DRAWING SUPERSEDES CHM-2145-C ALL SHEETS

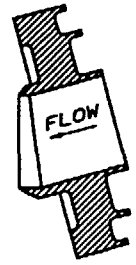
MATERIAL SPECIFICATIONS

(S) - DESIGNATES SHOP WELD

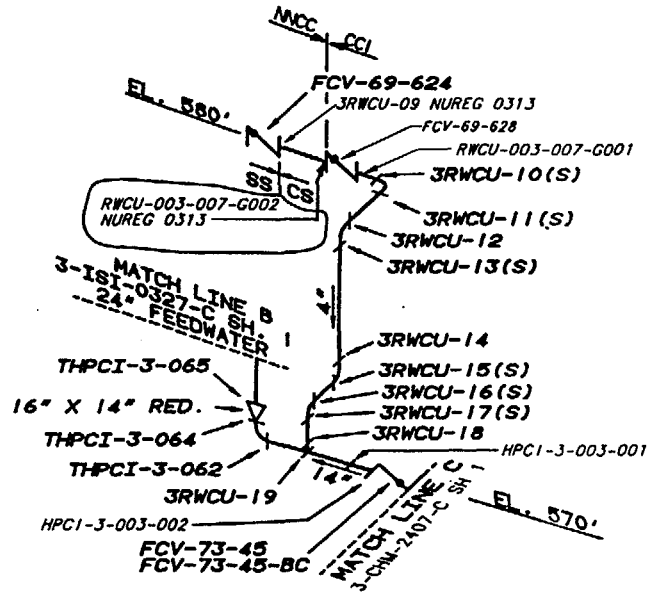
16" X 1.031" NOM. WALL THK. CS
14" X 0.938" NOM. WALL THK. CS
10" X 0.593" NOM. WALL THK. CS
4" X 0.375" NOM. WALL THK. CS

ASME CC-1 (EQUIVALENT)





SECTION THRU FLUED HEAD



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
003	ADMIN	RDL	WCH	RLO	5-17-00

REVISED PER RIMS MEMO R21 000509 001

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
HPCI AND RWCU SYSTEMS
WELD LOCATIONS

DRAWN: PHB	DATE: 8-19-89	SCALE: NTS	CADAM/ISIOHP
CHECKED: JES	APPROVED: GLB	SHEET 01 OF 01	REV
SUBMITTED: EDC		3-ISI-0333-C	003

CAD MAINTAINED DRAWING

CCD

ALL A/D HISTORY RESEARCHED @ R000

REFERENCE DRAW. S

RWCU-3-001 (TVA h__D MAP)

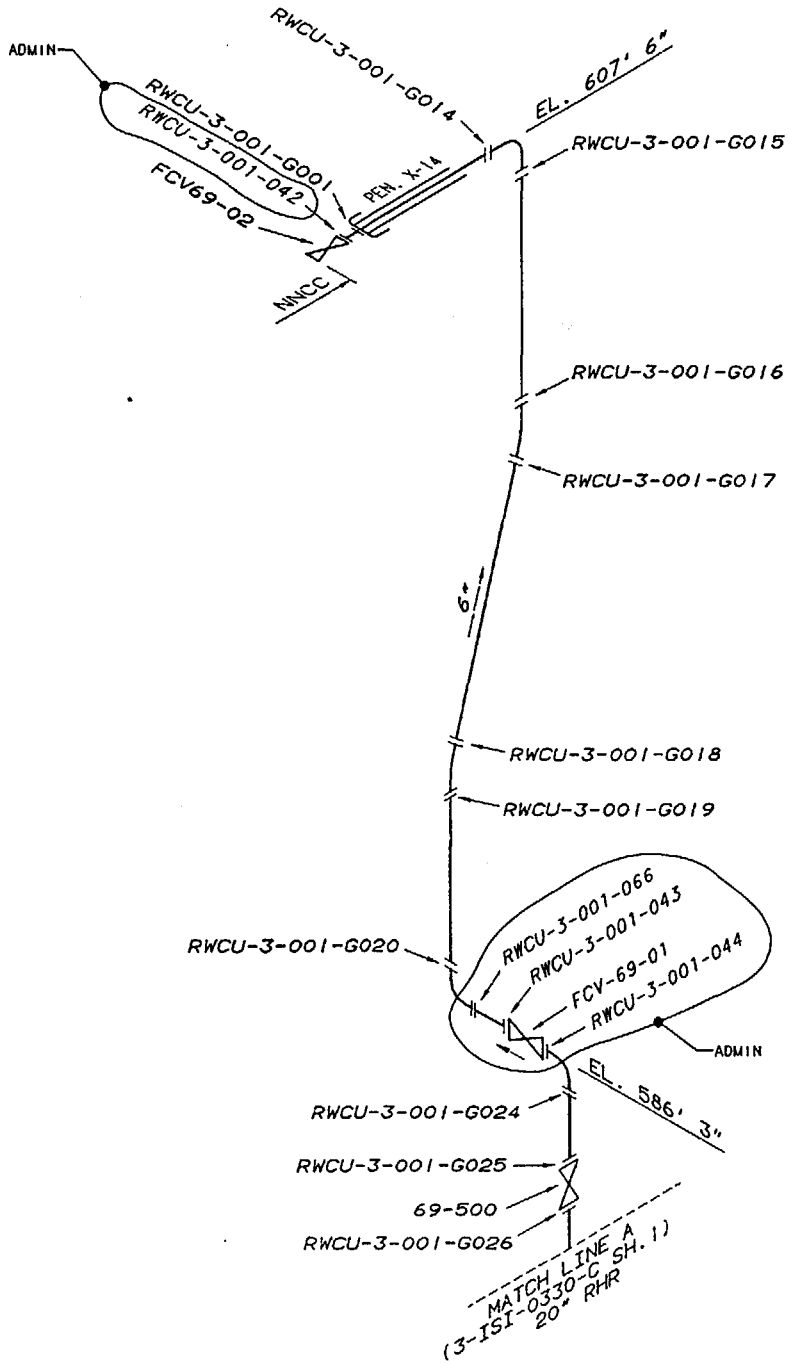
NOTE:
THIS DRAWING SUPERSEDES A PORTION OF CHM-2144-C

MATERIAL SPECIFICATIONS

FITTINGS
6" SA403 WP316NG SCH. 80

PIPING
6" SA376 TP316NG SCH. 80

ASME CC-1 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
000	CCD/ADMIN	RGP	JT	RLG/M	10 22 95

ISSUED TO CREATE CCD. SUPERSEDES A/D 1SI 0332-C 1 R03 AND TO DEPICT AS-CONSTRUCTED STATUS PER A/E R0-R2; REVISED PER R MS MEMO R21 951013 003 (ADMINISTRATIVE REVISION)

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
REACTOR WATER CLEAN UP, RCIC, AND CRD
WELD IDENTIFICATION

DRAWN: PHB	DATE: 5-17-89	SCALE: NTS	CADAM/TS/CAP
CHECKED: JES	APPROVED: GLB	SHEET 01 OF 02	REV
SUBMITTED: EDC		3-ISI-0332-C	000

CCD

PROCAD

ALL A/D HISTORY RESEARCHED AT R000

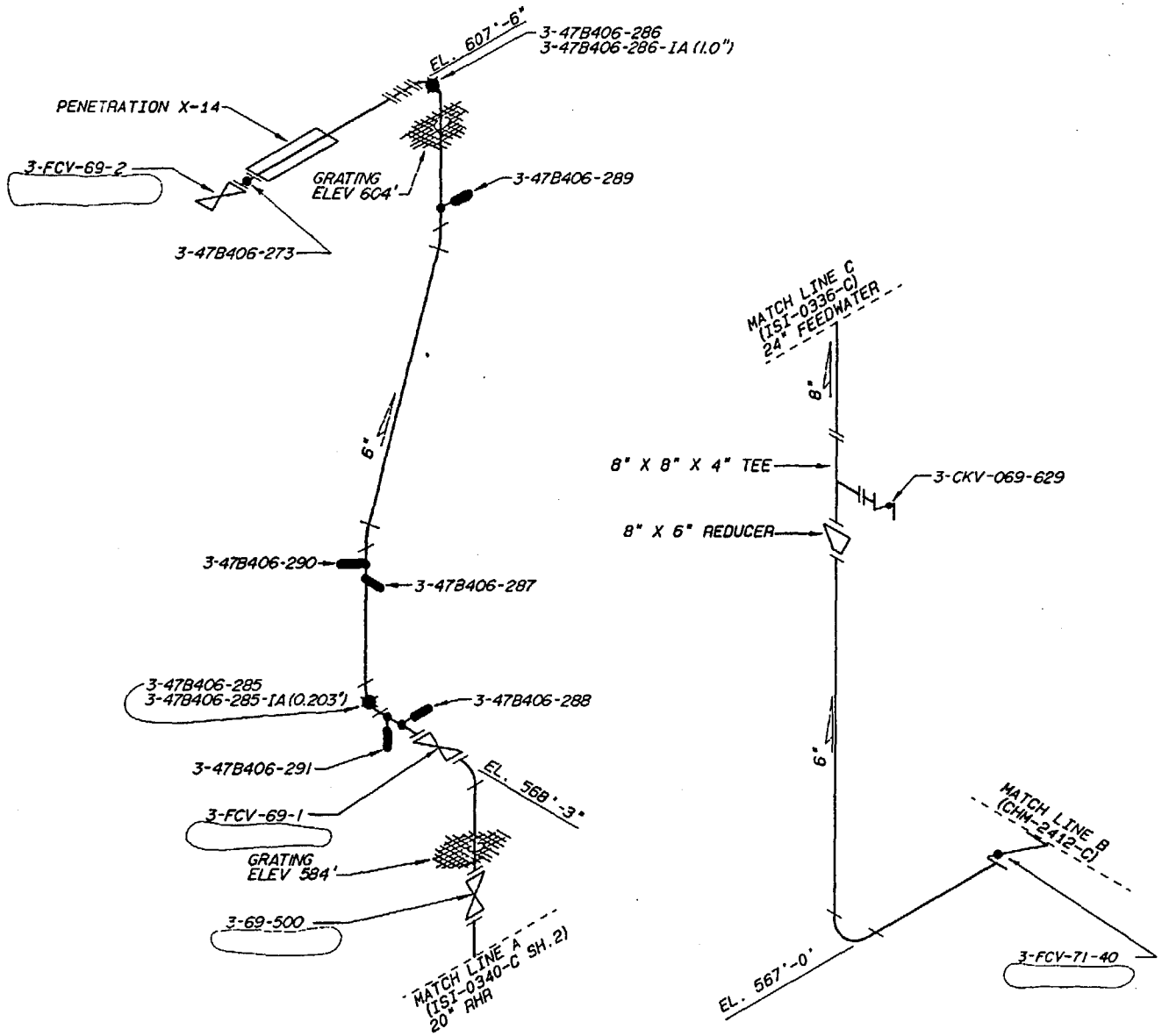
REFERENCE DRAWINGS:
TVA 47W335-14
TVA 47W335-17
TVA 47K177B
ISI-0332-C (SH. 1) WELD MAP

NOTE: THIS DRAWING SUPERCEDES CHM-2146-C ALL SHEETS.

LEGEND:
- RIGID STRUT
- RIGID HANGER
- VARIABLE HANGER
- MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIER
CD-Q3069-922776
CD-Q3068-922490

ASME CC-1 (EQUIVALENT)



REV NO.	CHANGE REF	DATE	DFTM	CHKR	DSGN	RVWR	APPD	APPD	APPD	
001	ADMIN		RDL		N/A		N/A	N/A		
	REVISED PER RIMS MEMO R14 870505 30A									

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR ENGINEERING

BROWNS FERRY NUCLEAR PLANT
UNIT 3
REACTOR WATER CLEAN UP AND RCIC
SUPPORT IDENTIFICATION

S

DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 3-12-88	DATE: 5-22-89	DATE: 5-22-89	SHEET 1 OF 1 SHEET (S)
CHECKED: JES	EDC	GLS	DRAWING NO. 3-ISI-0334-C REV 001
DATE: 5-19-89			

CCD

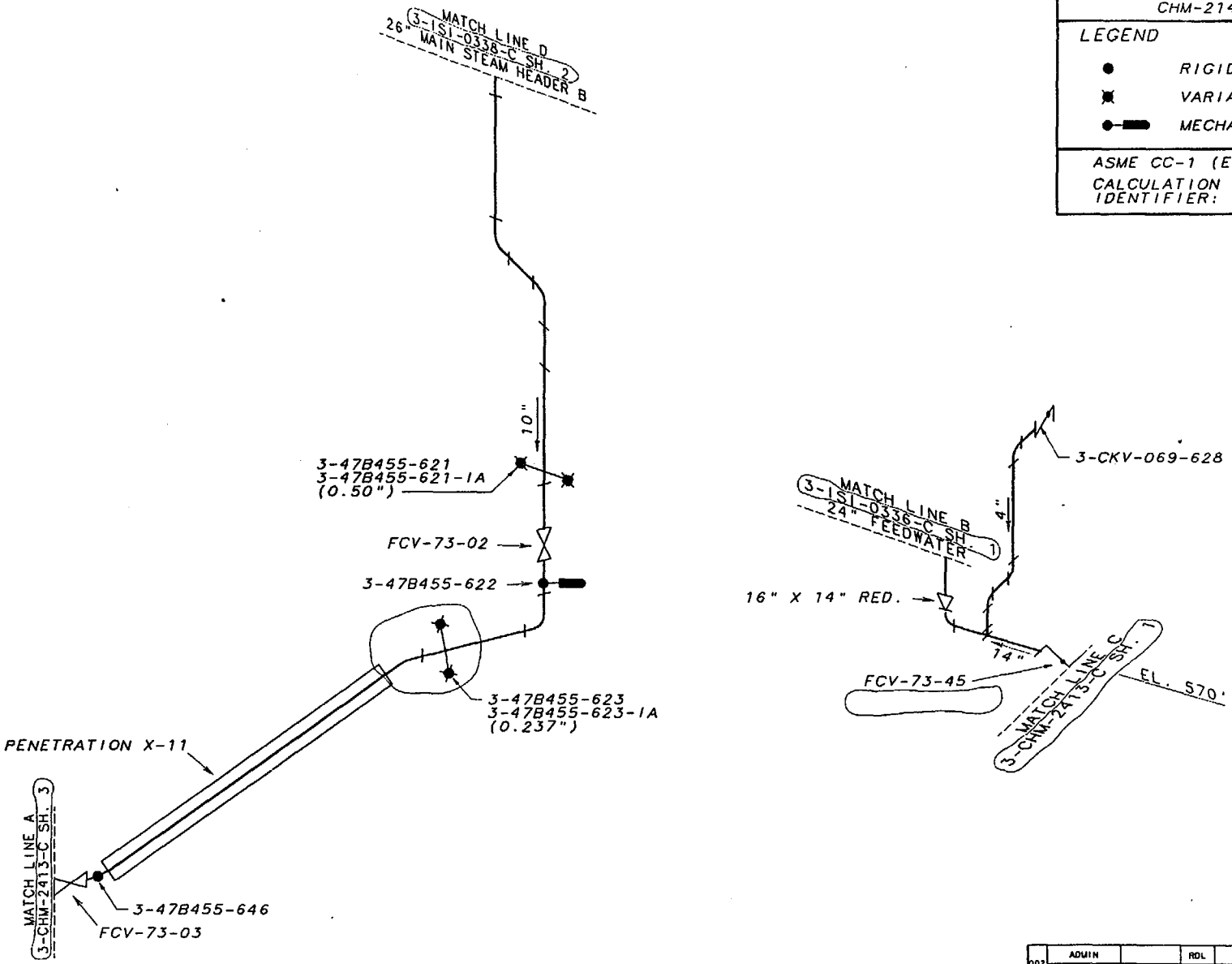
PCADAM

ALL A/D HISTORY RESEARCHED @ R000

REFERENCE DRAWINGS
TVA 47W445-4
3-ISI-0333-C (SH) WELD MAP
NOTE: THIS DRAWING SUPERSEDES CHM-2147-C ALL SHEETS

LEGEND
- RIGID HANGER
- VARIABLE HANGER
- MECHANICAL SNUBBER

ASME CC-1 (EQUIVALENT)
CALCULATION BRANCH/PROJECT IDENTIFIER: CD-Q3001-910569



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	APPD	APPD	ISSU
002	ADMIN		RDL		N/A		N/A	N/A		
	REVISED PER RIMS MEMO R14 970505 312 AND REFERENCE DRAWINGS									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
HPCI AND RWCU SYSTEMS
HANGER LOCATIONS

DRAWN: PHB	DATE: 5-19-89	SCALE: NTS	CADAM/ISICUP
CHECKED: JES	APPROVED: GLB	SHEET 01 OF 01	
SUBMITTED: EDC		3-ISI-0335-C	

CCD R002

CADAM

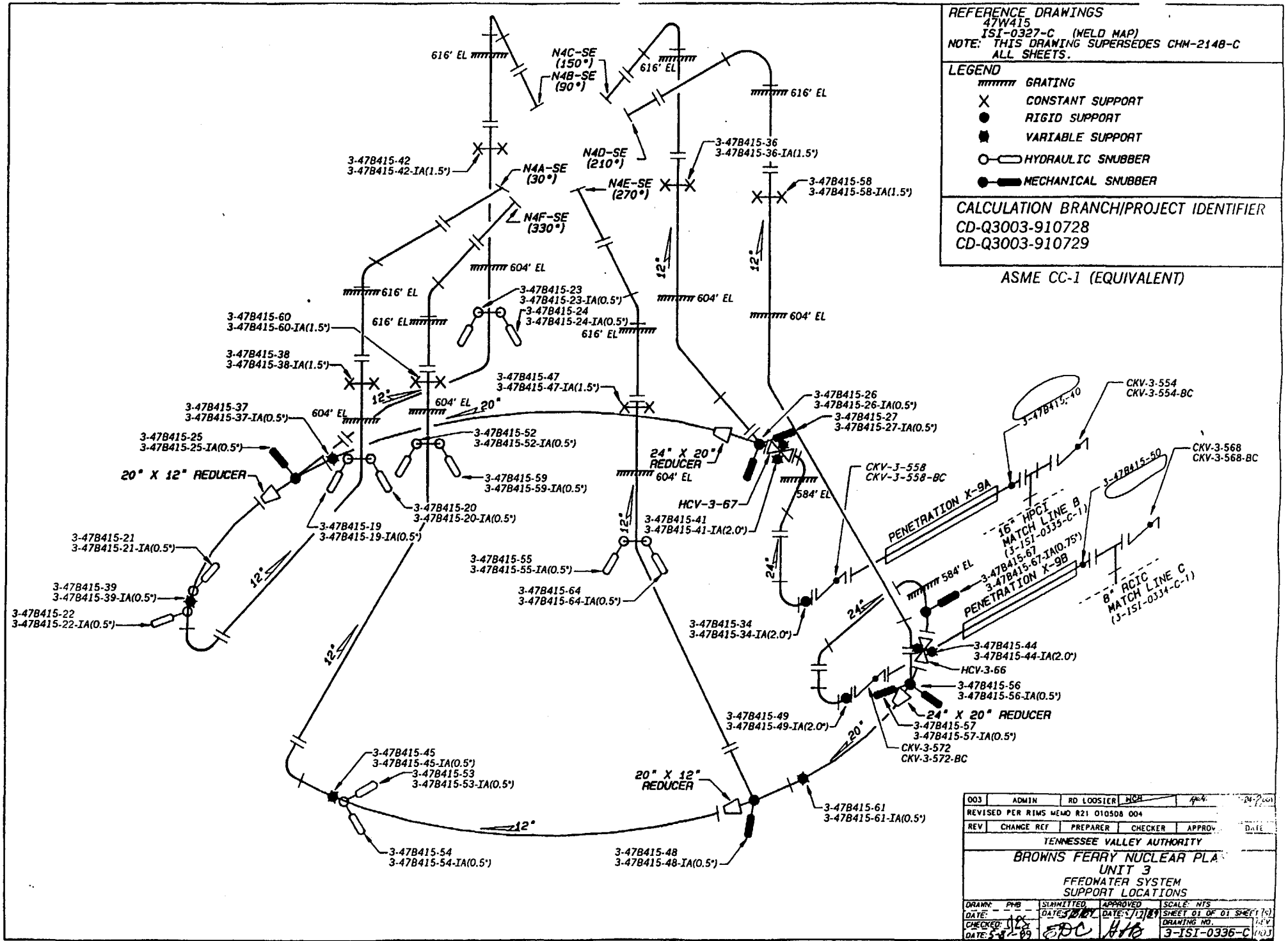
ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS
47W415
ISI-0327-C (WELD MAP)
NOTE: THIS DRAWING SUPERSEDES CHM-2148-C ALL SHEETS.

LEGEND
- GRATING
- CONSTANT SUPPORT
- RIGID SUPPORT
- VARIABLE SUPPORT
- HYDRAULIC SNUBBER
- MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIER
CD-Q3003-910728
CD-Q3003-910729

ASME CC-1 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROV	DATE
003	ADMIN	RD LOOSIER	HCA		
REVISED PER RIMS MEMO R21 010508 004					

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLA
UNIT 3
FEEDWATER SYSTEM
SUPPORT LOCATIONS

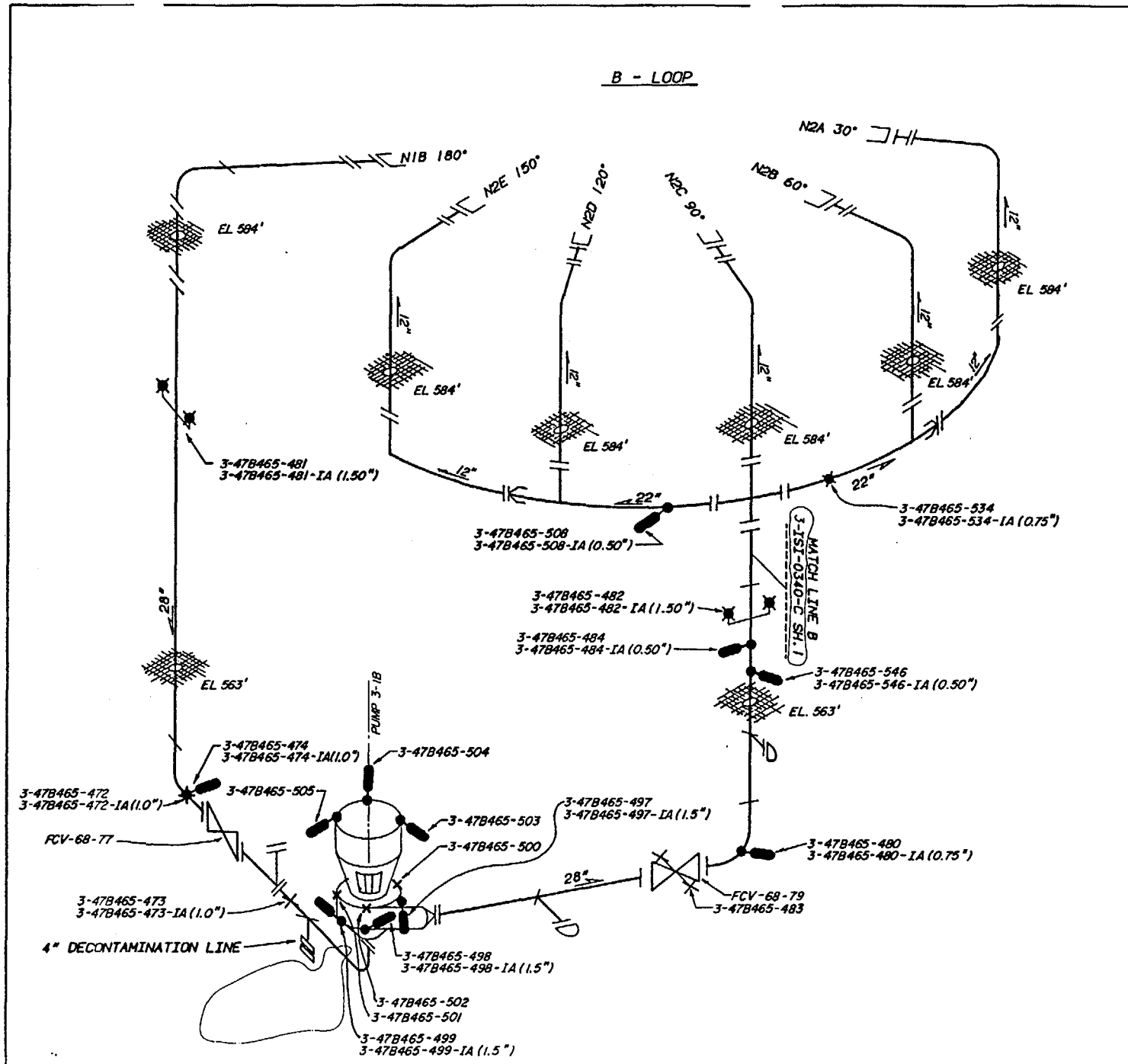
DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE:	DATE:	DATE: 5/17/89	SHEET 01 OF 01 SHEETS
CHECKED:			DRAWING NO. 3-ISI-0336-C
DATE: 5-4-89			REV 003

CAD MAINTAINED DRAWING

CCD

AutoCAD

ALL A/D HISTORY RESEARCHED @ R000



REFERENCE DRAWINGS:

TVA 47K1544-3
GE 729E461
KELLOGG BF 2-180
NOTE: THIS DRAWING SUPERSEDES CHM-2149-C ALL SHEETS

LEGEND:

- RIGID SUPPORT
- VARIABLE SUPPORT
- MECHANICAL SNUBBER
- CONSTANT FORCE SUPPORT (CF)
- RIGID STRUT

CALCULATION BRANCH/PROJECT IDENTIFIER:
CD-Q3068-922489

ASME - CC-I (EQUIVALENT)

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APPD	ISSD
001	ADMIN	4-23-97	RDL	JT	N/A	RLO/H	N/A	N/A	RLO	RLO/D
	REVISED PER RIMS MEMO R14 970320 306 AND DRAWING REFERENCE									

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR ENGINEERING

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RECIRCULATION SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED:	APPROVED:	SCALE NTS
DATE: 4-5-89	DATE: 5-10-89	DATE: 5/11/89	SHEET 2 OF 2 S.
CHECKED:			DRAWING NO.
DATE: 5-10-89			3-ISI-0337-C

CCD

PCADAM

ALL A/D HISTORY RESEARCHED @ R000

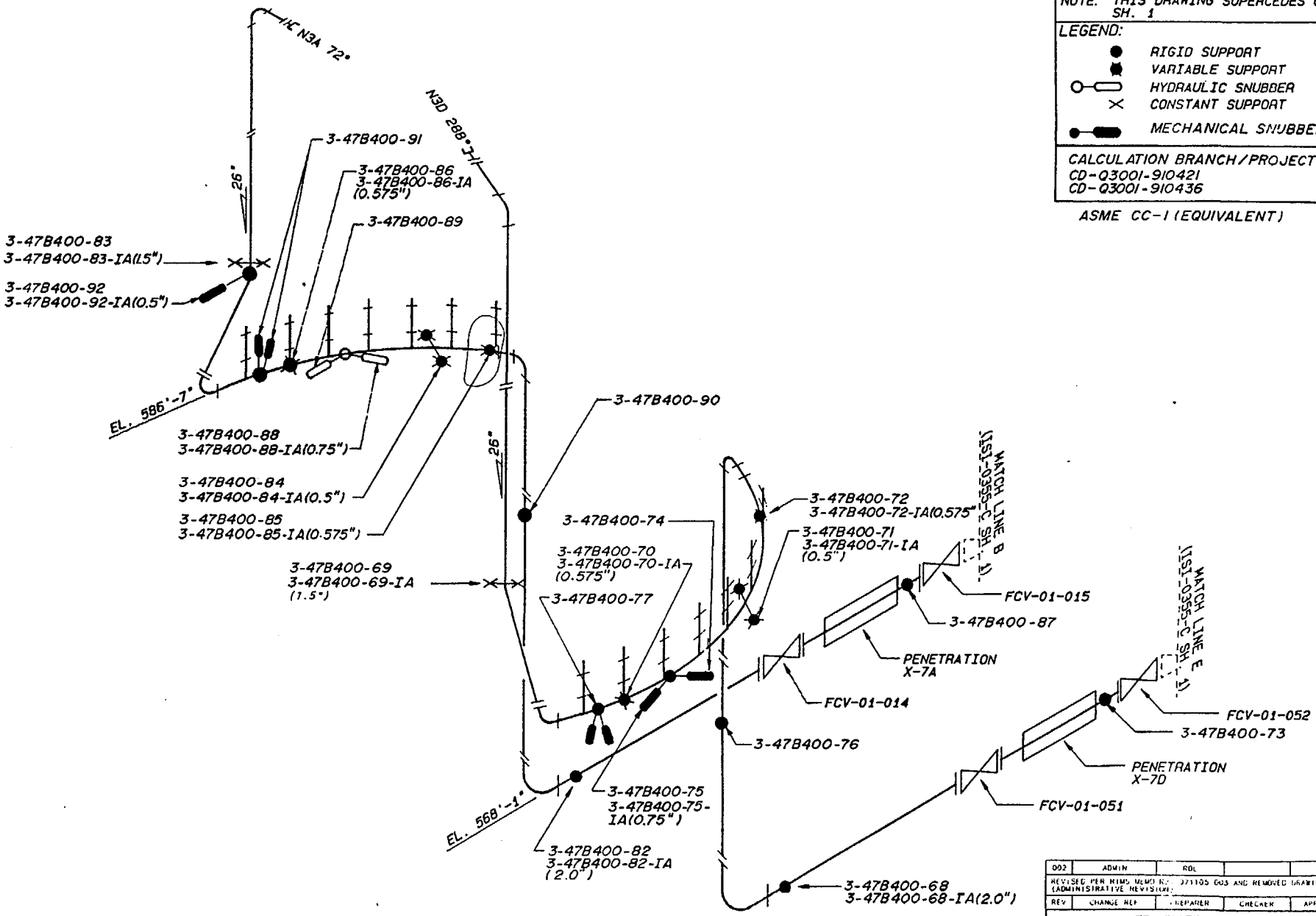
REFERENCE DRAWINGS:
GE 729E401-1, 0-729E40,
3-ISI-0329-C SH. 1 (WELD LOCATIONS)
NOTE: THIS DRAWING SUPERCEDES CHM-2150-C SH. 1

LEGEND:

- RIGID SUPPORT
- VARIABLE SUPPORT
- HYDRAULIC SNUBBER
- CONSTANT SUPPORT
- MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIERS:
CD-Q3001-910421
CD-Q3001-910436

ASME CC-1 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
002	ADMIN	RDL			

REVISED PER NIMS MEMO NO. 871105 003 AND REMOVED DRAWING CLASSIFICATION (ADMINISTRATIVE REVISION)

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
MAIN STEAM SYSTEM SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 9-12-88	DATE: 5-8-89	DATE: 5/11/89	SHEET 1 OF 2 SHEET(S)
CHECKED:			DRAWING NO. 3-ISI-0338-C REV 002
DATE: 5-8-89			CCD

PCADAM

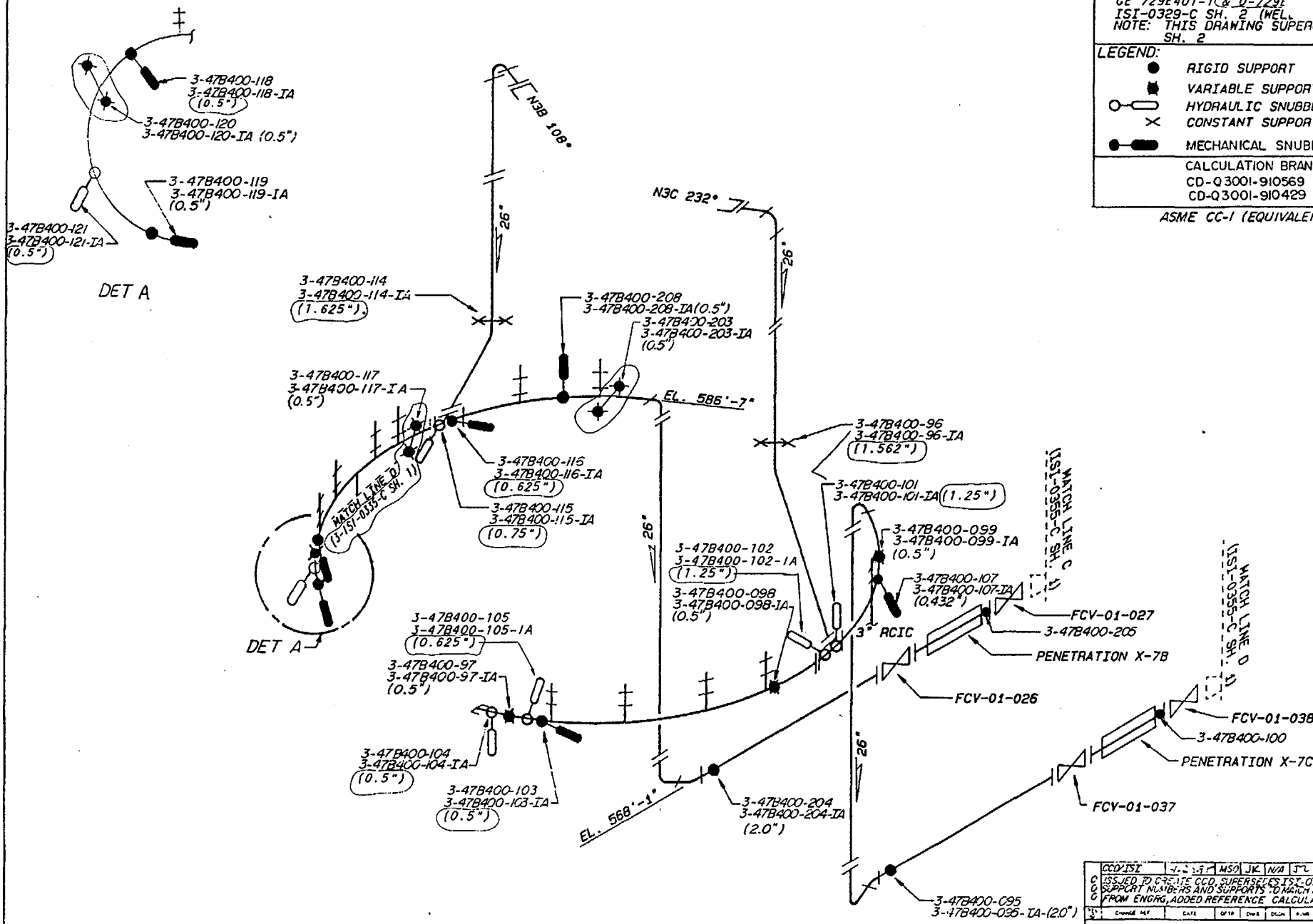
ALL A/D HISTORY RESEARCHED # R000

REFERENCE DRAWINGS:
GE 729E401-1(& 0-7291 2)
ISI-0329-C SH. 2 (WELL AP)
NOTE: THIS DRAWING SUPERCEDES CHM-2150-C SH. 2

LEGEND:
- RIGID SUPPORT
- VARIABLE SUPPORT
- HYDRAULIC SNUBBER
- CONSTANT SUPPORT
- MECHANICAL SNUBBER

CALCULATION BRANCH/ PROJECT ID:
CD-Q3001-910569
CD-Q3001-910429

ASME CC-I (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1APPD	2APPD	3APPD	ISSD
001	REVISED SUPPORT TYPES AND ADDED INTEGRAL ATTACHMENT THICKNESS PER RIMS MEMO R92 960521 875; UPDATED REFERENCE DRAWINGS TO REFLECT UNITIZATION (ADMINISTRATIVE REVISION)	ADMIN		RDL		N/A		N/A	N/A	

REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1APPD	2APPD	3APPD	ISSD
C	CCD/ISI	[illegible]	[illegible]	MSO	JK	N/A	JL	[illegible]	[illegible]	[illegible]
C	ISSUED TO CREATE CCD. SUPERSEDES ISI-0339-C-2 POI. REVISED SUPPORT NUMBERS AND SUPPORTS TO MATCH NEW NUMBERS AND SPRTS FROM ENGRG, ADDED REFERENCE CALCULATIONS (ISI REVISION)									

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
MAIN STEAM SYSTEM SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED:	APPROVED:	SCALE: NTS
DATE: 9-12-88	DATE: 5/18/89	DATE: 5/18/89	SHEET 2 OF 2 SHEET(S)
CHECKED: [illegible]			DRAWING NO. 3-ISI-0338-C
DATE: 5-8-89			REV 001

CCD

PCADAM

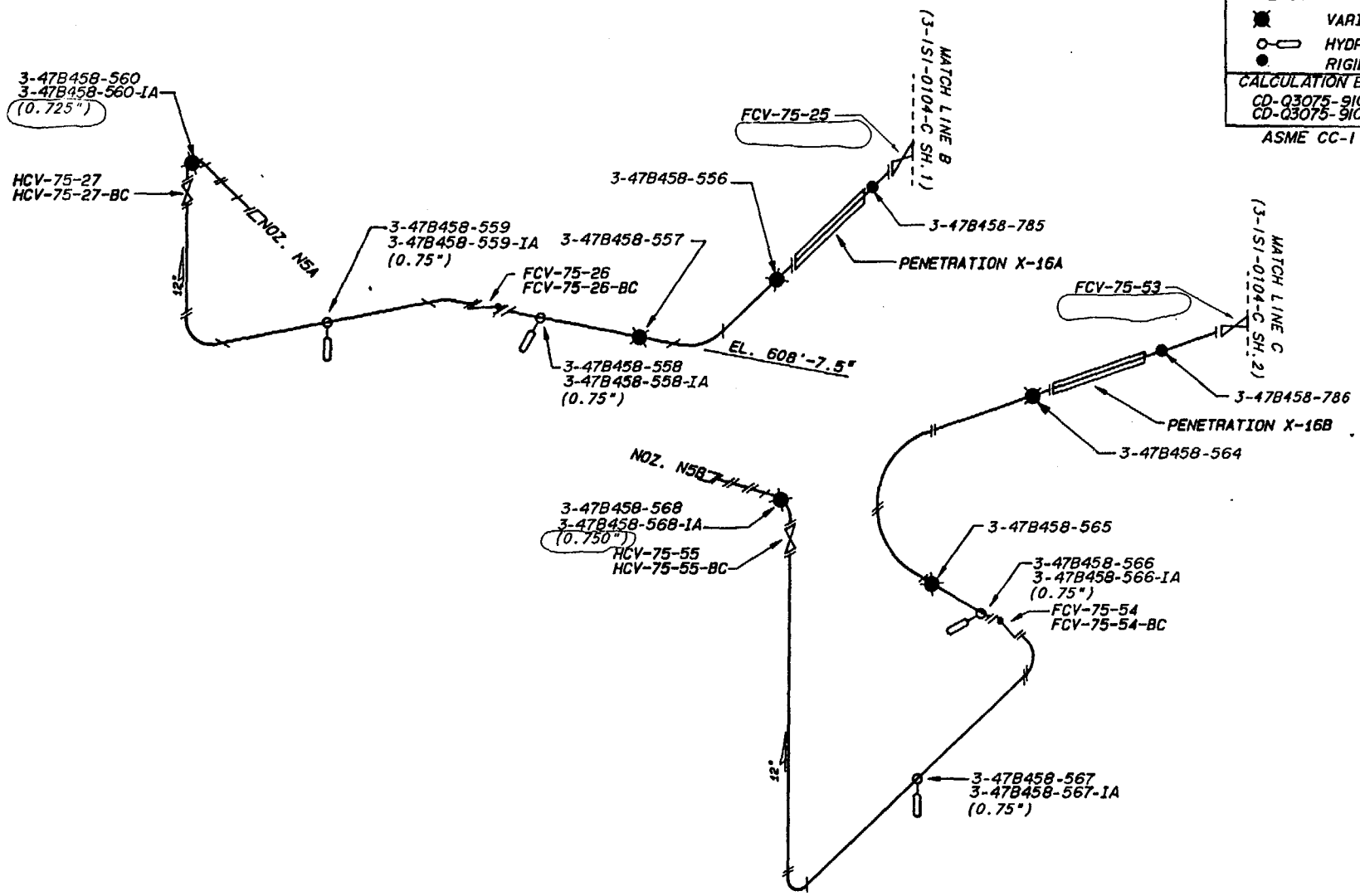
ALL A/D HISTORY RESEARCHED ▶ R000

REFERENCE DRAWINGS:
0-47W458-1
ISI-0331-C (SH. 1) h. MAP
NOTE: THIS DRAWING SUPERCEDES CHN: 52-C ALL SHEETS.

LEGEND:
VARIABLE HANGER
HYDRAULIC SNUBBER
RIGID HANGER

CALCULATION BRANCH/PROJECT IDENTIFIERS:
CD-03075-910416
CD-03075-910417

ASME CC-1 (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	DWGR	1 APPD	2 APPD	3 APPD	1 Ins
003	ADMIN	5-13-97	RDL	JT	N/A	RLD/M	N/A	N/A	RLD	MKW
	REVISED PER RIMS MEMO R14 970505 301									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
CORE SPRAY SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED:	APPROVED:	SCALE: NTS
DATE: 9-12-88	DATE: 5-15-89	DATE: 5/15/89	SHEET 1 OF 1 SHEET
CHECKED: GCC	EJC		DRAWING NO. 3-ISI-0339-C
DATE: 5-15-89			REV 003

CCD

PCADAM

ALL A/D HISTORY RESEARCHED @ R000

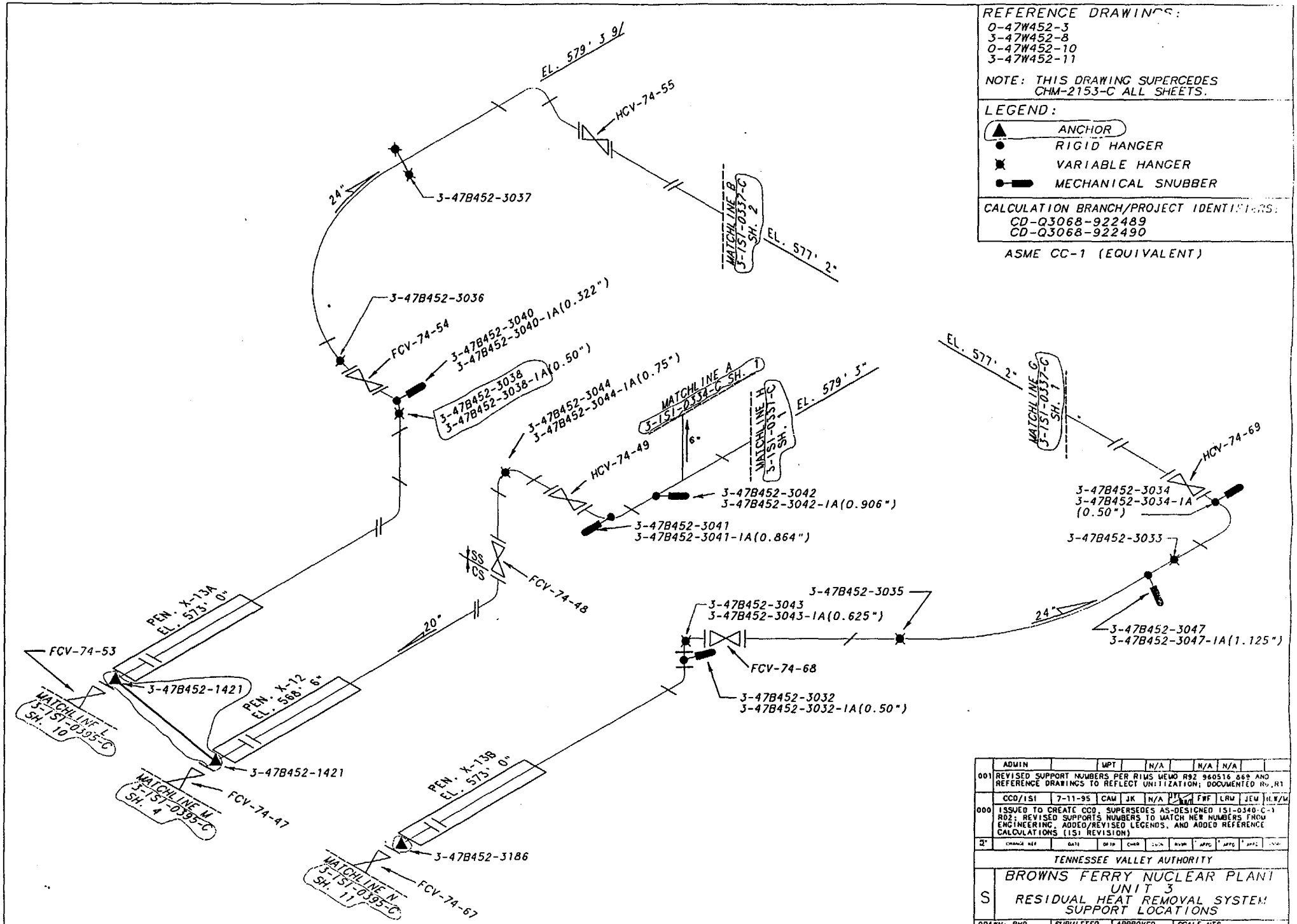
REFERENCE DRAWINGS:
0-47W452-3
3-47W452-8
0-47W452-10
3-47W452-11

NOTE: THIS DRAWING SUPERCEDES CHM-2153-C ALL SHEETS.

LEGEND:
- ANCHOR
- RIGID HANGER
- VARIABLE HANGER
- MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIERS:
CD-Q3068-922489
CD-Q3068-922490

ASME CC-1 (EQUIVALENT)



	ADMIN		WPT		N/A		N/A	N/A		
001	REVISED SUPPORT NUMBERS PER RIMS MEMO R92 960516 669 AND REFERENCE DRAWINGS TO REFLECT UNITIZATION; DOCUMENTED R0,R1									
	CCD/ISI	7-11-95	CAW	JK	N/A		FWF	LRW	JEW	HLW/M
000	ISSUED TO CREATE CCD. SUPERSEDES AS-DESIGNED ISI-0340-C-1 R02; REVISED SUPPORTS NUMBERS TO MATCH NEW NUMBERS FROM ENGINEERING. ADDED/REVISED LEGENDS, AND ADDED REFERENCE CALCULATIONS (ISI REVISION)									
2"	CHANGE REF	DATE	DR'D	CHKD	DSGN	REVIW	APPD	APPD	APPD	CONC

TENNESSEE VALLEY AUTHORITY

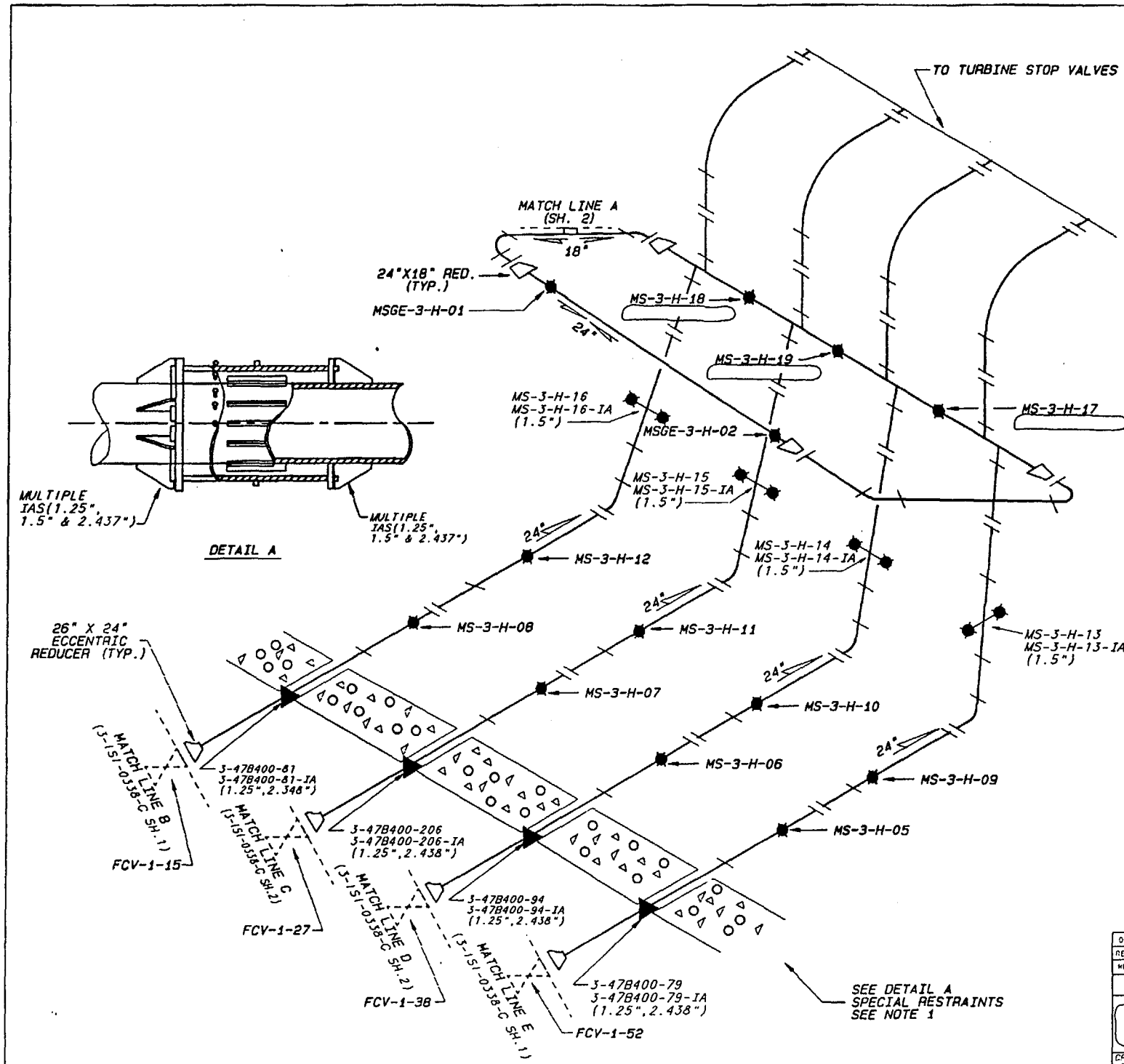
S — BROWNS FERRY NUCLEAR PLANT UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 2-21-89	DATE 5-10-89	DATE 5-17-89	SHEET 01 OF 01 SHEETS
CHECKED: JES	EDC	GLB	DRAWING NO. 3-1SI-0340-C REV. 001
DATE: 5-10-89			

CCD

CADAM

ALL A/D HISTORY RESEARCHED • R000



REFERENCE DRAWINGS

BP-201-3
0-47W400 SH. 1 & 5
DRAVO E-2479-IC-1
ISI-0354-C (SH. 1) WELD MAP
NOTE: THIS DRAWING SUPERSEDES CHM-2411-C SH. 1

LEGEND

- ● RIGID SUPPORT
- ▼ VARIABLE SUPPORT
- ▲ ANCHOR

CALCULATION BRANCH PROJECT IDENTIFIERS

CD-Q3001-910436
CD-Q3001-910569
CD-Q3001-910429
CD-Q3001-910421

ASME CC-2 (EQUIVALENT)

NOTES:

1. REFERENCE SI-4.6.G. REQUEST FOR RELIEF ISI-11 DRAWING NO. 0-47W400 SH. 1 & 5
2. IN DETAIL A THE X CORRESPONDS TO THE SUPPORT NUMBER.

REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
002	ADVIN	RVL	JT	RLD/H	10 29 88
REVISED PER RIMS MEMO T21 881013 003 AND REMOVED DRAWING CLASSIFICATION.					

TENNESSEE VALLEY AUTHORITY

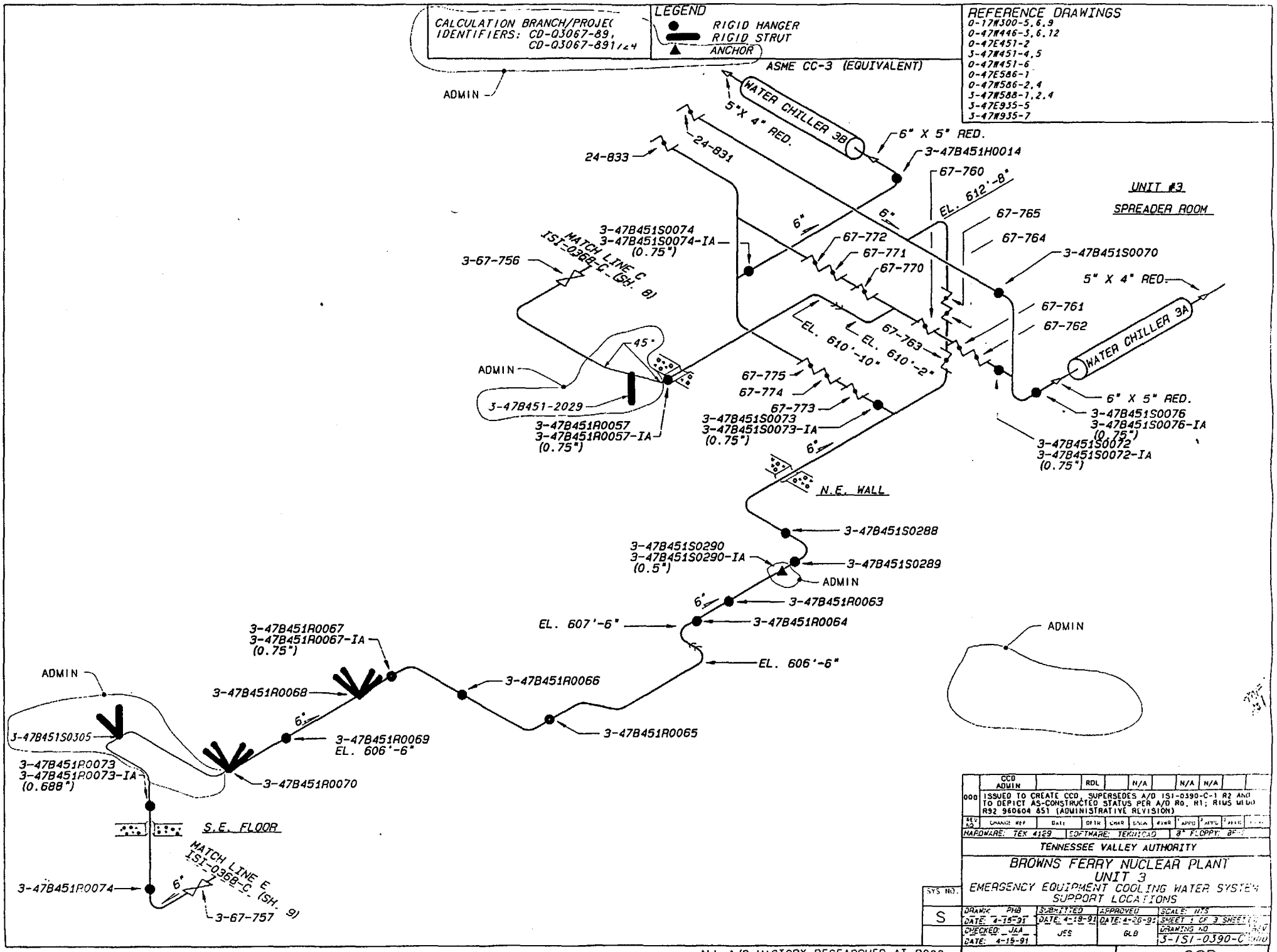
BROWNS FERRY NUCLEAR PLANT
UNIT 3
MAINSTEAM SYSTEM
SUPPORT LOCATIONS

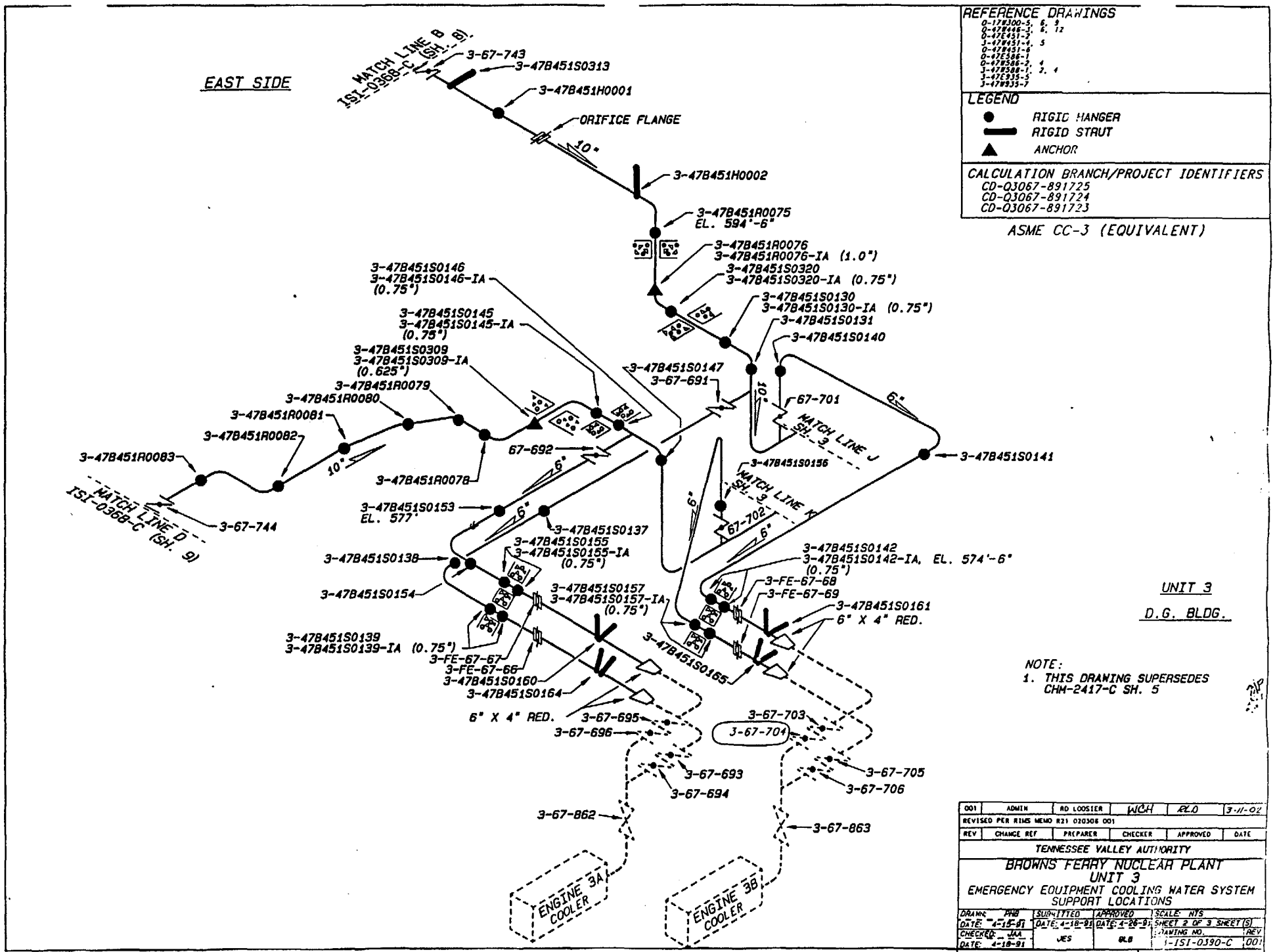
DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 4-15-89	DATE: 5/5/89	DATE: 5/11/89	SHEET 1 OF 2 SHEET(S)
CHECKED: JCC			DRAWING NO. 3-ISI-0355-C REV 002
DATE: 5-4-89			

CCD

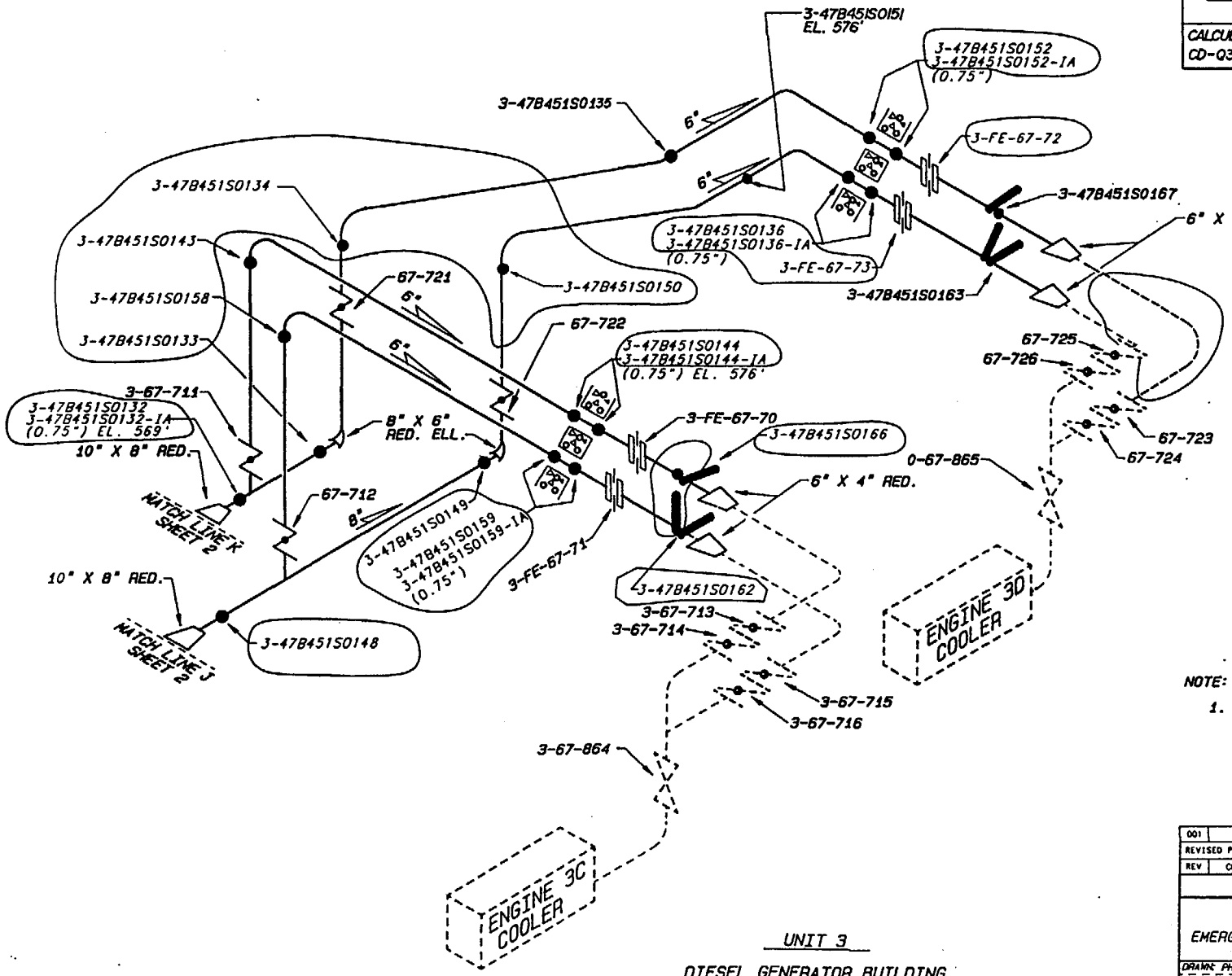
PCADAM

ALL A/D HISTORY RESEARCHED AT R000


CALCULATION BRANCH/PROJEC
IDENTIFIERS: CD-Q3067-89,
CD-Q3067-891/24
LEGEND
RIGID HANGER
RIGID STRUT
ANCHOR
REFERENCE DRAWINGS
0-17W300-5,6,9
0-47W446-3,6,12
0-47E451-2
3-47W451-4,5
0-47W451-6
0-47E586-1
0-47W586-2,4
3-47W588-1,2,4
3-47E935-5
3-47W935-7
ASME CC-3 (EQUIVALENT)
ADMIN
WATER CHILLER 3B
5"X 4" RED.
6" X 5" RED.
3-47B451H0014
24-833
24-831
67-760
EL. 612'-8"
UNIT #3
SPREADER ROOM
67-765
67-764
3-47B451S0070
5" X 4" RED.
WATER CHILLER 3A
67-761
67-762
6" X 5" RED.
3-47B451S0076
3-47B451S0076-IA
(0.75")
3-47B451S0072
3-47B451S0072-IA
(0.75")
3-47B451S0074
3-47B451S0074-IA
(0.75")
MATCH LINE C
ISI-0366-C (SH. 8)
3-67-756
67-772
67-771
67-770
67-763
EL. 610'-10"
EL. 610'-2"
45°
ADMIN
3-47B451-2029
3-47B451R0057
3-47B451R0057-IA
(0.75")
67-775
67-774
67-773
3-47B451S0073
3-47B451S0073-IA
(0.75")
N.E. WALL
3-47B451S0288
3-47B451S0290
3-47B451S0290-IA
(0.5")
3-47B451S0289
ADMIN
3-47B451R0063
EL. 607'-6"
3-47B451R0064
EL. 606'-6"
ADMIN
3-47B451R0067
3-47B451R0067-IA
(0.75")
ADMIN
3-47B451R0068
3-47B451R0066
3-47B451S0305
3-47B451R0069
EL. 606'-6"
3-47B451R0065
3-47B451R0073
3-47B451R0073-IA
(0.688")
3-47B451R0070
S.E. FLOOR
MATCH LINE E
ISI-0366-C (SH. 9)
3-47B451R0074
3-67-757
CCD ADMIN
RDL
N/A
N/A
N/A
000
ISSUED TO CREATE CCD. SUPERSEDES A/D ISI-0390-C-1 R2 AND TO DEPICT AS-CONSTRUCTED STATUS PER A/D R0, R1; R1WS MOD R92 960604 ASI (ADMINISTRATIVE REVISION)
HARDWARE: TEK 4129
SOFTWARE: TEKNICAD
8" FLOPPY:
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT
UNIT 3
EMERGENCY EQUIPMENT COOLING WATER SYSTEM
SUPPORT LOCATIONS
SYS NO.
S
DRAWN: PHB
DATE: 4-15-91
CHECKED: JAA
DATE: 4-15-91
SUBMITTED
DATE: 4-18-91
JES
APPROVED
DATE: 4-26-91
GLB
SCALE: N/S
SHEET 1 OF 3 SHEET
DRAWING NO
3-ISI-0390-C
CCD
PCADAM
ALL A/D HISTORY RESEARCHED AT R000


EAST SIDE
MATCH LINE B (SH. 9) 1SI-0368-C
3-67-743
3-47B451S0313
3-47B451H0001
ORIFICE FLANGE
10"
3-47B451H0002
3-47B451R0075
EL. 594'-6"
3-47B451R0076
3-47B451R0076-IA (1.0")
3-47B451S0320
3-47B451S0320-IA (0.75")
3-47B451S0130
3-47B451S0130-IA (0.75")
3-47B451S0131
3-47B451S0140
3-47B451S0146
3-47B451S0146-IA
(0.75")
3-47B451S0145
3-47B451S0145-IA
(0.75")
3-47B451S0309
3-47B451S0309-IA
(0.625")
3-47B451R0079
3-47B451R0080
3-47B451R0081
3-47B451R0082
3-47B451R0083
3-47B451S0147
3-67-691
67-701
MATCH LINE J SH. 3
3-47B451S0141
67-692
3-47B451R0078
3-47B451S0156
MATCH LINE K SH. 3
3-47B451S0153
EL. 577'
3-67-744
MATCH LINE D 1SI-0368-C (SH. 9)
3-47B451S0137
67-702
3-47B451S0155
3-47B451S0155-IA
(0.75")
3-47B451S0138
3-47B451S0154
3-47B451S0142
3-47B451S0142-IA, EL. 574'-6"
(0.75")
3-FE-67-68
3-FE-67-69
3-47B451S0157
3-47B451S0157-IA
(0.75")
3-47B451S0161
6" X 4" RED.
3-47B451S0139
3-47B451S0139-IA (0.75")
3-FE-67-67
3-FE-67-66
3-47B451S0160
3-47B451S0164
3-47B451S0165
6" X 4" RED.
3-67-695
3-67-696
3-67-703
3-67-704
3-67-693
3-67-694
3-67-705
3-67-706
3-67-862
3-67-863
ENGINE 3A COOLER
ENGINE 3B COOLER
UNIT 3
D.G. BLDG.
NOTE:
1. THIS DRAWING SUPERSEDES CHM-2417-C SH. 5
REFERENCE DRAWINGS
0-17W300-5, 6, 9
0-47B446-1, 6, 12
0-47E451-2
3-47W451-4, 5
0-47B451-6
0-47E586-1
0-47B586-2, 4
3-47B586-1, 3, 4
3-47E935-5
3-47W935-7
LEGEND
RIGID HANGER
RIGID STRUT
ANCHOR
CALCULATION BRANCH/PROJECT IDENTIFIERS
CD-Q3067-891725
CD-Q3067-891724
CD-Q3067-891723
ASME CC-3 (EQUIVALENT)
001 ADMIN RD LOOSIER WCH RLD 3-11-02
REVISED PER RIMS MEMO R21 020306 001
REV CHANGE REF PREPARER CHECKER APPROVED DATE
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT
UNIT 3
EMERGENCY EQUIPMENT COOLING WATER SYSTEM
SUPPORT LOCATIONS
DRAWN: PWB DATE: 4-15-91
CHECKED: JAA DATE: 4-18-91
SUBMITTED: DATE: 4-18-91 JES
APPROVED: DATE: 4-26-91 BLB
SCALE: NTS
SHEET 2 OF 3 SHEET(S)
DRAWING NO. 1-ISI-0390-C
REV 001
CCD
CAD MAINTAINED DRAWING
AutoCAD
ALL A/D HISTORY RESEARCHED AT ROOD

EAST SIDE



UNIT 3

DIESEL GENERATOR BUILDING

REFERENCE DRAWINGS
0-17W300-5, 6, 9
0-47W446-3, 6, 12
0-47W451-2, 6, 3-47W451-4, 5
0-47W586-1, 4, 0-47E586-2
3-47W588-1, 2, 4
3-47W935-7, 3-47E935-5

LEGEND
● RIGID HANGER
▬ RIGID STRUT

CALCULATION BRANCH / PROJECT IDENTIFIER:
CD-Q3067-891723

ASME CC-3 (EQUIVALENT)

NOTE:

1. THIS DRAWING SUPERSEDES CHW-2417-C SH. 6 REV. 2

001	ADMIN	RD LOOSIER	WCH	RLD	3-11-02
REVISED PER RINS MEMO R21 020306 001					
REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
EMERGENCY EQUIPMENT COOLING WATER SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE: NTS
DATE: 4-15-91	DATE: 4-18-91	DATE: 4-26-91	SHEET 3 OF 3 SHEET(S)
CHECKED: JAA	JES	GLB	DRAWING NO. / REV
DATE: 4-18-91			3-1SI-0390-C / 001

CAD MAINTAINED DRAWING

CCD

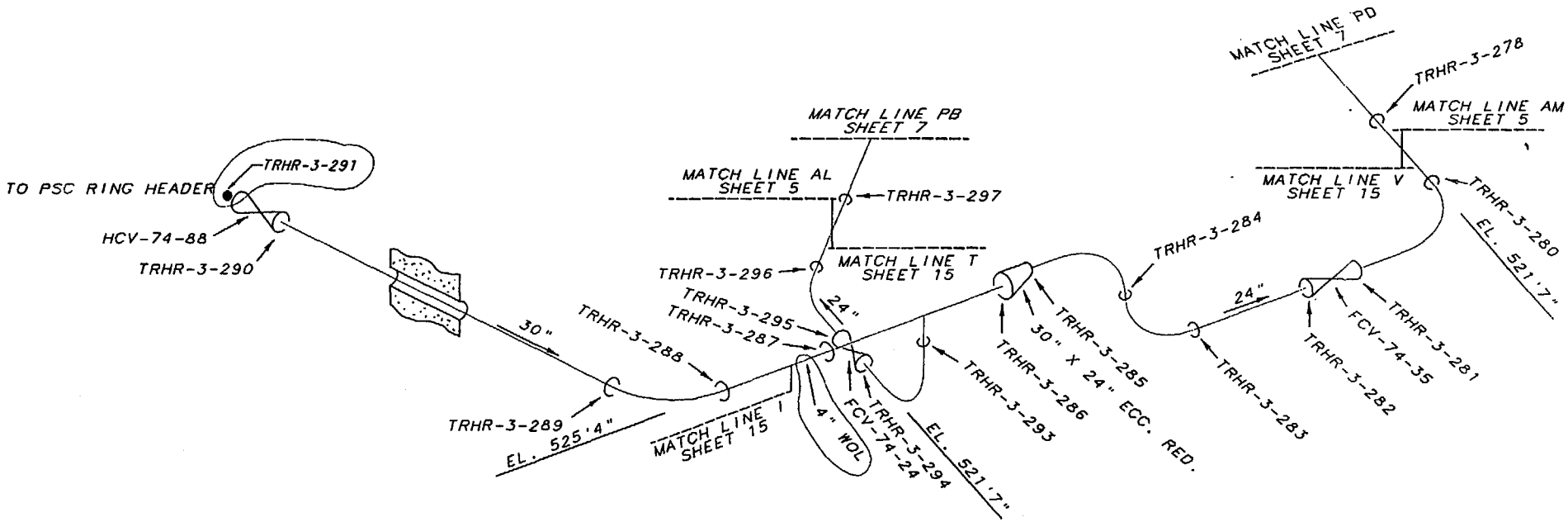
ALL A/D HISTORY RESEARCHED @ R000

REFERENCE DRAWINGS
47W452 SERIES
47W335-4

MATERIAL SPECIFICATIONS

24" X 0.375" NOM. WALL (SCH. 20) CS
30" X 0.375" NOM. WALL (STD) CS

ASME CC-2 (EQUIVALENT)



REV NO.	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1 APPD	2 APPD	3 APPD	DSGN
000	CCD ADMIN		RDL		N/A		N/A	N/A		
	ISSUED TO CREATE CCD. SUPERSEDES AS-DESIGNED 121-0393-C-14 RE AND TO REFLECT AS CONSTRUCTED STATUS PER RTUS MEMO RT4 970602 3101 A/D RO-81									

S TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
WELD LOCATIONS

DRAWN: PHB	DATE: 9-24-91	SCALE: NTS	CADAM
CHECKED: JAA	APPROVED: GLB	SHEET 14 OF 17	REV
SUBMITTED: JES		3-1SI-0393-C	000
		CCD	

PCADAM

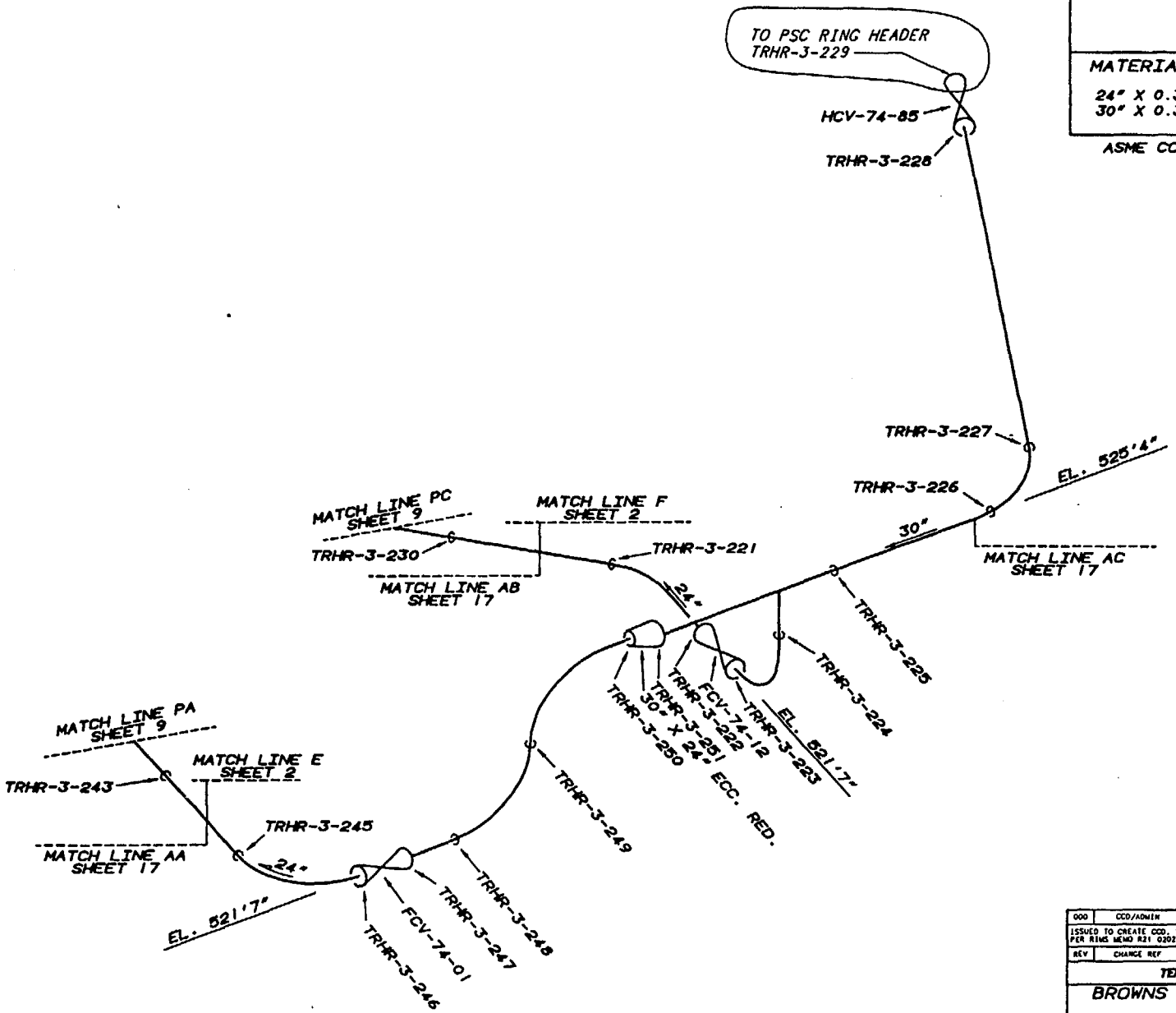
ALL A/D HISTORY RESEARCHED, AT R000

REFERENCE DRAWINGS
47W452 SERIES
47W335-4

MATERIAL SPECIFICATIONS

24" X 0.375" NOM. WALL (SCH. 20) CS
30" X 0.375" NOM. WALL (STD) CS

ASME CC-2 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
000	CCD/ADMIN	RC PHILLIPS	WCH	RCD	2-

ISSUED TO CREATE CCD. SUPERSEDES AS-DESIGNED ISI-0393-C-16 R2 AND REV
PER RIMS MEMO R21 020223 001 (ADMINISTRATIVE REVISION)

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
WELD LOCATIONS

DRAWN: PHB	DATE: 9-24-91	SCALE: NTS	CADAM/STICHP
CHECKED: JAA	APPROVED: GLB	SHEET 16 OF 17	REV
SUBMITTED: JES		3-ISI-0393-C	000

CCD

CAD MAINTAINED DRAWING

REFERENCE DRAWINGS
47W403-206
47W403-208
47W452-H SERIES
47W3452 SERIES

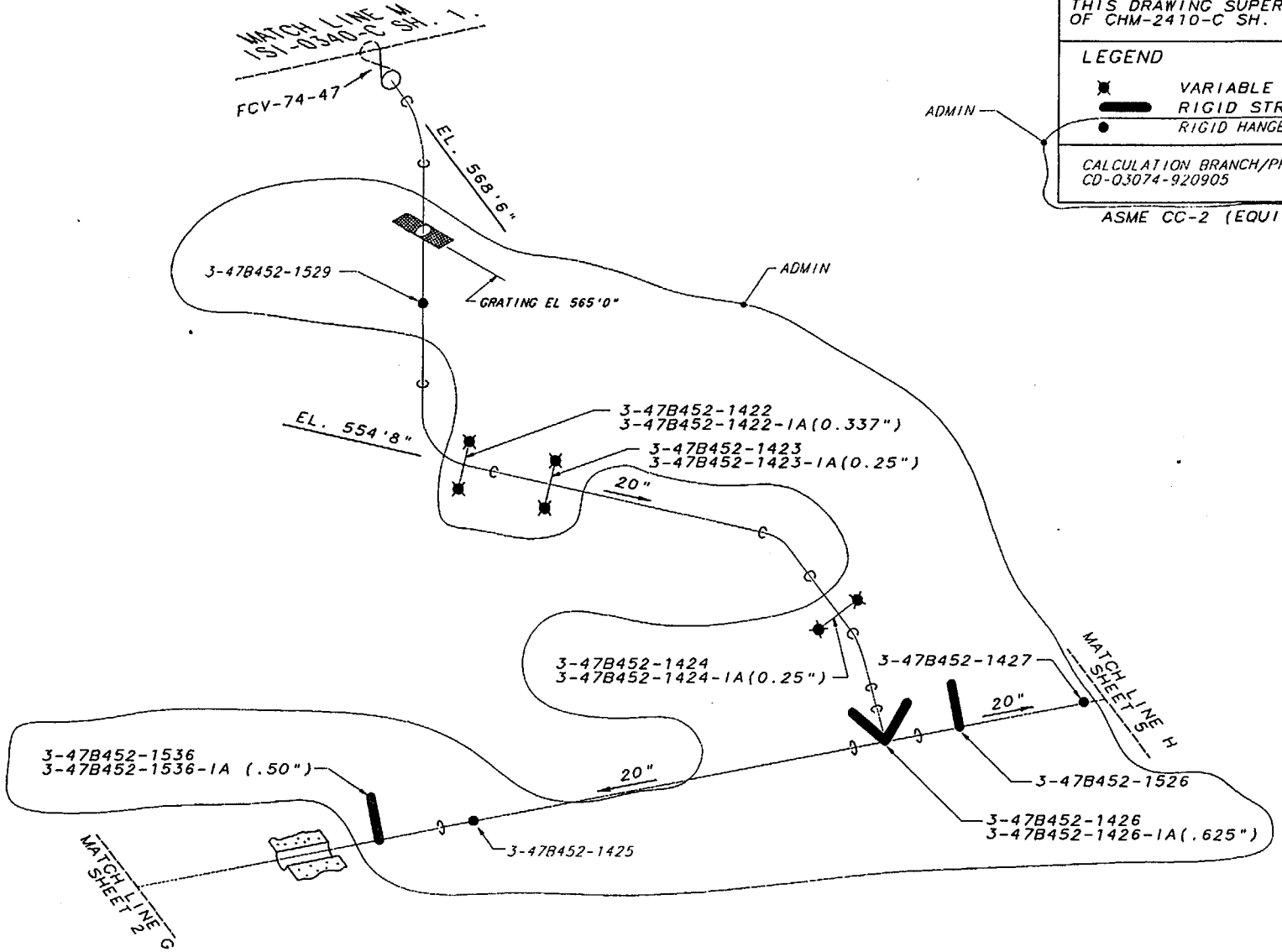
THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 1

LEGEND

- VARIABLE SUPPORT
- RIGID STRUT
- RIGID HANGER

CALCULATION BRANCH/PROJECT IDENTIFIER
CD-03074-920905

ASME CC-2 (EQUIVALENT)



000	CCD/ADMIN			VEM							
	ISSUED TO CREATE CCD. SUPERSEDES A/D 1S1-0395-C-4 R01 AND TO DEPICT A/C STATUS PER A/D R0 AND RIMS MEMO R52 950717 679 (ADMINISTRATIVE REVISION)										
REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	APPD	AP.	PD	1550	

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

ADMIN

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 9 23 91	DATE: 9 [illegible] 91	SHEET 04 OF 17 SHEET(S)
CHECKED: JAA	JES	GLB	DRAWING NO. 3-1S1-0395-C
DATE: 9-20-91			REV. 000

CCD

CADAM

ALL A/D HISTORY RESEARCHED • ROGO

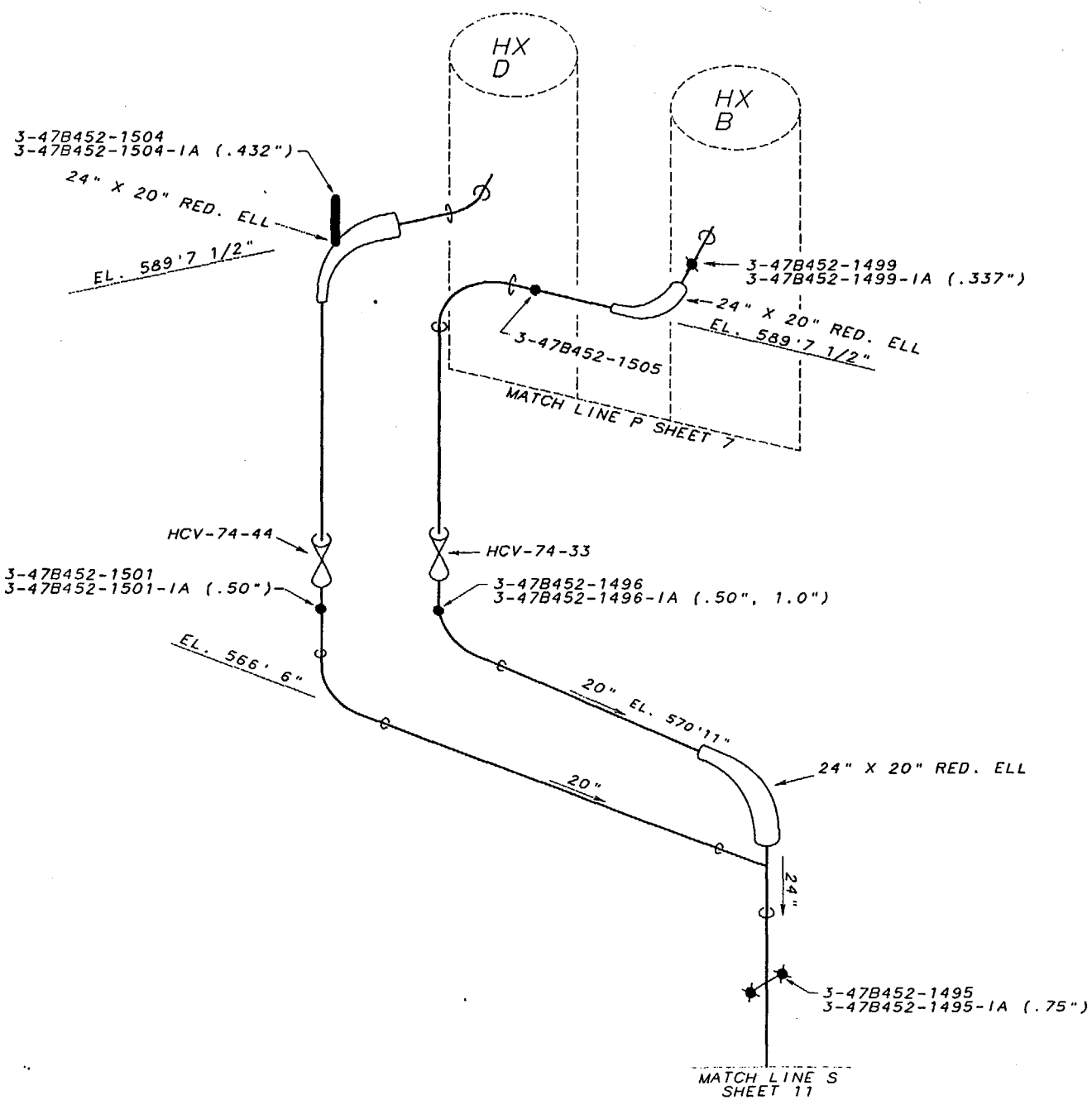
REFERENCE DRAWINGS
47W452-H SERIES
47W3452 SERIES

NOTE:
THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 2

LEGEND
- RIGID HANGER
- VARIABLE SUPPORT
- RIGID STRUT

CALCULATION BRANCH/PROJECT IDENTIFIER: CD-Q3074-921265

ASME CC-2 (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1APPD	2APPD	3APPD	ISSD
001	ADMIN		RDL		N/A		N/A	N/A		
	REVISED PER RIMS MEMO R14 970505 311									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 9-23-91	DATE: 9-29-91	SHEET 06 OF 17 SHEET(S)
CHECKED: JW	JES	GLB	DRAWING NO. 3-1S1-0
DATE: 9-23-91			REV 001

CCD

PCADAM

ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS
47W452-H SERIES
47W3452 SERIES

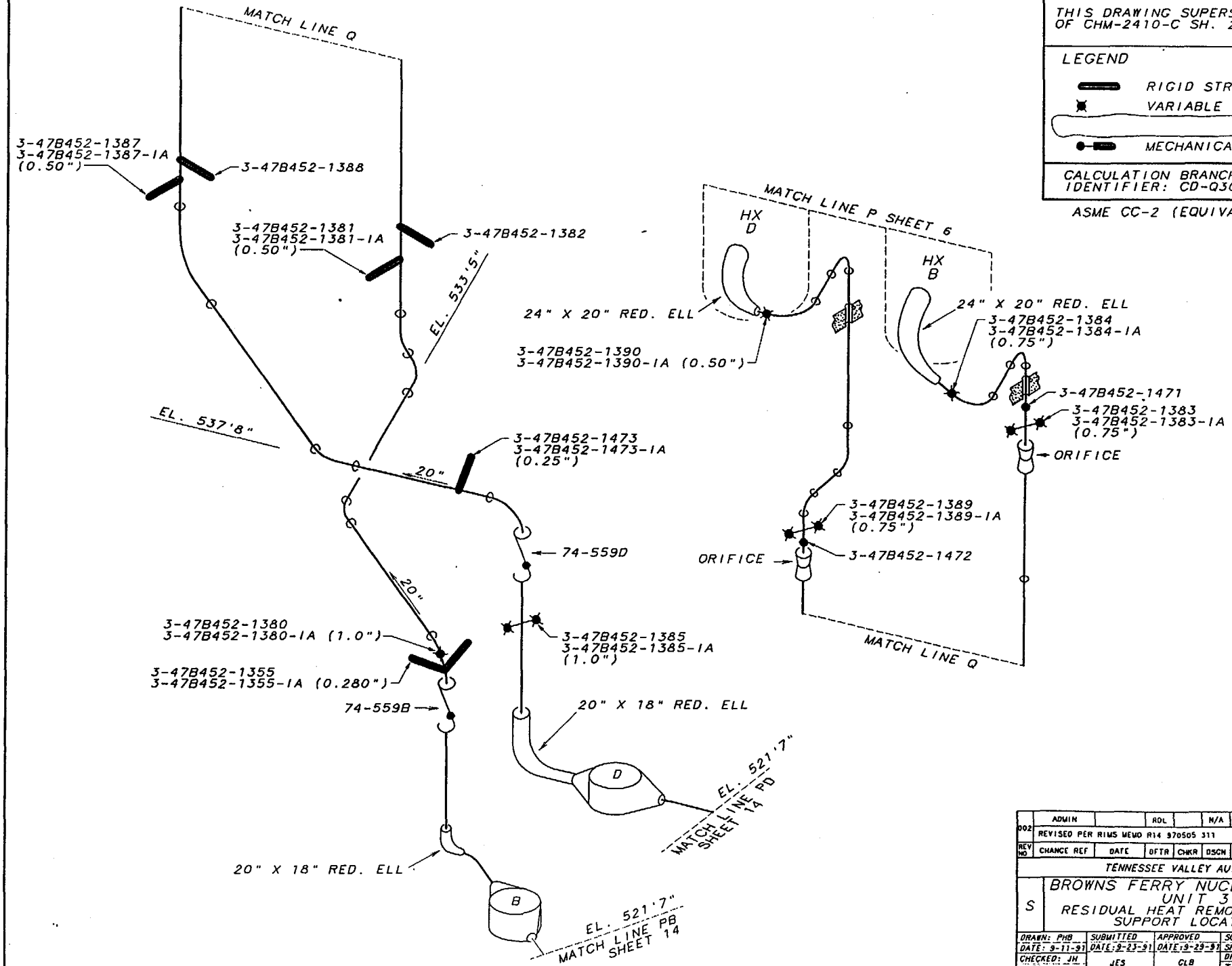
THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 2

LEGEND

RIGID STRUT
VARIABLE SUPPORT
MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIER: CD-Q3074-910400

ASME CC-2 (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1APPD	2APPD	3APPD	ISSD
002	ADMIN		RDL		N/A		N/A	N/A		
	REVISED PER RIMS MEMO R14 970505 311									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 9-23-91	DATE: 9-23-91	SHEET 07 OF 17 SHEET(S)
CHECKED: JH	JES	CLB	DRAWING NO. 3-1S1-0395-C REV. 002
DATE: 9-20-91			

THIS DRAWING IS UNDER CONFIGURATION CONTROL

CCD

PCADAM

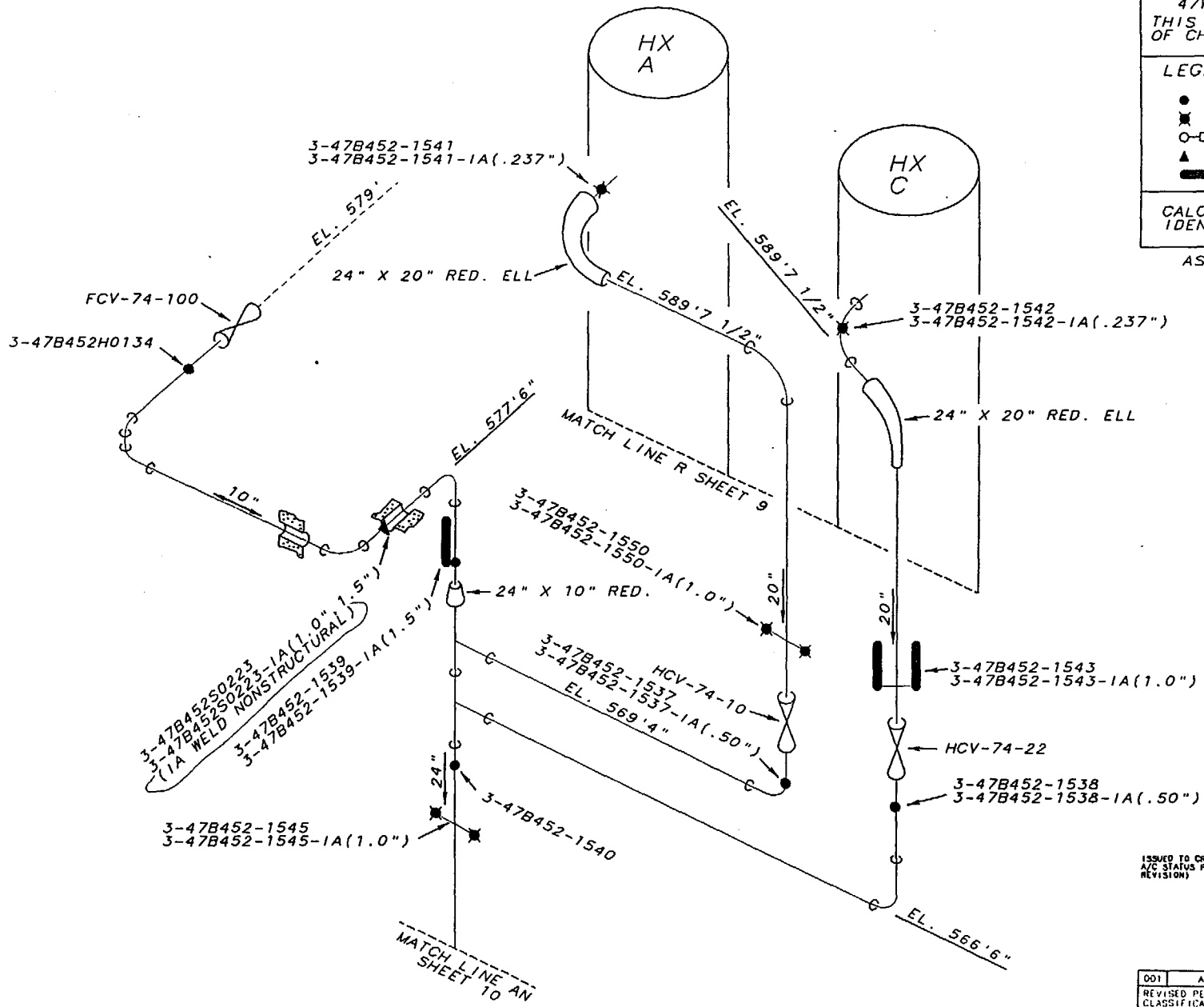
ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS
47W452-H SERIES
47W3452 SERIES
THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 2

LEGEND
- RIGID HANGER
- VARIABLE SUPPORT
- HYDRAULIC SNUBBER
- ANCHOR
- RIGID STRUT

CALCULATION BRANCH/PROJECT IDENTIFIER CD-Q3074-921266

ASME CC-2 (EQUIVALENT)



ISSUED TO CREATE CCD. SUPERSEDES A/D 1S1-0395-C-8 R01 AND TO DEPICT A/C STATUS PER A/D R0 AND RIMS MEMO R52 950717 079 (ADMINISTRATIVE REVISION)

REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
001	ADMIN	RCP	JT	RLC/H	[illegible]

REVISED PER RIMS MEMO R21 990202 001 AND REMOVED DRAWING CLASSIFICATION (ADMINISTRATIVE REVISION)

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: [illegible]	DATE: [illegible]	SHEET 08 OF 17 SHEETS
CHECKED: JH	JEG	GLB	DRAWING NO. 3-1S1-0395-C REV. 001
DATE: 9-20-91			

CCD

CADAM

ALL A/D HISTORY RESEARCHED & RDCD

REFERENCE DRAWINGS
47W452-H SERIES
47W3452 SERIES

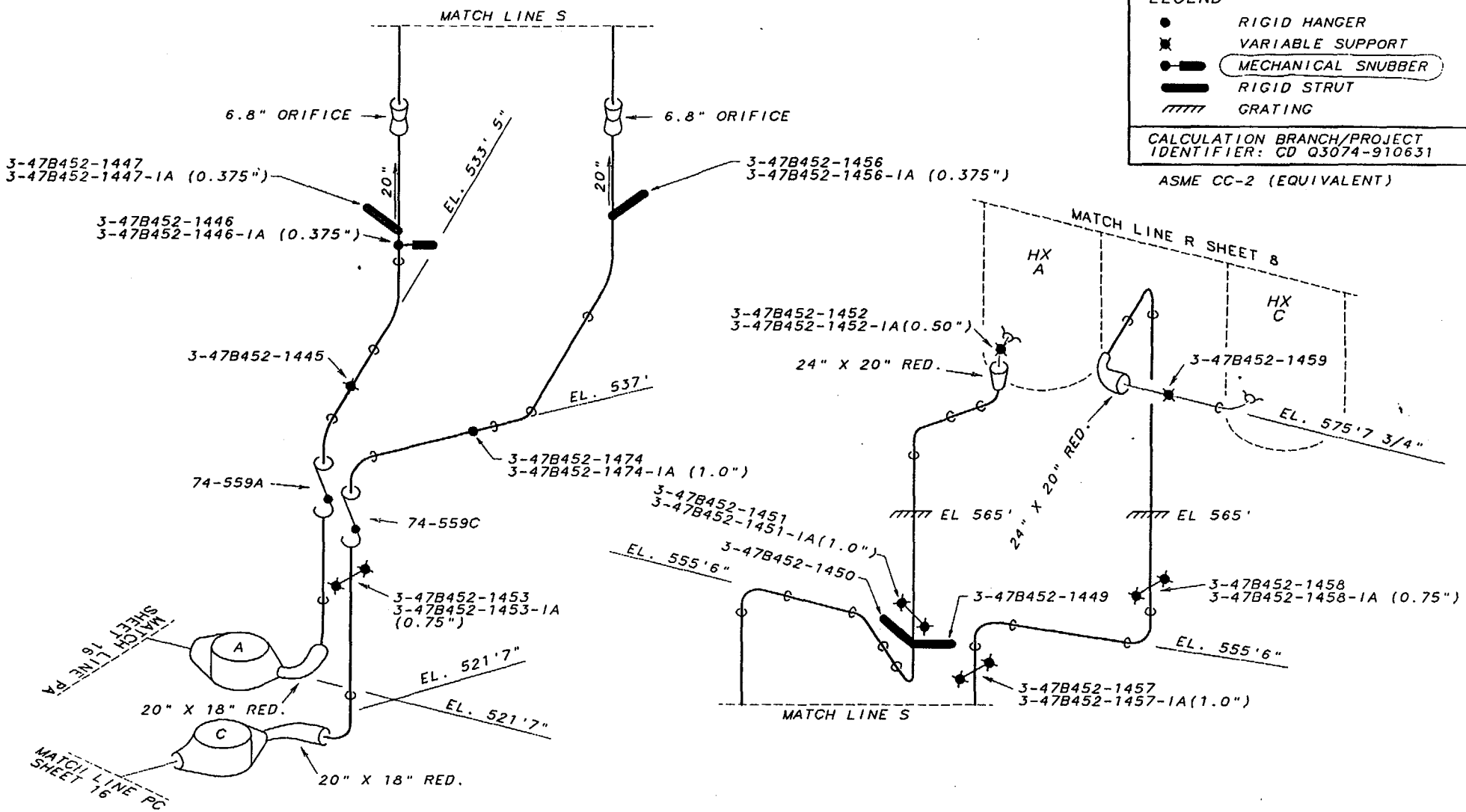
NOTE:
THIS DRAWING SUPERSEDES A [illegible]
OF CHM-2410-C SH. 2

LEGEND

- RIGID HANGER
- VARIABLE SUPPORT
- MECHANICAL SNUBBER
- RIGID STRUT
- GRATING

CALCULATION BRANCH/PROJECT IDENTIFIER: CD Q3074-910631

ASME CC-2 (EQUIVALENT)



REV NO	CHANGE REF	DATE	DFTR	CHKR	DSGN	RVWR	1APPD	2APPD	3APPD	ISSD
002	ADMIN		RDL		N/A		N/A	N/A		
	REVISED PER RIMS MEMO R14 970505 311									

TENNESSEE VALLEY AUTHORITY

S

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 9-23-91	DATE: 9-29-91	SHEET 03 OF 17 SHEET(S)
CHECKED: JH	JES	GLB	DRAWING NO. 3-1S1-0395-C
DATE: 9-20-91			REV 002

THIS DRAWING IS UNDER CONFIGURATION CONTROL

CCD

PCADAM

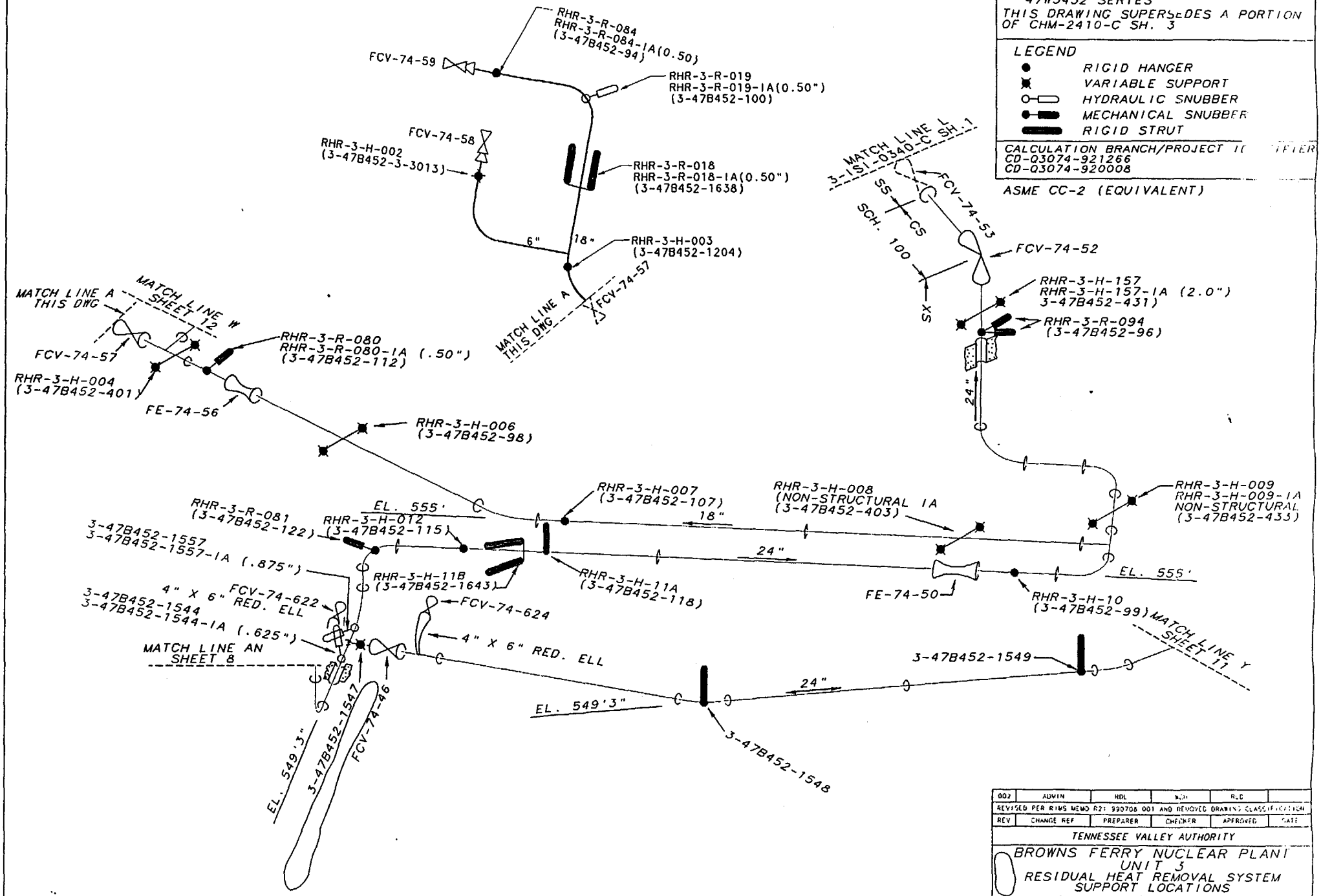
ALL A/D HISTORY RESEARCHED AT R000

REFERENCE DRAWINGS
47W452-212
47W3452 SERIES
THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 3

LEGEND
- RIGID HANGER
- VARIABLE SUPPORT
- HYDRAULIC SNUBBER
- MECHANICAL SNUBBER
- RIGID STRUT

CALCULATION BRANCH/PROJECT ID
CD-Q3074-921266
CD-Q3074-920008

ASME CC-2 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
002	ADMIN	HDL		RLC	
REVISED PER RIMS MEMO R21 990708 001 AND REMOVED DRAWING CLASSIFICATION					

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 12-23-91	DATE: 9-29-91	SHEET 10 OF 17 SHEETS
CHECKED: JA	JES	GLB	DRAWING NO. 3-1SI-0395-C REV 002
DATE: 9-20-91			

CCD

CADAM

ALL A/D HISTORY RESEARCHED • R000

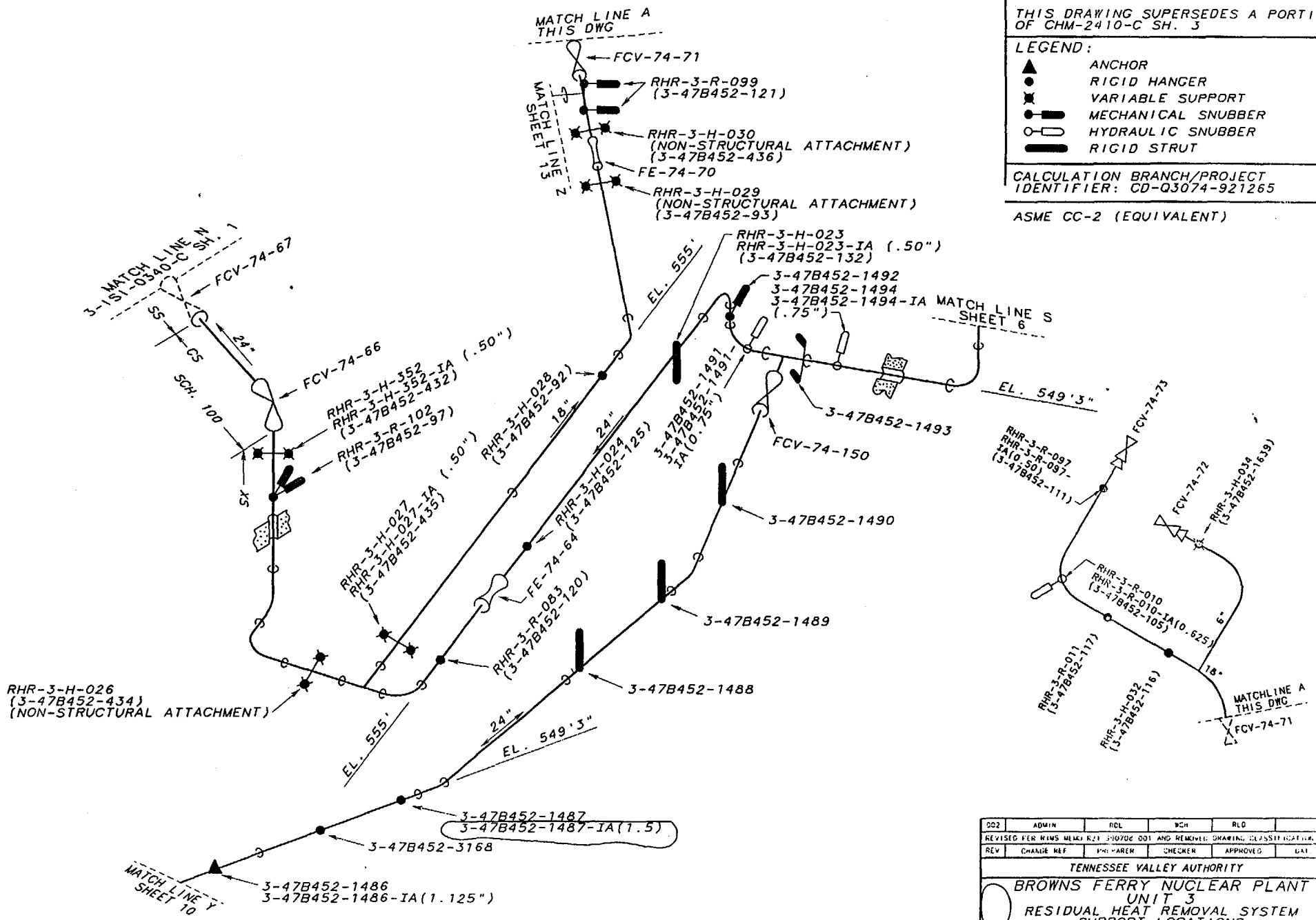
REFERENCE DRAWINGS
47W452-H SERIES
47W3452 SERIES
47W452-211

THIS DRAWING SUPERSEDES A PORTION OF CHM-2410-C SH. 3

LEGEND:
- ANCHOR
- RIGID HANGER
- VARIABLE SUPPORT
- MECHANICAL SNUBBER
- HYDRAULIC SNUBBER
- RIGID STRUT

CALCULATION BRANCH/PROJECT IDENTIFIER: CD-Q3074-921265

ASME CC-2 (EQUIVALENT)



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DAT
002	ADMIN	RCL	WCH	RLO	
REVISED PER RIMS MEMO R21 990706 001 AND REMOVED DRAWING CLASSIFICATION.					

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL SYSTEM
SUPPORT LOCATIONS

DRAWN: PHB	SUBMITTED	APPROVED	SCALE NTS
DATE: 9-11-91	DATE: 9-23-91	DATE: 9-29-91	SHEET 11 OF 17 SHEET(S)
CHECKED: JH	JES	CLB	DRAWING NO. 3-1SI-0395-C
DATE: 9-20-91			REV. 002

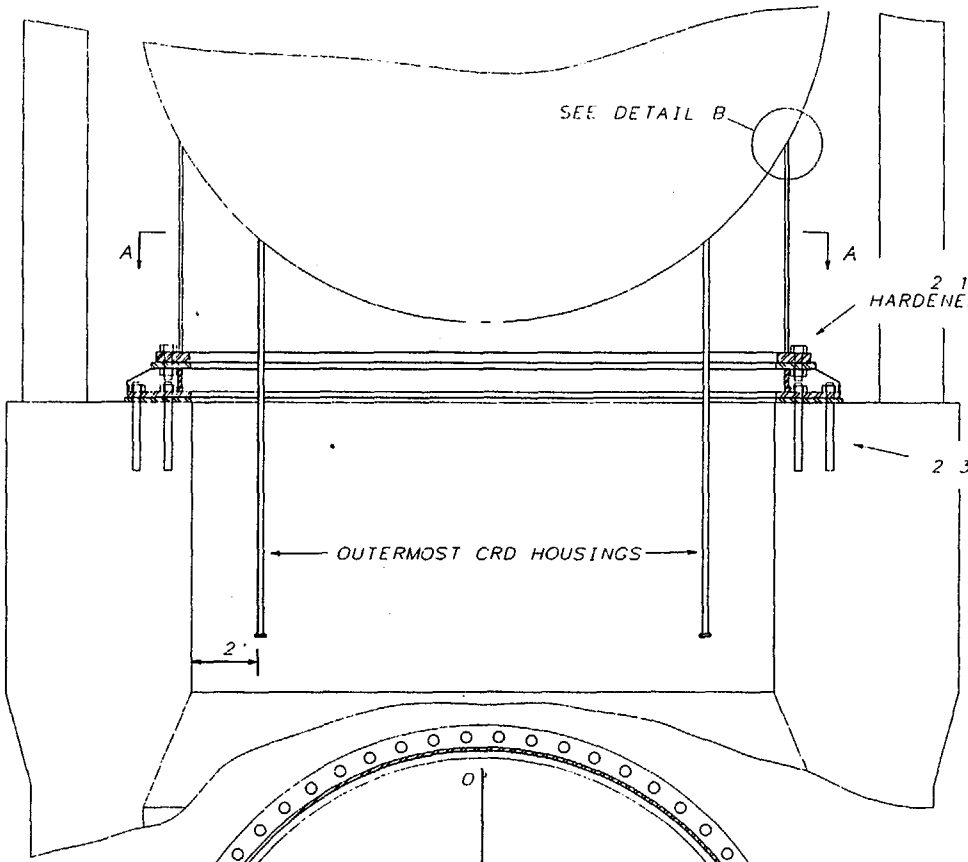
CCD

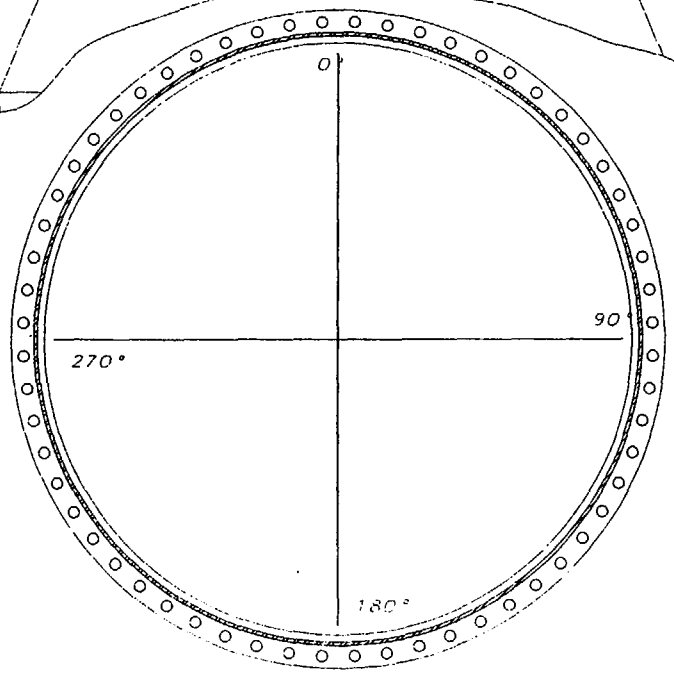
CADAM/PCADAM

ALL A/D HISTORY RESEARCHED AT R000

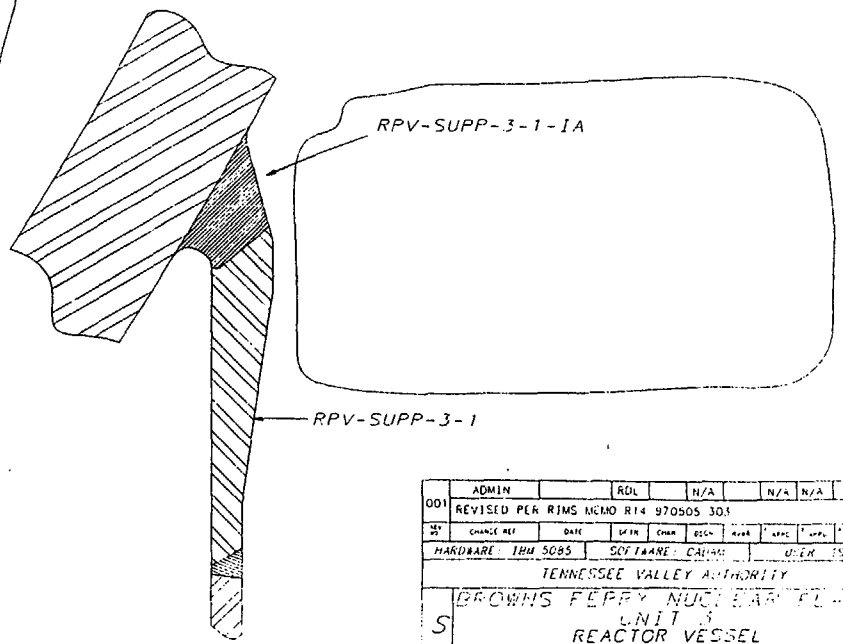
REFERENCE DRAW' S
OPL171.002 FIG.
131850E

ASME CC-1 (EQUIVALENT)





SECTION A-A



DETAIL B
VESSEL TO SKIRT WELD

001	ADMIN		RDL		N/A		N/A	N/A	
	REVISED PER RIMS MEMO R14 970505 303								
NO	CHANGE REF	DATE	DFTN	CHKR	DSGN	ENGR	APPR	APPR	APPR

HARDWARE: THU 5085 SOFTWARE: CAD/AM UNIT: 1

TENNESSEE VALLEY AUTHORITY

S BROWNS FERRY NUCLEAR PLANT
UNIT 3
REACTOR VESSEL
VESSEL SUPPORTS

DRAWN RHG	SUBMITTED	APPROVED	SCALE NTS
DATE	DATE	DATE	SHEET
CHECKED RHG	JES	DLB	DRAWING NO. 1-151-041
DATE			

CCD

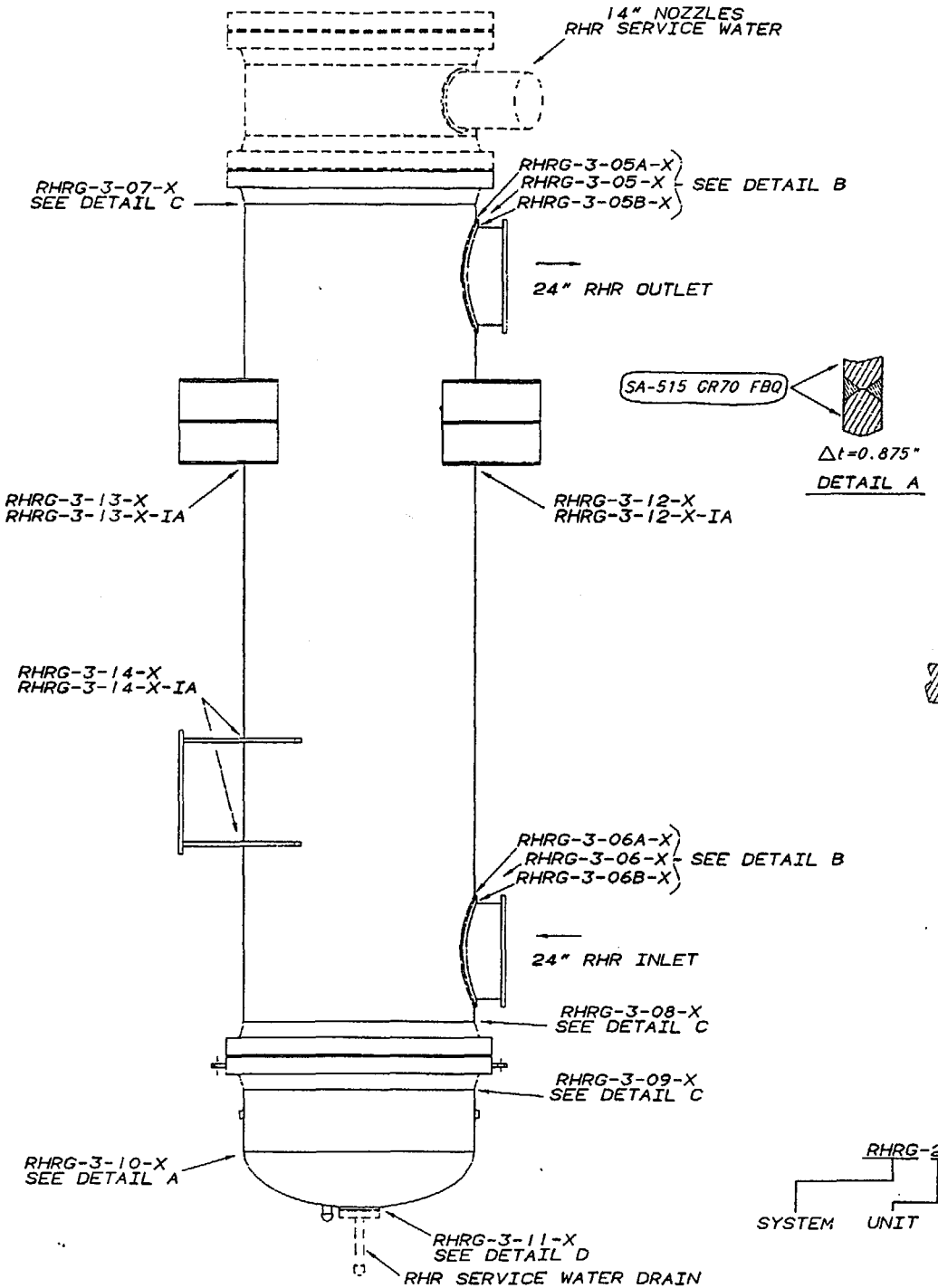
PCADAM

ALL A/D HISTORY RESEARCHED & ROSS

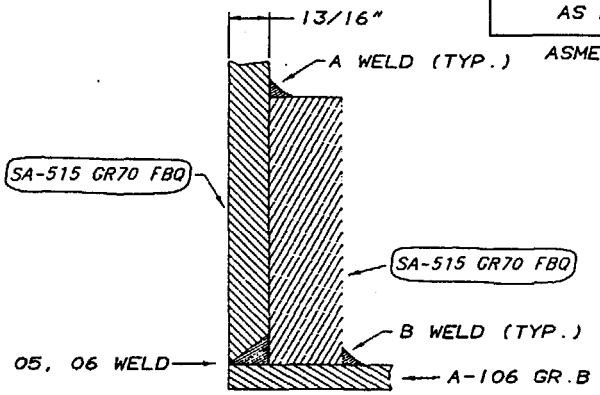
REFERENCE DRAWINGS
69-BF-165 PERFE ORP.
69-D-160-05 PER. CORP.
NOTE: THIS DRAWING SUPERSEDES ISI-0315-B

MATERIAL SPECIFICATIONS
AS NOTED

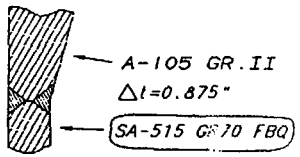
ASME CC-2 (EQUIVALENT)



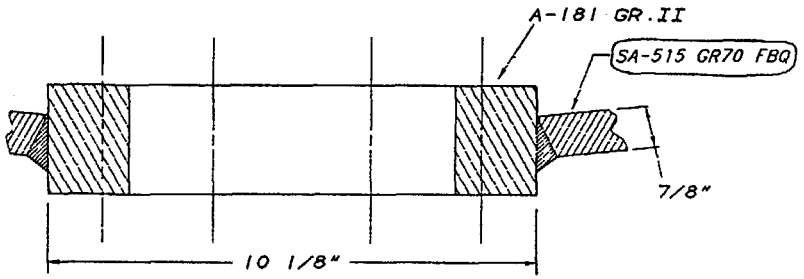
DETAIL A



DETAIL B



DETAIL C



DETAIL D

RHRG-2- -X

SYSTEM UNIT WELD NO. HEAT EXCHANGER LETTER (A,B,C,OR D)

001	ADMIN	RGP	JT	RLD/H	
REVISED FOR RIMS MEMO R21 990604 007. REMOVED DRAWING CLASSIFICATION (ADMINISTRATIVE REVISION)					
REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT
UNIT 3
RESIDUAL HEAT REMOVAL HEAT EXCHANGER
WELD LOCATIONS

DRAWN. PHB	DATE:	SCALE: NTS	CADAM/ISI
CHECKED: RLD	APPROVED:	SHEET 01 OF 01	REV
SUBMITTED: JEE		3-ISI-0422-C	001
		CCD	

PCADAM

ALL A/O HISTORY RESEARCHED AT R000

REFERENCE DRAWI
GE SKETCH SK-B30.
B&W 131836E-6
B&W 131836E-8
GE SKETCH SK-B3022
GE SKETCH SK-B3023

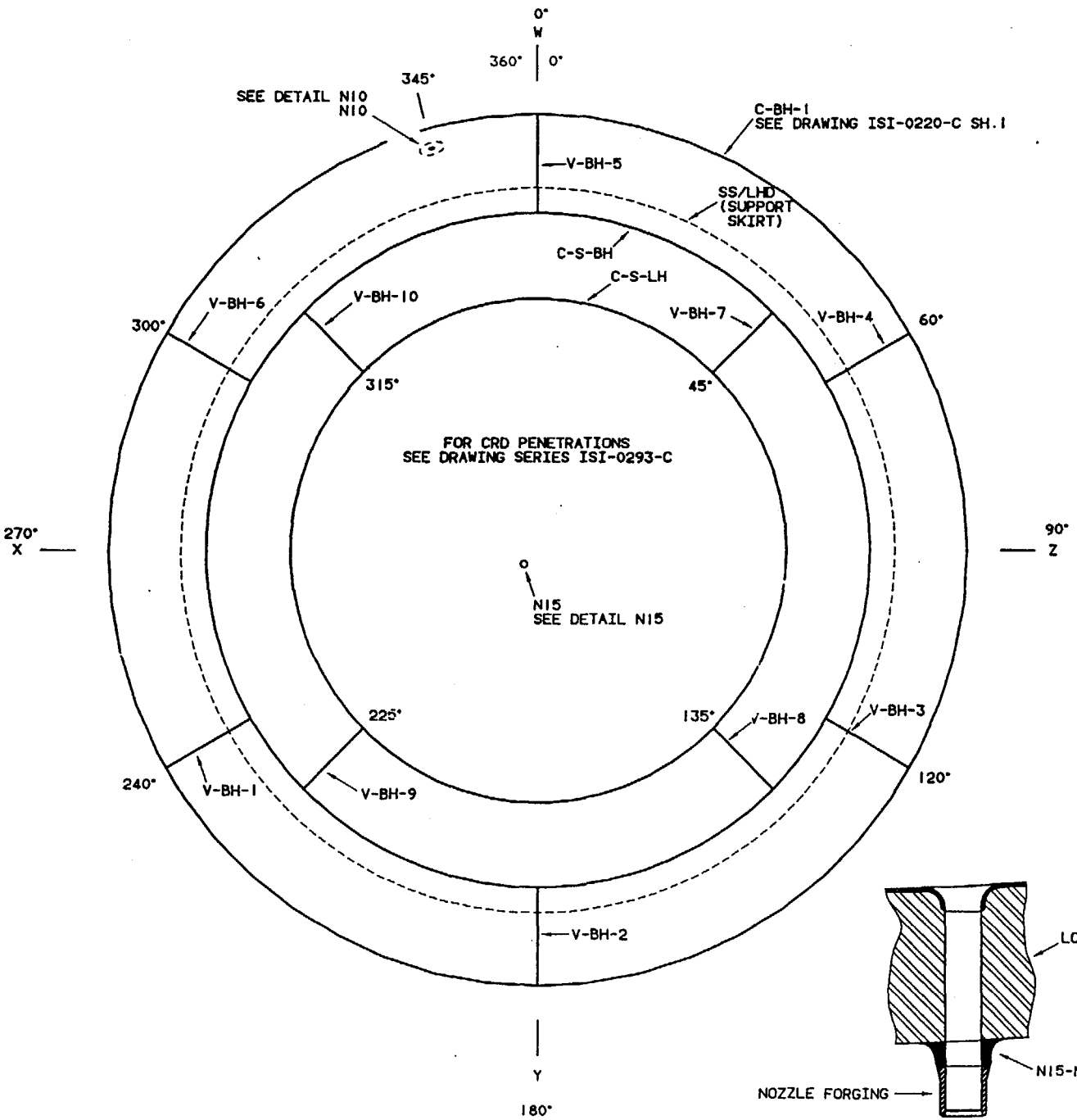
MATERIAL SPECIFICATIONS

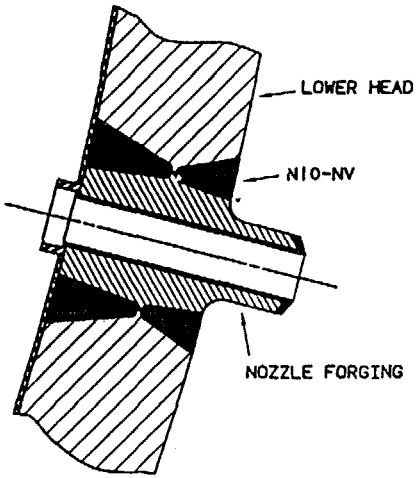
BOTTOM HEAD
CS MN/MO

N10
NOZZLE - A508 CL.2 (MN-MO)

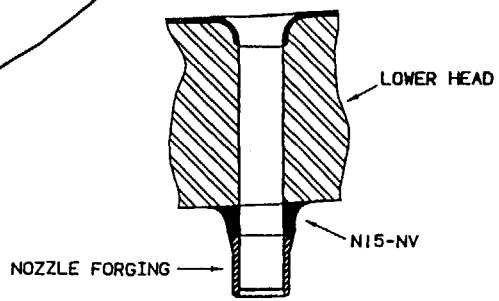
N15
NOZZLE - SA-105

ASME CC-1 (EQUIVALENT)





DETAIL N10



DETAIL N15

REV.	BY	CHECKED	SUBMITTED	APPROVED	DATE

TENNESSEE VALLEY AUTHORITY

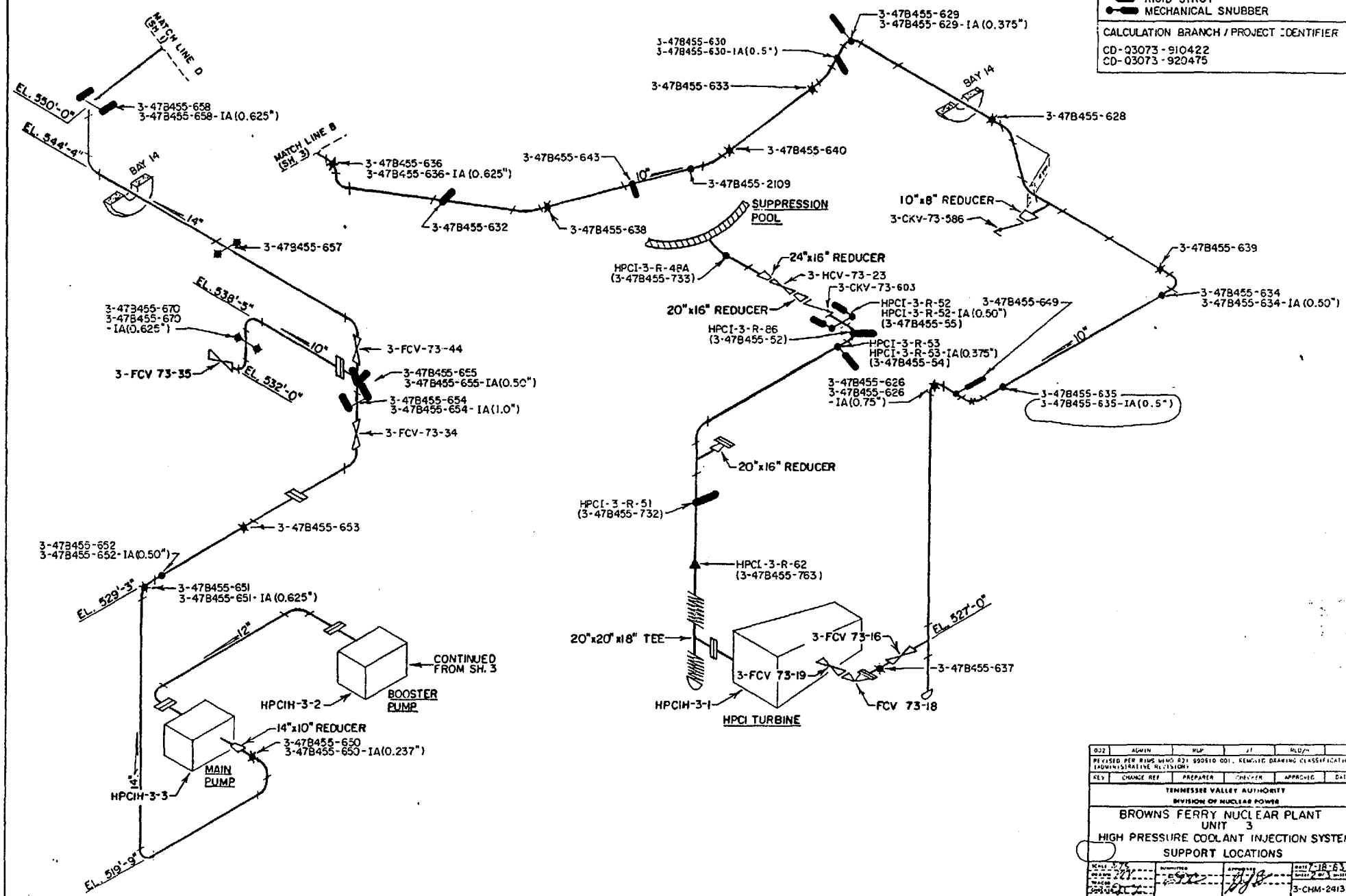
BROWNS FERRY NUCLEAR PLANT
UNIT 3
BOTTOM HEAD ASSEMBLY
WELD LOCTIONS

DRAWN: PHB	DATE: 01/20/94	SCALE: NTS	CADAM/ISI(PM)
CHECKED:	APPROVED:	SHEET 01 OF 01	REV
SUBMITTED:		ISI-0445-C	00

REFERENCE DRAW
47W455-H SERIES
CLASS 2

LEGEND
- ANCHOR
- RIGID HANGER
- VARIABLE HANGER
- RIGID STRUT
- MECHANICAL SNUBBER

CALCULATION BRANCH / PROJECT IDENTIFIER
CD-03073-910422
CD-03073-920475



REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
002	ADMIN	RWP	JT	RWP/-	
PREVISED PER RIMS MEMO 821 890810 001. REMOVED DRAWING CLASSIFICATION (ADMINISTRATIVE REVISION)					

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

BROWNS FERRY NUCLEAR PLANT
UNIT 3
HIGH PRESSURE COOLANT INJECTION SYSTEM
SUPPORT LOCATIONS

DATE 7-18-63
SHEET 2 OF 3 SHEETS
3-CHM-2413-C

CCD R002

PCADAM

ALL A/D HISTORY RESEARCHED @ R000

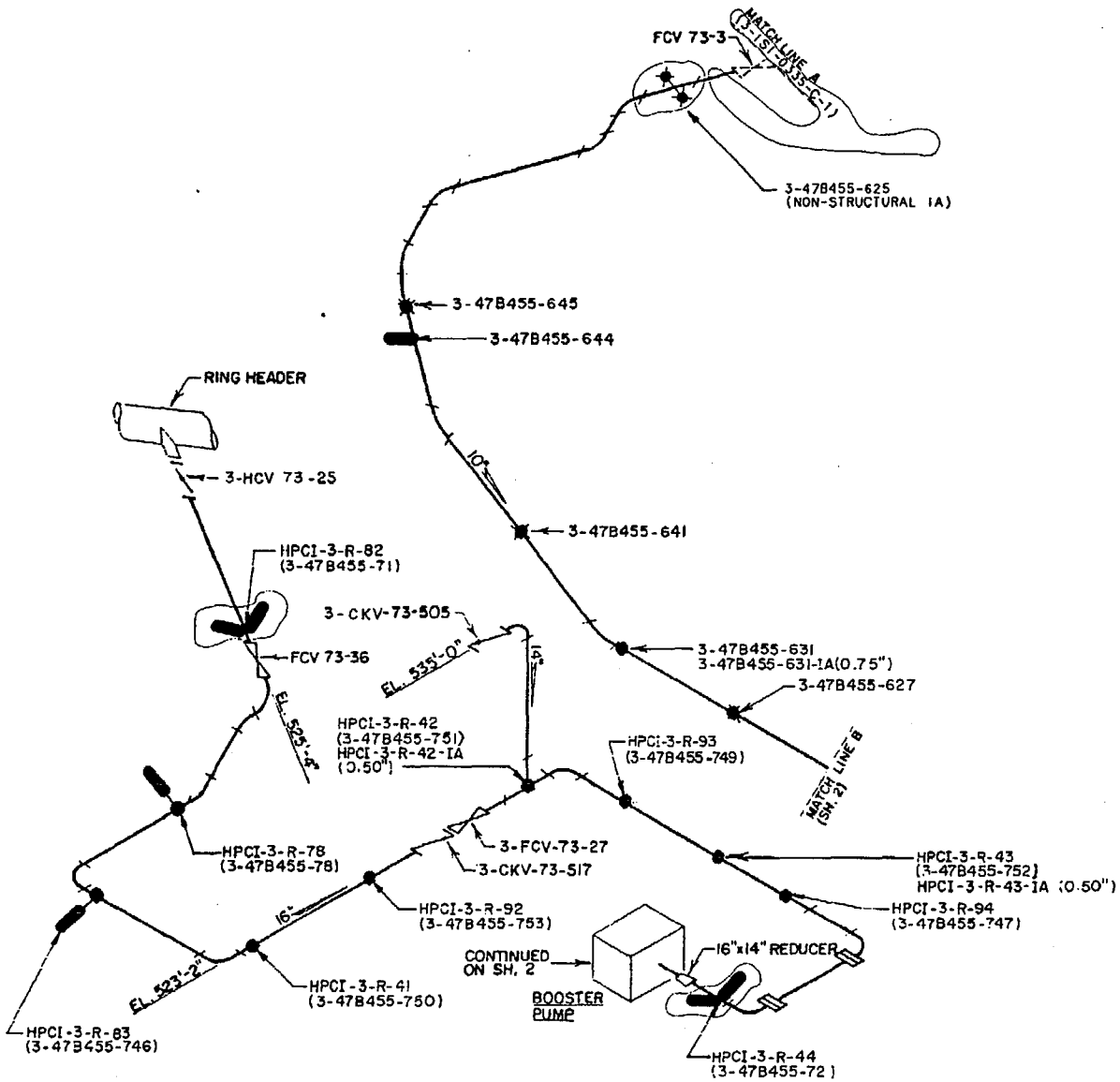
REFERENCE DRA[illegible]S
47W455-H SER

LEGEND:

- ▲ ANCHOR
- VARIBLE HANGER
- ● RIGID HANGER
- RIGID STRUT
- MECHANICAL SNUBBER

CALCULATION BRANCH/PROJECT IDENTIFIER
CD-Q3073-910422

CLASS 2



001	ADMIN		MPT		N/A		N/A	N/A	N/A
	DELETED SUPPORT NUMBER 3-47B455-646 PER RIMS MEMO FOR [illegible] 51017 479 AND REVISED DRAWING REFERENCE TO REFLECT UNITIZATION							
	CCD/ISI	8-10-95	MSO	JK	N/A	[illegible]		
000	ISSUED TO CREATE CCD, SUPERSEDES 2413-C-3 R4; REVISED SUPPORT NUMB MATCH NEW NUMBERS FROM ENGINEERING LEGEND AND REFERENCE CALCULATION(S):							
REV NO	CHANGE REF	DATE	DFTR	CHKR	CCDH	RVWR	APPD	[illegible]

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

BROWNS FERRY NUCLEAR PLANT
UNIT #3
HIGH PRESSURE COOLANT INJECTION SYSTEM

S HANGER LOCATIONS

SCALE NTS | SUBMITTED | APPROVED | DATE 7-15-95
DRAWN DCI | SHEET 3 OF 3 SHEETS
CHECKED | 3-CI-M-2413-C
CODE NC1

CCD R001

PCADAM

ALL A/D HISTORY RESEARCHED @ R000

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Key to computer weld/feature tracking system

A. CYCLE- Refueling Cycle Number and Unit Number
B. SYSTEM- System/Component

CCWS- Closed Cooling Water System (Reactor Building Closed Cooling Water)
CRDS- Control Rod Drive System
CSS- Core Spray System
EECW- Emergency Equipment Cooling Water System
FPCS- Fuel Pool Cooling System
FWS- Feedwater System
HPCIS- High Pressure Coolant Injection System
MSS- Main Steam System
RCICS- Reactor Core Isolation Cooling System
RECIR- Recirculation System
RHRS- Residual Heat Removal System
RHRSW- Residual Heat Removal Service Water System
RPV- Reactor Pressure Vessel
RWCU- Reactor Water Cleanup System

C. Component Number/Identifier

D. Drawing- ISI Drawing Number and sheet number from the Surveillance Instruction (SI-4.6.G)

E. Exreq- ASME Section XI Code year and interval (See Note # 1)

F. Category- Code Category

G. Item Number- Code Item Number

H. Exam Scheduled

I. NDE METH- Nondestructive Examination (NDE) Method

ET- Eddy Current Test
MT- Magnetic Particle Test
PT- Penetrant Test
RT- Radiography Test
UT- Ultrasonic Test
VT- Visual Test

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

J. Calibration Standard- If required

K. Exam Date- Date of Inspection

L. Exam Report No.- Examination Report Number

M. Exam Results - P - Pass
R- Rejectable
E- Evaluated acceptable for continued operation by Engineering

O. COMMENTS

NOTE (1): EXREQ Identifiers:

89E-02 - ASME Section XI Code 1989 Edition/ Second Interval

96E-02 - ASME Section XI Code 1995 Edition, 1996 Addenda

P07-02 - Preservice Examination Cycle 10/ Second Interval

B02-02 - Examinations performed to NUREG-0313 & Generic Letter 88-01 for IGSCC detection

B04-02 - Weld inspection for Pipe Whip Protection

B06-02 - Examinations performed to the recommendation of GE SIL-571

OTI365 - Augmented examinations of RPV Internals

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

APPENDIX VI

SUMMARY OF INDICATIONS

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Summary of Indications

Indications detected during the performance of examinations for Browns Ferry Nuclear Plant Unit 3/Cycle 10 were evaluated in accordance with approved written procedures. Generally, examination results yielded either No Recordable Indications (NRI) or Recordable Indications.

Recordable Indications were evaluated to determine their origin. Indications determined to be of a geometric, metallurgical, or similar origin were typically dispositioned as non-relevant. Indications determined to be of a non-geometric, non-metallurgical, or similar origin were typically dispositioned as relevant. Such indications required additional measures such as further evaluation in accordance with ASME Section XI acceptance standards, engineering analysis, repair, or replacement.

NOI No.	Code Cat.	Component Identifier	Indication Description	Resolution	Additional samples
U3C10-001	F-A	3-47B451H0002	Loose jam nut	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-002	C-B	RHRG-3-06B-B	Linear indication	Cosmetic (No corrective measures required)	Not Required
U3C10-003	F-A	RHRG-3-12-B	Loose Nut	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-004	F-A	RHRG-3-13-B	Loose bolting	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-005	F-A	RHRG-3-14-B	Loose bolting (nuts)	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-008	F-A	3-47B465-483	Jam nut not flush	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-009	B-G-2	RBC-3-1	Leakage at bolted connection mating surface	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-011	F-A	3-47B400-114	loose nut	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-012	F-A	3-47B452-3044	Unable to verify setting	Evaluated Acceptable (No corrective measures required)	Not Required
U3C10-013	F-A	3-47B455-621	Missing jam nut	Evaluated Acceptable (No corrective measures required)	Not Required

There were no unacceptable indications detected.

ADDITIONAL SAMPLES

There were no additional samples required this outage.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ATTACHMENT 1

INTEGRAL ATTACHMENTS EXAMINED IN CYCLE 7 RECEIVE AN ENGINEERING EVALUATION TO INCREASE CODE COVERAGE

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ATTACHMENT 1

INTEGRAL ATTACHMENT WELDS EXAMINED IN CYCLE 7 RECEIVE AN ENGINEERING EVALUATION TO INCREASE CODE COVERAGE.

During the Unit 3 Cycle 7 Refueling Outage in February 1997, three integral attachment welded supports in the Residual Heat Removal (RHR) System received a partial surface examination due to the limited access and/or interference's. The RHR integral attachment welds reported calculated coverage's of 85.2%, 88.9%, and 89.4% each in the Unit 3 Cycle 7 Refueling Outage NIS-1 90 Day ISI Report. In March of 2000, Browns Ferry Nuclear Plant Engineering Civil Design performed a calculation with reduced effective integral attachment weld lengths. This evaluation increased the code coverage to 100%. Reference Engineering Work Request EWR# 00-3-000-005 (RIMS # R21 00000314 001).

COMPONENT ID	CODE COVERAGE CALCULATED FEBRUARY 1997	CODE COVERAGE CALCULATED MARCH 2000	ISI REPORT U3C7
RHR-3-146-IA	88.8%	100%	R-013
3-47B452-1385-IA	89.4%	100%	R-048
3-47B4521451-IA	85.2%	100%	R-018

OWNER: TENNE[illegible]Y AUTHORITY OFFIC[illegible]R POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

ATTACHMENT 2

UNIT 3 CYCLE 10
AUGMENTED EXAMINATION
SUMMARY

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

This section includes augmented examinations performed to comply with NRC or TVA self-imposed requirements. Typical sources include generic letters, IE Bulletins, technical specifications, vendor recommendations, and industry experience. The following summarizes the augmented examinations performed during the Unit 3 Cycle 10 outage and references the corresponding paragraph in 3-SI-4.6.G.

Paragraph 7.11.3 Augmented Examination of Austenitic Stainless Steel and Dissimilar Metal Welds Susceptible to IGSCC (BWRVIP-75)

Austenitic stainless steel and dissimilar metal circumferential welds in piping four inches or larger in nominal pipe diameter which contain reactor coolant at temperatures above 200 degrees F during power operation shall be examined. There was no new IGSCC identified in Cycle 10.

Reference: BWRVIP-75

NUREG-0313 CATEGORY	TOTAL NUMBER OF WELDS	WELDS EXAMINED DURING U3/C10 Outage
A	71	0
B	N/A	N/A
C	79	6
D	2	2
E	10	1*
F	N/A	N/A
G	2	2 (VT-2)

*Category E weld GR-3-63 received a full examination for detection, in addition the known flaw location was examined to determine flaw growth. There were no new flaws and the known flaw remains essentially unchanged.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Paragraph 7.11.4 Reactor Pressure Vessel Interior

Augmented examinations of the RPV interior components are performed in accordance with 0-TI-365, Revision 7, Reactor Pressure Vessel Internals Inspection (RPVII) Units 1, 2 and 3.

Core Spray Downcomer Piping UT Examinations: TOTAL = 20

Downcomer "A": Welds P4A, P4B, P4C, P4D, P5, P5&6, P6&7, P7, P8A&P8B

Downcomer "B": Welds P5, P5&6, P6&7, P7, P8A&P8B

Downcomer "D": Welds P5, P5&6, P7, P8A&P8B

Reference: BWRVIP-18, BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines, EPRI TR-106740

Examination Results: No indications of IGSCC cracking observed.

Core Spray Piping Loop A and B Visual (EVT-1) Examinations: Total = 14

CS-P1-120, CS-P2-120, CS-AP3-118, CS-BP3-122, CS-P1-240, CS-P2-240, CS-CP3-238, CS-DP3-242, CS-AP8a-7.5, CS-AP8b-7.5, CS-AP4d-7.5, Loop A& B welded repair clamp, and CSAD3118-AOI

Reference: BWRVIP-18, BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines, EPRI TR-106740

Examination Results: No indications of IGSCC.

Core Plate Bolts Visual (VT-3) Examinations: Total = 34

CPHDB L-10 (0-90°) 9 bolts, CPHDB L-10 (90-180°) 9 bolts, CPHDB L-10 (180-270°) 8 bolts, CPHDB L-10 (270-360°) 8 bolts

Reference: BWRVIP-25, BWR Core Plate Inspection and Flaw Evaluation Guidelines, EPRI TR-107284.

Examination Results: No Recordable Indications noted.

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UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

Steam Dryer Visual (VT-3) Examination: Total = 3

Weld: SDCW # 2 R, SDCW # 2 H, and SDCW # 2 L

Reference: GE Letter Number BFSE 94-002

Examination Results: No Recordable Indications noted.

Jet Pump Visual (EVT-1) Examinations: Total = 97

JP7-RB-1a	JP8-RS-7	JP3-WD-1	JP4-RB-1d	JP9-DF-1	JP9-RS-6	JP16-IN-4	JP16-RB-1d
JP7-RB-1c	JP8-MX-2	JP4-IN-4	JP4-RB-2b	JP9-WD-1	JP10-RB-1b	JP16-MX-2	JP16-RB-2b
JP7-RB-2a	JP8-DF-1	JP4-MX-2	JP4-RB-2d	JP10-IN-4	JP10-RB-1d	JP16-DF-1	JP16-RB-2d
JP7-B-RS-8	JP5-RB-1a	JP4-DF-1	JP4-D-RS-8	JP10-MX-2	JP10-RB-2b	JP16-WD-1	JP16-H-RS-8
JP7-B-RS-9	JP5-RB-1c	JP4-WD-1	JP4-D-RS-9	JP10-DF-1	JP10-RB-2d	JP15-RB-1a	JP16-H-RS-9
JP7-RS-6	JP6-RB-1b	JP3-RB-1a	JP4-RS-7	JP10-WD-1	JP10-G-RS-8	JP15-RB-1c	JP16-RS-7
JP8-RB-1b	JP6-RB-1d	JP3-RB-1c	JP3 Set Screw SH	JP9-RB-1a	JP10-G-RS-9	JP15-RB-2a	JP3-RB-2c
JP8-RB-1d	JP8-WD-1	JP3-RB-2a	JP3 Set Screw VS	JP9-RB-1c	JP10-RS-7	JP15-RB-2c	JP7-IN-4
JP8-RB-2b	JP7-RB-2c	JP3-D-RS-8	JP4 Set Screw SH	JP9-RB-2a	JP15-IN-4	JP15-H-RS-8	JP7-MX-2
JP8-RB-2d	JP3-IN-4	JP3-D-RS-9	JP4 Set Screw VS	JP9-RB-2c	JP15-MX-2	JP15-H-RS-9	JP7-DF-1
JP8-B-RS-8	JP3-MX-2	JP3-RS-6	JP9-IN-4	JP9-G-RS-8	JP15-DF-1	JP15-RS-6	JP7-WD-1
JP8-B-RS-9	JP3-DF-1	JP4-RB-1b	JP9-MX-2	JP9-G-RS-9	JP15-WD-1	JP16-RB-1b	JP8-IN-4
JP8-RD-1d							

Reference: BWRVIP-41, BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines, EPRI TR-108728.

Examination Results: Jet Pump #4 Restrainer Bracket Assembly the wedge was off center approximately .250" with no visible signs of movement. Acceptable for use, determined to be original installation per GE Report.(RMS W79 020412 001). Recommendation to perform inspection each outage.

Paragraph 7.11.5 Instrument Nozzle Safe-Ends GE SIL-571 Examinations: 1 UT and 7 VT-2

Perform UT and visual inspection of the stainless steel level instrumentation nozzle safe ends and stainless steel core differential pressure/standby liquid control (SLC) nozzle safe ends per the recommendation of SIL-571. The recommendations are to perform a visual leak check of the safe ends during the drywell leak check effort performed each outage. Insulation removal is not necessary to perform the leak check. A UT inspection of the accessible areas of all the safe end base material shall be performed. Per GE Letter No. BFSE 94-005 these stainless steel safe ends should be UT inspected following 15 years of hot operation time and then at a frequency of once every second 24 month fuel cycle or once every third 18 month fuel cycle as applicable.

The implementation interval shall start with the Unit 3 Cycle 5B refueling outage. Leakage inspections shall be performed as described during the Cycle 5B outage and during each subsequent refueling outage. Based on current 16-18 month refueling cycles UT inspection shall be performed during the Cycle 10 refueling outage and then at repeated at every third refueling cycle following Cycle 10. If 24 month refueling cycles are utilized UT inspection shall be performed during the cycle 10 refueling outage and then at every second refueling cycle following cycle 10.

Reference: GE SIL-577, Instrument Nozzle Safe-End Inspection and GE Letter Number BFSE 94-005

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Examination Results: UT examinations of Instrumentation Nozzle Safe-Ends N11A-SE, N11B-SE, N12A-SE, N12B-SE N16A-SE and N16B-SE were deferred to cycle 11for RADCON/ALARA considerations.
N10-SE was examined during cycle 10. No Relevant Indications noted on N10-SE. A VT-2 examination was performed on all seven nozzle safe-ends during the system leakage test and revealed no leakage.

Paragraph 7.11.7 Weld inspection For Pipe Whip Protection

Additional examinations shall be performed each inspection interval on selected circumferential pipe welds to provide additional protection against pipe whip in accordance with TSR 3.4.3.2.
The following welds were ultrasonically examined during the cycle 10 refueling outage to locate evidence of pipe whip:

TSCS-3-424
GFW-3-09
GFW-3-15
KFW-3-38
THPCI-3-070A
GMS-3-06
GMS-3-24
DSRHR-3-04
RWCU-3-001-G016
RWCU-3-001-G017
RWCU-3-001-G018

Examination results: The examinations were acceptable.

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ATTACHMENT 3

IWE-BFN CONTAINMENT INSERVICE INSPECTION PROGRAM

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35609-2000
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Unit: BFN Unit 3
Refueling Outage: U3C10
Period/Interval: Second Period of the First Interval
Code of Record: ASME Section XI, 1992 Edition/1992 Addenda
Program Procedure: 0-TI-376, Revision 3

Summary of Examinations

The records contained within the Unit 3 Cycle 10 Plant Report comprise the Containment Inservice examinations performed to implement the requirements of ASME Section XI Subsection IWE. The examinations are summarized as follows:

Table IWE-2500-1, Examination Category E-A, Containment Surfaces

The General Visual Examination of accessible containment surface areas was completed during U3C10. This examination was performed by procedure 3-TI-173; a copy of the examination is incorporated in the plant report. This completes all examinations required by Code Category E-A Item Number E1.11 for the Second Period. Visual examination of the drywell liner below the moisture seal barrier (MSB) was performed in areas where the MSB was excavated for replacement.

Table IWE-2500-1, Examination Category E-C, Containment Surfaces Requiring Augmented Examination

During U3C10, 100% of the Pressure Suppression Chamber exterior air/water interface area was examined. This is the only area currently identified as an augmented area for BFN Unit 3. This completes 50% of the examinations required by Category E-C Item Number E4.11 for the Second Period.

Table IWE-2500-1, Examination Category E-D, Seals, Gaskets, and Moisture Barriers

A Pre-service VT-3 visual examination was performed on areas where the MSB was repaired. A Request for Relief 2 / 3-CISI-1 was submitted and approved to not perform VT-3 visual examinations on Code Category E-D Item E5.10 (Seals) and Item E5.20 (Gaskets).

Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting

During U3C10, a Pre-service VT-1 visual examination was performed on 208 Drywell Head Flange Washers. 8 of 25 bolted connections (32%) were examined in the first period. These were all the bolted connections that were disassembled.

Table IWE-2500-1, Examination Category E-P, All Pressure Retaining Components

Appendix J Type B testing was completed on Containment Penetration Bellows and Torus Drain Bolted Connection in accordance with the Containment Leak Rate Program and 3-SI-4.7.A.2.g-2/BLa and 3-SI-4.7.A.2.g-3/74h. Appendix J Type B testing was completed on the Drywell Personnel Airlock in accordance with the Containment Leak Rate Program and 3-SR-3.6.1.2.1. Appendix J Type B testing was completed on containment seals and gaskets in accordance with the Containment Leak Rate Program and 3-SI-4.7.A.2.g-2/FHa and 3-SI-4.7.A.2.g-2/ELa.

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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE
SUMMARY REPORT

SUMMARY OF INDICATIONS

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

The information contained in this report is provided in accordance with the requirements of 10CFR50.55a(b)(2)(x)(A), evaluation of inaccessible areas, and 10CFR50.55a(b)(2)(x)(D), evaluation for additional examinations, as they pertain to containment inservice examinations performed during the BFN Unit 3 Cycle 10 refueling outage.

The subject examinations were performed in accordance with ASME Section XI Subsection IWE, 1992 Edition/1992 Addenda. BFN Unit 3 is in the second period of the first examination interval.

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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-002 **Component**: PSC EXT 3-B-2

Condition/Indication: The pipe clamp on pipe support 47A452-808 has made contact with the exterior of the Pressure Suppression Chamber (PSC).

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
The indication consisted of an approximately 2"x 2" area of missing paint caused by the clamp on pipe support 47A452-808 coming in contact with the surface of the PSC. There was no structural damage to the PSC caused by the clamp contact. Examination of the area revealed only damage to the coating of the PSC.

(2) Evaluation of each area, and the result of the evaluation:
There was no structural damage to the PSC caused by the contact of this clamp. The subject clamp is not in contact with the surface of the PSC. The contact between the PSC and the pipe clamp on this abandoned portion of the Residual Heat Removal system will be corrected by BFPER 02-003131-000.

(3) Description of necessary corrective actions:
The condition documented by NOI U3C10-007 is the result of a voluntary examination. The condition of the pipe clamp contacting the PSC is an isolated instance and will be corrected by BFPER 02-003131-000. Therefore, no adverse condition exists that may be present in an inaccessible area.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
The indication consisted of an approximately 2"x 2" area of missing paint caused by the clamp on pipe support 47A452-808 coming in contact with the surface of the PSC. There was no structural damage to the PSC caused by the clamp contact. Examination of the area revealed only damage to the coating of the PSC.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:
There was no structural damage to the PSC caused by the contact of this clamp. The subject clamp is not in contact with the surface of the PSC. The contact between the PSC and the pipe clamp on this abandoned portion of the Residual Heat Removal system will be corrected by BFPER 02-003131-000

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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(3) A description of the necessary corrective actions:
The condition documented by NOI U3C10-007 is the result of a voluntary examination. The condition of the pipe clamp contacting the PSC is an isolated instance and will be corrected by BFPER 02-003131-000.

4) The number and type of additional examinations to ensure detection of similar degradation in similar components:
No additional examinations warranted.

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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No's: CISI-310-7 through CISI-310-22 **Components**: PSC EXT-3-B-1 through 3-B-16

Condition/Indication: Randomly chipped areas. Light rust on coated and non-coated surfaces. Random dings and scratches.

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
Random chipping, light rust, dings and scratches in various locations on the exterior surface of the suppression chamber. The conditions noted are expected conditions based on the age and service life of the containment.

(2) Evaluation of each area, and the result of the evaluation:
There is no degradation that affects the structural integrity or containment function of the vessel. The base metal condition is good with no notable corrosion or wall loss.

(3) Description of necessary corrective actions:
The subject indications have been evaluated for continued service without repair. Therefore, no adverse condition exist that may be present in an inaccessible area.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
Random chipping, light rust, dings and scratches in various locations on the exterior surface of the suppression chamber. The conditions noted are expected conditions based on the age and service life of the containment.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:
The subject indications have been evaluated for continued service without repair. The conditions noted are expected conditions based on the age and service life of the containment.

(3) A description of the necessary corrective actions:
None of the deficiencies noted affect the structural integrity or leak tightness of the containment. These deficiencies will be addressed by BFNPER 02-003109-000.

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:
NOI U3C10-006 is the result of voluntary VT-1 examinations performed in areas where coating and irregularities were noted in 3-TI-173 and 0-TI-417. Therefore, additional examinations are not warranted.

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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-023 through CISI-310-032 **Component**: DW LNR-3-1A

Condition/Indication: Discoloration , rust and pitting.

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
NOI U3C10-010 documents indications noted during the VT-3 examination of the steel containment vessel surface in areas where the moisture seal barrier has been excavated for replacement. This examination was performed to determine the condition of the surface in this normally inaccessible area.

(2) Evaluation of each area, and the result of the evaluation:
The subject indications have been evaluated to be acceptable. There is no degradation which affects the structural integrity or containment function of the steel containment vessel.

(3) Description of necessary corrective actions:
The conditions noted are expected conditions with respect to the age and service conditions of the component. The Moisture Seal Barrier (MSB) has been examined and defective portions are being replaced. Therefore, no adverse condition exist which may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
NOI U3C10-010 documents indications noted during the VT-3 examination of the steel containment vessel surface in areas where the moisture seal barrier has been excavated for replacement. The examination was performed to determine the condition of the surface in this normally inaccessible area.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:
The subject indications have been evaluated to be acceptable. There is no degradation which affects the structural integrity or containment function of the steel containment vessel.

(3) A description of the necessary corrective actions:
The condition documented is not considered to be a defective condition with respect to the containment vessel. The condition of moisture intrusion into this area is being corrected by repair of the MSB.

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:
The condition of moisture intrusion into this area is being corrected by repair of the MSB. Therefore, additional examinations are not warranted.

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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-034 **Component**: DW LNR-3-4

Condition/Indication: Paint cracked on penetration weld (3-X-16B)

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
A crack in the coating at drywell penetration 3-X-16B weld was identified during the performance of the General Visual inspection (3-TI-173). This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) Evaluation of each area, and the result of the evaluation:
The indication noted consisted of a crack of the applied coating on the penetration weld. The coating was removed and the exposed liner surface and weld in this area was inspected and is in good condition with no reportable conditions.

(3) Description of necessary corrective actions:
There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component. Therefore, no adverse condition exists that may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
A crack in the coating at drywell penetration 3-X-16B weld was identified during the performance of the General Visual inspection (3-TI-173). This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:

There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component.

(3) A description of the necessary corrective actions:

Areas of coating failure (e.g., delamination, peeling , etc.) were scraped back until proper coating adhesion (sound coating) was obtained. In areas where the topcoat has been scraped back to sound coating, the zinc primer is intact and will provide corrosion protection for the primary containment boundary. Re-coating will be done in accordance with MAI-5.3 during future outage maintenance work.

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-035 **Component**: DW LNR 3-3

Condition/Indication: Damage areas to the Drywell Interior Liner surface.

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
Several small gouges in the primary containment liner and scratches in the coating. The damage was caused by an HVAC supply duct which ruptured and then the debris repeatedly struck the liner surface due to air flow in the duct. The cause of the duct rupture is unknown. The condition resulted in fretting of the liner surface.

(2) Evaluation of each area, and the result of the evaluation:
The data collected (mechanical dimensions on gouges and thickness measurements on liner) dated 4/3/02 has been evaluated and found to be acceptable. The evaluation is documented in calculation CD-Q0999-970114.

(3) Description of necessary corrective actions:
The gouges in the steel liner have been blended out and the base metal re-coated. The damage to the liner has been evaluated by calculation CD-Q0999-970114 which concluded that the condition is acceptable without weld repair.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
Several small gouges in the primary containment liner and scratches in the coating. The damage was caused by an HVAC supply duct which ruptured and then the debris repeatedly struck the liner surface due to air flow in the duct. The cause of the duct rupture is unknown. The condition resulted in fretting of the liner surface.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:
The data collected (mechanical dimensions on gouges and thickness measurements on liner) dated 4/3/02 has been evaluated and found to be acceptable. The evaluation is documented in calculation CD-Q0999-970114.

(3) A description of the necessary corrective actions:
The gouges in the steel liner have been blended out and the base metal re-coated. The damage to the liner has been evaluated by calculation CD-Q0999-970114 which concluded that the condition is acceptable without weld repair.

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BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

Engineering personnel inspected the remaining HVAC duct work with similar design configuration and determined that no other similar damage has occurred. No further corrective actions are required.

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NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-036 **Component**: DW LNR 3-6

Condition/Indication: Areas flaking or delamination

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:

NOI U3C10-016 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) Evaluation of each area, and the result of the evaluation:

The exposed liner surface in these areas has been inspected after coating removal and is in good condition with no reportable conditions. There is no degradation that affects the structural integrity or leak tightness of the containment vessel.

(3) Description of necessary corrective actions:

There is no degradation that affects the structural integrity or leak tightness of the containment vessel. The conditions noted are expected based on the age and service conditions of the component. Therefore, no adverse condition exists that may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:

NOI U3C10-016 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:

There is no degradation that affects the structural integrity or leak tightness of the containment vessel. The conditions noted are expected based on the age and service conditions of the component.

(3) A description of the necessary corrective actions:

Areas of coating failure (e.g., delamination, peeling , etc.) were scraped back until proper coating adhesion (sound coating) was obtained. In areas where the topcoat has been scraped back to sound coating, the zinc primer is intact and will provide corrosion protection for the primary containment boundary. Re-coating will be done in accordance with MAI-5.3 during future outage maintenance work.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-037 **Component**: DW LNR-3-5

Condition/Indication: Areas flaking or delamination

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:

NOI U3C10-017 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) Evaluation of each area, and the result of the evaluation:

The exposed liner surface in these areas has been inspected after coating removal and is in good condition with no reportable conditions. There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel.

(3) Description of necessary corrective actions:

There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component. Therefore, no adverse condition exists that may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:

NOI U3C10-017 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:

There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component.

(3) A description of the necessary corrective actions:

Areas of coating failure (e.g., delamination, peeling , etc.) were scraped back until proper coating adhesion (sound coating) was obtained. In areas where the topcoat has been scraped back to sound coating, the zinc primer is intact and will provide corrosion protection for the primary containment boundary. Re-coating will be done in accordance with MAI-5.3 during future outage maintenance work.

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-038 **Component:** DW LNR 3-4

Condition/Indication: Areas flaking or delamination

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:
NOI U3C10-018 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) Evaluation of each area, and the result of the evaluation:
The exposed liner surface in these areas has been inspected after coating removal and is in good condition with no reportable conditions. There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel.

(3) Description of necessary corrective actions:
There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component. Therefore, no adverse condition exists that may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:
NOI U3C10-018 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:
There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component.

(3) A description of the necessary corrective actions:
Areas of coating failure (e.g., delamination, peeling , etc.) were scraped back until proper coating adhesion (sound coating) was obtained. In areas where the topcoat has been scraped back to sound coating, the zinc primer is intact and will provide corrosion protection for the primary containment boundary. Re-coating will be done in accordance with MAI-5.3 during future outage maintenance work.

TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602

UNIT: THREE CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.

COMMERCIAL SERVICE DATE: MARCH 1, 1977

NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

Report No: CISI-310-039 **Component**: DW LNR 3-3

Condition/Indication: Areas flaking or delamination

EVALUATION OF INACCESSIBLE AREAS 10CFR50.55a(b)(2)(x)(A)

(1) Description of the type and estimated extent of degradation, and the conditions that led to the degradation:

NOI U3C10-019 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) Evaluation of each area, and the result of the evaluation:

The exposed liner surface in these areas has been inspected after coating removal and is in good condition with no reportable conditions. There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel.

(3) Description of necessary corrective actions:

There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component. Therefore, no adverse condition exists that may be present in inaccessible areas.

ADDITIONAL EXAMINATIONS 10CFR 50.55a(b)(2)(x)(D)

(1) Description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation:

NOI U3C10-019 documents indications noted during the VT-3 examination of the containment vessel surface in areas identified for coating removal. The indications noted consist of areas of flaking or delaminating of the applied coating. This examination was performed to satisfy the requirements of IWE 2500(b), examination of coatings prior to removal.

(2) The acceptability of each flaw or area, and the need for additional examinations to verify that similar degradation does not exist in similar components:

There is no degradation that affects the structural integrity or leak tightness of the steel containment vessel. The conditions noted are expected based on the age and service conditions of the component.

(3) A description of the necessary corrective actions:

Areas of coating failure (e.g., delamination, peeling , etc.) were scraped back until proper coating adhesion (sound coating) was obtained. In areas where the topcoat has been scraped back to sound coating, the zinc primer is intact and will provide corrosion protection for the primary containment boundary. Re-coating will be done in accordance with MAI-5.3 during future outage maintenance work.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT: BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

OWNER: TENNESSEE VALLEY AUTHORITY OFFICE OF NUCLEAR POWER 1101 MARKET STREET CHATTANOOGA, TENNESSEE 37402	PLANT BROWNS FERRY NUCLEAR PLANT P.O. BOX 2000 DECATUR, ALABAMA 35602
UNIT: THREE	CERTIFICATE OF AUTHORIZATION: NOT REQUIRED.
COMMERCIAL SERVICE DATE: MARCH 1, 1977	
NATIONAL BOARD NUMBER FOR UNIT: NOT REQUIRED.	

BFN CONTAINMENT INSERVICE INSPECTION PROGRAM U3C10 REFUELING OUTAGE SUMMARY REPORT

(4) The number and type of additional examinations to ensure detection of similar degradation in similar components:

The condition documented is not considered to be a defective condition with respect to the steel containment vessel. The condition has been addressed by removal of the coating and examination of liner in the affected areas. Therefore, additional examinations are not warranted.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 3
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME),
SECTION XI, REPAIR AND REPLACEMENTS PROGRAM

SUMMARY REPORT (NIS-2) FOR CYCLE 10 OPERATION

(SEE ATTACHED)

BROWNS FERRY

NUCLEAR PLANT

UNIT 3 CYCLE 10

ASME SECTION XI

NIS-2 DATA REPORT

OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

APPENDIX I _____ **Summary of Repair and Replacement Activities**

APPENDIX II _____ **Form NIS-2 Owner's Report For Repairs or Replacements**

Owner:	TENNESSEE VALLEY AUTHORITY 1101 Market Street Chattanooga, TN 37402-2801	Plant:	Browns Ferry Nuclear Plant P. O. Box 2000 Decatur, AL 35609-2000
Unit:	Three	Certificate of Authorization:	Not Required
Commercial Service Date:	March 1, 1977		
National Board Number for Unit:	Not Required		

APPENDIX I

SUMMARY OF REPAIR AND REPLACEMENT ACTIVITIES

Owner: TENNESSEE VALLEY AUTHORITY
1101 Market Street
Chattanooga, TN 37402-2801

Plant: Browns Ferry Nuclear Plant
P. O. Box 2000
Decatur, AL 35609-2000

Unit: Three

Certificate of Authorization: Not Required

Commercial Service Date: March 1, 1977

National Board Number for Unit: Not Required

WID	SYS	ORG	CLASS	ACTIVITY
00-004454-000	1	MAINT	2	REPAIR
95-022749-001	75	MAINT	2	REPLACEMENT
01-005329-000	3	MAINT	1	REPLACEMENT
01-005496-000			1	
01-005497-000			1	
01-005498-000			1	
01-005499-000			1	
01-005500-000			1	
00-004415-000	74	MAINT	2	REPLACEMENT
01-005376-000			2	
01-005386-000			2	
01-005388-000			2	
01-005505-000			2	
01-005502-000	75	MAINT	1	REPLACEMENT
01-005504-000			1	
99-006554-000	1	MAINT	1	REPLACEMENT
01-007381-000			1	
01-007370-000	1	MAINT	2	REPLACEMENT
02-003703-000			2	
02-003225-000	69	MAINT	1	REPLACEMENT
02-003382-000			1	
01-008132-000	73	MAINT	2	REPLACEMENT

Owner: TENNESSEE VALLEY AUTHORITY
1101 Market Street
Chattanooga, TN 37402-2801

Plant: Browns Ferry Nuclear Plant
P. O. Box 2000
Decatur, AL 35609-2000

Unit: Three

Certificate of Authorization: Not Required

Commercial Service Date: March 1, 1977

National Board Number for Unit: Not Required

WID	SYS	ORG	CLASS	ACTIVITY
01-008135-000	71	MAINT	2	REPLACEMENT
99-003420-000	63	MAINT	2	REPLACEMENT
T40978 98-014466-000	77	TVA	2	REPLACEMENT
02-002122-000	74	MAINT	2	REPAIR
00-003996-000	3	MAINT	1	REPLACEMENT
50729A 01-005501-001 01-005501-002 01-005501-005	85	TVA	2	REPLACEMENT
50287A 01-012431-000	73	TVA	2	REPLACEMENT

NIS-2 OWNER'S REPORT FROM U3C9				
99-010016-000 99-010069-000	69	MAINT	1 1	REPLACEMENT

Owner:	TENNESSEE VALLEY AUTHORITY 1101 Market Street Chattanooga, TN 37402-2801	Plant:	Browns Ferry Nuclear Plant P. O. Box 2000 Decatur, AL 35609-2000
Unit:	Three	Certificate of Authorization:	Not Required
Commercial Service Date:	March 1, 1977		
National Board Number for Unit:	Not Required		

LEGEND

WID - Work Implementing Document

Example: A99999A or 50000A refers to a Design Change Notice
99-999999-999 refers to a Work Order

SYS- System

1 - Main Steam
3 - Reactor Feedwater
8 - Turbine Drains
10 - Reactor Drains, Vents and Blowdown
63 - Standby Liquid Control
68 - Reactor Water Recirculation
69 - Reactor Water Cleanup
71 - Reactor Core Isolation Cooling
73 - High Pressure Coolant Injection
74 - Residual Heat Removal
75 - Core Spray
85 - Control Rod Drive
92 - Neutron Monitoring

ORG - Organization which performed the WID

MAINT - TVA's Maintenance Organization
GE - General Electric Company
TVA - Work performed by Stone and Webster Engineering Corporation utilizing TVA's Quality Assurance Program and procedures

CLASS - Refers to ASME Code Class 1 or 2

ACTIVITY - Classifies work activity as being repair or replacement as denoted on NIS-2 Form

Owner:	TENNESSEE VALLEY AUTHORITY 1101 Market Street Chattanooga, TN 37402-2801	Plant:	Browns Ferry Nuclear Plant P. O. Box 2000 Decatur, AL 35609-2000
Unit:	Three	Certificate of Authorization:	Not Required
Commercial Service Date:	March 1, 1977		
National Board Number for Unit:	Not Required		

APPENDIX II

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
   1101 Market Street
   Chattanooga, TN 37402-2801 (Address)

   Date January 26, 2001

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Unit 3

   Work Order (WO) 00-004454-000
   Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 001, Main Steam System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Main Steam piping	Installed by TVA	N/A	N/A	1" Main Steam piping to 3-PT-001-0016B	N/A	Repaired	No

7. Description of Work Repaired indication in weld.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Design Criteria BFN-50-7001 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Repaired indication in toe of weld.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 2-27, 20 01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBI & I of HARTFORD, CT have inspected the components described in this Owner's Report during the period 5/4/00 to 5/5/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions TN 3135 IB SNA

Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 27 2001

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date August 23, 2000

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3 SCW 4/25/02 A1/6/25/02

   Work Order (WO) 95-0227494-001 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 075, Core Spray System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
3A Core Spray Pump Suction Drain Valve	Powell	N/A	N/A	3-SHV-075-0512A	N/A	~~Repaired~~ Replacement SCW 4/25/02 A1/6/25/02	No

7. Description of Work Replaced two body to bonnet studs and nuts.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Design Criteria BFN-50-7075 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced two body to bonnet studs and nuts because of inadequate thread engagement.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Willard, System Engineer (Owner or Owner's Designee, Title) Date 8-23, 20 00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of HARTFORD TENN. and employed by HARTFORD STEAM BOILER of HARTFORD, CT have inspected the components described in this Owner's Report during the period 8-14-00 to 8-18-00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

9/23/00

Albert Todd (Inspector's Signature) Commissions TN 3135 I B S N A (National Board, State, Province, and Endorsements)

Date Sept. 23 2000

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date May 14, 2002

   Sheet 1 of 2

2. Plant Browns Ferry Nuclear Plant (BFN)
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3

   Work Orders (WO) 01-005329-000, 01-005496-000, 01-005497-000, 01-005498-000, 01-005499-000 and 01-005500-000 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 003, Reactor Feedwater System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Support (Snubber) 3-47B415-25 Attachment pins	Bergen-Paterson	Serial No. 18039	N/A	3-SNUB-003-5021	N/A	Replaced pins	No
Support (Snubber) 3-47B415-21	Bergen-Paterson	TVA Serial No. M0042	N/A	3-SNUB-003-5017	N/A	Replaced	No
Support (Snubber) 3-47B415-21	Bergen-Paterson	TVA Serial No. M0468	N/A	3-SNUB-003-5017	N/A	Replacement	No
Component listing continued on Sheet 2							

7. Description of Work Replaced the attachment pins on 3-SNUB-003-5021 (snubber was not replaced).
   Replaced the remainder of the snubbers with like-for-like replacements.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ ** See Remarks

   Other ☒** Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contract 68C37-91602 and Design Criteria BFN-50-7003 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks WO 01-005329-000 (3-SNUB-003-5021)

Applicable Manufacturer's Data Reports to be attached

Attachment pin replacement. The original snubber (SN 18039) was removed, functionally tested and returned to the same location.

WO 01-005496-000 (3-SNUB-003-5017)

The original snubber (TVA S/N M0042) was removed due to 10 percent sample per snubber test program and stored as a spare.

The replacement snubber (TVA S/N M0468) was previously removed from 2-47B415S0014 (2-SNUB-003-5029), under WO 00-004854-000 and kept as a spare.

The replacement snubber (TVA S/N M0468) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Williams, System Engineer (Owner or Owner's Designee, Title) Date 5/17, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 2-6-02 to 3-30-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Albert Tabb (Inspector's Signature) Commissions "I" "B" "S" "N" "A" TN 3135 (National Board, State, Province, and Endorsements)

Date May 30 20 02

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
SUPPLEMENTAL SHEET

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 14, 2002

Sheet 2 of 2

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Orders (WO) 01-005329-000, 01-005496-000, 01-005497-000, 01-005498-000, 01-005499-000 and 01-005500-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System *System 003, Reactor Feedwater System*

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Support (Snubber) 3-47B415-22	Bergen-Paterson	TVA Serial No. M0279	N/A	3-SNUB-003-5018	N/A	Replaced	No
Support (Snubber) 3-47B415-22	Bergen-Paterson	TVA Serial No. M0186	N/A	3-SNUB-003-5018	N/A	Replacement	No
Support (Snubber) 3-47B415-59	Bergen-Paterson	TVA Serial No. M0334	N/A	3-SNUB-003-5025	N/A	Replaced	No
Support (Snubber) 3-47B415-59	Bergen-Paterson	TVA Serial No. M0439	N/A	3-SNUB-003-5025	N/A	Replacement	No
Support (Snubber) 3-47B415-24	Bergen-Paterson	TVA Serial No. M0156	N/A	3-SNUB-003-5020	N/A	Replaced	No
Support (Snubber) 3-47B415-24	Bergen-Paterson	TVA Serial No. M0289	N/A	3-SNUB-003-5020	N/A	Replacement	No
Support (Snubber) 3-47B415-23	Bergen-Paterson	TVA Serial No. M0058	N/A	3-SNUB-003-5019	N/A	Replaced	No
Support (Snubber) 3-47B415-23	Bergen-Paterson	TVA Serial No. M0478	N/A	3-SNUB-003-5019	N/A	Replacement	No

FORM NIS-2, SUPPLEMENTAL SHEET (Back)

9. Remarks WO 01-005497-000 (3-SNUB-003-5018)

The original snubber (TVA S/N M0279) was removed due to 10 percent sample per snubber test program and stored as a spare.

The replacement snubber (TVA S/N M0186) was previously located in 2-47B415S0001 (2-SNUB-003-5015),

removed by WO 00-005306-000 and kept as a spare.

The replacement snubber (TVA S/N M0186) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005498-000 (3-SNUB-003-5025)

The original snubber (TVA S/N M0334) was removed due to 10 percent sample per snubber test program and stored as a spare.

The replacement snubber (TVA S/N M0439) was previously located in 2-47B415S0003 (2-SNUB-003-5017),

removed by WO 00-005273-000 and kept as a spare.

The replacement snubber (TVA S/N M0186) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005499-000 (3-SNUB-003-5020)

The original snubber (TVA S/N M0156) was removed due to 10 percent sample per snubber test program and stored as a spare.

The replacement snubber (TVA S/N M0289) was previously located in 2-47B452R0053N (2-SNUB-074-5015),

removed by WO 00-005309-000 and kept as a spare.

The replacement snubber (TVA S/N M0186) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005500-000 (3-SNUB-003-5019)

The original snubber (TVA S/N M0058) was removed due to 10 percent sample per snubber test program and stored as a spare.

The replacement snubber (TVA S/N M0478) was previously located in 2-47B452R0053E (2-SNUB-074-5016),

removed by WO 00-005312-000 and kept as a spare.

The replacement snubber (TVA S/N M0186) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 16, 2002

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Orders (WO), 00-004415-000, 01-005376-000, 01-005386-000, 01-005388-000, 01-005505-000
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

3. Work TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Authorization No. N/A

Expiration Date N/A

4. Identification of System System 074, Residual Heat Removal System

5. (a) Applicable Construction Code USAS B31.1.0 19 67* Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Support (Snubber) 3-47B452-1491	Bergen-Paterson	TVA Serial No. M0287	N/A	3-SNUB-074-5035	N/A	Replaced	No
Support (Snubber) 3-47B452-1491	Bergen-Paterson	TVA Serial No. M0039	N/A	3-SNUB-074-5035	N/A	Replacement	No
Support (Snubber) 3-47B452-1557	Bergen-Paterson	TVA Serial No. M0039	N/A	3-SNUB-074-5038	N/A	Replaced	No
Support (Snubber) 3-47B452-1557	Anchor/Darling	ADH-3000 868	N/A	3-SNUB-074-5038	N/A	Replacement	No
Support (Snubber) 3-47B452-129	Anchor/Darling	ADH-300-2040	N/A	3-SNUB-074-5040	N/A	Replaced	No
Support (Snubber) 3-47B452-129	Bergen-Paterson	TVA Serial No. M0033	N/A	3-SNUB-074-5040	N/A	Replacement	No
Support (Snubber) 3-47B452-129	Anchor/Darling	ADH-300-2041	N/A	3-SNUB-074-5039	N/A	Replaced	No
Support (Snubber) 3-47B452-129	Bergen-Paterson	TVA Serial No. M0393	N/A	3-SNUB-074-5039	N/A	Replacement	No
Support (Snubber) 3-47B452-105	Bergen-Paterson	TVA Serial No. M0061	N/A	3-SNUB-074-5065	N/A	Replaced	No
Support (Snubber) 3-47B452-105	Bergen-Paterson	TVA Serial No. M0327	N/A	3-SNUB-074-5065	N/A	Replacement	No

7. Description of Work Replaced the referenced snubbers with either new or rebuilt, like-for-like snubbers.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ ** See Remarks

Other ☒** Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

* as amended by additional quality assurances requirements found in contract 68C37-91602, BFN-50-7074 and BFN-50-C-7105

FORM NIS-2 (Back)

9. Remarks WO 00-004415-000 (3-SNUB-074-5035)

Applicable Manufacturer's Data Reports to be attached

The original snubber (TVA Serial No. M0287) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber(TVA Serial No. M0039) was previously located at 3-47B452-1557 (3-SNUB-074-5038),

and was removed by WO 01-005376-000 and kept as a spare.

The replacement snubber (TVA Serial No. M0039) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005376-000 (3-SNUB-074-5038)
The original snubber (TVA Serial No. M0039) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber (Serial No. ADH-3000 868) was purchased under contract 00009753.

The replacement snubber (Serial No. ADH-3000 868) was functionally tested by the manufacturer and found acceptable, prior to installation.

WO 01-005386-000 (3-SNUB-074-5040)
The original snubber (Serial No. ADH-300-2040) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber(TVA Serial No. M0033) was previously located at 3-47B456-97 (3-SNUB-071-5011),

and was removed by WO 99-003436-020 and kept as a spare.

The replacement snubber (TVA Serial No. M0033) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005388-000 (3-SNUB-074-5039)
The original snubber (Serial No. ADH-300-2041) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber (TVA Serial No. M0393) was previously located at 2-47B452-1206 (2-SNUB-074-5010),

and was removed by WO 01-002102-000 and kept as a spare.

The replacement snubber(TVA Serial No.M0393) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005505-000 (3-SNUB-074-5065)
The original snubber (TVA Serial No. M0061) was removed due to 10 percent sample per snubber program and stored as a spare.

expiration. The replacement snubber(TVA Serial No. M0327) was previously located 2-47B452-451 (2-SNUB-074-5045),

and was removed by WO 00-005369-000 and kept as a spare.

The replacement snubber (TVA Serial No.M0327) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Williams, System Engineer (Owner or Owner's Designee, Title) Date 5-20, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 2-6-02 to 3-30-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Albert Todd (Inspector's Signature) Commissions TN 3135 "I" "S" "N" "B" "A" (National Board, State, Province, and Endorsements)

Date 5/30 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 20, 2002

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Orders 01-005502-000 and 01-005504-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System System 075, Core Spray (CS) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Support (Snubber) 3-47B458-558	Bergen-Paterson	TVA Serial No. M0005	N/A	2-SNUB-075-5024	N/A	Replaced	No
Support (Snubber) 3-47B458-558	Bergen-Paterson	TVA Serial No. M0322	N/A	2-SNUB-075-5024	N/A	Replacement	No
Support (Snubber) 3-47B458-567	Bergen-Paterson	TVA Serial No. M0101	N/A	2-SNUB-075-5021	N/A	Replaced	No
Support (Snubber) 3-47B458-567	Bergen-Paterson	TVA Serial No. M0339	N/A	2-SNUB-075-5021	N/A	Replacement	No

7. Description of Work Replaced snubbers with like-for-like replacements
Replaced one bolt lost during installation.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ ** See Remarks

Other ☒** Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contract 68C37-91602 and Design Criteria BFN-50-7075 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks WO 01-005502-000 (3-SNUB-075-5024)

Applicable Manufacturer's Data Reports to be attached

The original snubber (TVA Serial No. M0005) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber(TVA Serial No. M0322) was previously located at 2-47B452 R0052 (2-SNUB-074-5014),

and was removed by WO 00-005313-000 and kept as a spare.

The replacement snubber (TVA Serial No. M0322) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

WO 01-005504-000 (3-SNUB-075-5021)

The original snubber (TVA Serial No. M0101) was removed due to 10 percent sample per snubber program and stored as a spare.

The replacement snubber(TVA Serial No. M0339) was previously located 2-47B452-988 (2-SNUB-074-5023),

and was removed by WO 00-005371-000 and kept as a spare.

The replacement snubber (TVA Serial No. M0339) was rebuilt per MPI-0-000-SNB002 and then functionally tested per 3-SI-4.6.H-2B.

During installation of the replacement snubber an end fitting attachment bolt was lost and was replaced.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/17, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 2-7-02 to 4-5-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions TN 3135 ISBNA

Inspector's Signature National Board, State, Province, and Endorsements

Date June 18 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 20, 2002

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Orders (WO) 99-006554-000, 01-007381-000
Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System System 001, Main Steam System

5. (a) Applicable Construction Code ASME Section III, Article 9, 1965 and ASME Section III 19 68 Edition, Summer 1970 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Main Steam Relief Valve	Target Rock Corp. 7567F-000-10	1059	N/A	3-PCV-001-0019	1968	Replaced	Yes
Main Steam Relief Valve	Target Rock Corp. 7567F-000-10	1085	N/A	3-PCV-001-0019	1968	Replacement	Yes

7. Description of Work Replaced Main Steam Relief valve main body with a rebuilt valve previously used on Unit 3.
Rebuild included replacement of the main disc and a body stud and nut. All inlet and outlet bolting was replaced.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in GE P. O. 205AJ600, and Design Criteria BFN-50-7001 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks The main valve body was replaced with a rebuilt valve body (same manufacturer/model number) previously used at BFN.
Applicable Manufacturer's Data Reports to be attached
This valve is being replaced as part of the regularly scheduled valve inspection required by Tech Specs.

3-PCV-001-0019

WO 01-007381-000 removed the existing valve body (S/N 1059) from the 3-PCV-001-0019 location and replaced it with a with a rebuilt valve (S/N 1085) previously used in BFN Unit 3 (3-PCV-001-0041). The replacement valve was removed from Unit 3 by WO 99-006555-000 and rebuilt by WO 99-006554-000. Rebuild included replacement of the main disc and a body stud and nut galled during disassembly. All inlet and outlet bolting was replaced during installation for ease of maintenance and ALARA considerations

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Willard, System Engineer (Owner or Owner's Designee, Title) Date 6/4, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 11-4-00 to 4-7-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Albert Todd (Inspector's Signature) Commissions TN3135 ISNBA (National Board, State, Province, and Endorsements)

Date June 12 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
   1101 Market Street
   Chattanooga, TN 37402-2801 (Address)

   Date May 24, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Unit 3

   Work Orders (WO) 01-007370-000 and 02-003703-000
   Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Type Code Symbol Stamp N/A

   Authorization No. N/A

   Expiration Date N/A

4. Identification of System System 001, Main Steam System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Main Steam to Off- Gas Preheater Check Vlv	Durabla	E966A-1-5	N/A	3-SHV-001-0742	N/A	Replaced	No
Main Steam to Off- Gas Preheater Check Vlv	Durabla	E966A-1-3	N/A	3-CKV-001-0742	N/A	Replacement	No
Main Steam to Off- Gas Preheater Check Vlv	Durabla	E966A-1-4	N/A	3-SHV-001-0744	N/A	Replaced	No
Main Steam to Off- Gas Preheater Check Vlv	Durabla	E966A-1-6	N/A	3-CKV-001-0744	N/A	Replacement	No

7. Description of Work Replaced check valves with like-for like replacements from the same vendor.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contract 1365888, Design Criteria BFN-50-7001 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced check valves with like-for like replacements from the same vendor.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 5-29, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 4-5-02 to 5-9-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN3135 ISN AB (National Board, State, Province, and Endorsements)

Date June 12 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
   1101 Market Street
   Chattanooga, TN 37402-2801 (Address)

   Date May 24, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Unit 3

   Work Orders 02-003225-000 and 02-003382-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 069, Reactor Water Cleanup (RWCU) System

5. (a) Applicable Construction Code (valve) ASME Section III Class I, 1986 Edition, less N-stamp (piping) USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RWCU Sys Return Check Valve	Anchor/Darling 4"-900# Lift Check	EZ862-1-1	N/A	3-CKV-069-0628	1997	Replaced disc	No
RWCU Sys Return Check Valve	Anchor/Darling 4"-900# Lift Check	EZ862-1-2	N/A	3-CKV-069-0629	1997	Replaced disc	No

7. Description of Work Replaced valve discs. One new disc from the vendor and one refurbished.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in P-97N2R-204635 and P-92ZMB-45195C Release 1451197 and Design Criteria BFN-50-7069 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced valve discs. One new disc from the vendor and one refurbished.
Applicable Manufacturer's Data Reports to be attached

WO 02-003325-000 removed the disc from 3-CKV-069-0628 and installed a new disc. The disc removed from 3-CKV-069-0628 was refurbished in WO 02-003382-000 and placed in 3-CKV-069-0629.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/4, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 3.29.02 to 4.7.02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN3135 I S N B A (National Board, State, Province, and Endorsements)

Date June 14 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
   1101 Market Street
   Chattanooga, TN 37402-2801 (Address)

   Date May 24, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Unit 3

   Work Order 01-008132-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Type Code Symbol Stamp N/A

   Authorization No. N/A

   Expiration Date N/A

4. Identification of System System 073, High Pressure Coolant Injection (HPCI) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
HPCI Turbine Exhaust Inner Rupture Disc	Fike Metal Products 16-CPV-C-BT	Lot # 9723640	N/A	3-RPD-073-0713	1997	Replaced	No
HPCI Turbine Exhaust Inner Rupture Disc	Fike Metal Products 16-CPV-C-BT	Lot # 9723640	N/A	3-RPD-073-0713	1997	Replacement	No

7. Description of Work Replaced rupture disc on turbine exhaust.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contracts 70C53-92291-7, 221688 and Design Criteria BFN-50-7073 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks This activity is a normal, periodic replacement and inspection of the rupture disc required by ASME/ANSI OM-10 and controlled by the BFN Preventive Maintenance Program. No degradation was identified during inspection of the rupture disc removed during this subject activity.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/4, 1902

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT AL4/1/02 have inspected the components described in this Owner's Report during the period 3-11-02 to 3-13-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN 3135 "N" "B" "N" "S" "A" (National Board, State, Province, and Endorsements)

Date June 10 2002 6/10/02

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date May 24, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN)
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3

   Work Order 01-008135-000 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A

   Authorization No. N/A

   Expiration Date N/A

4. Identification of System System 071, Reactor Core Isolation Cooling (RCIC) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RCIC Turbine Exhaust Rupture Disc	Fike Metal Products 8-CPV-C-BT	N/A	N/A	3-RPD-071-0011A		Replaced	No
RCIC Turbine Exhaust Rupture Disc	Fike Metal Products 8-CPV-C-BT	N/A	N/A	3-RPD-071-0011A		Replacement	No

7. Description of Work Replaced rupture disc on turbine exhaust.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contracts 70C53-92291-7 & 89NJL-80177B (ref. PEG pkg 9600000598), and Design Criteria BFN-50-7071 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks This activity is a normal, periodic replacement and inspection of the rupture disc required by ASME/ANSI OM-10 and controlled by the BFN Preventive Maintenance Program. No degradation was identified during inspection of the rupture disc removed during this subject activity.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replaced (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 4/4, 1902

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 3-4-02 to 3-6-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN 3135 "I" "N" "S" "A" "B" (National Board, State, Province, and Endorsements)

Date June 10 ~~12~~ 2002 6/10/02

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 28, 2002

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Order (WO) 99-003420-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System System 063, Standby Liquid Control (SLC) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SLC Pump 3A Suction Shutoff Valve	Velan Valve Corp. B9-054B-13MS	N/A	N/A	3-SHV-063-0506		*	No
* - replaced valve bonnet bolting							
studs	Velan	N/A	N/A	3-SHV-063-0506		Replaced	No
studs	Nova Machine Products	N/A	N/A	3-SHV-063-0506		Replacement	No
nuts	Velan	N/A	N/A	3-SHV-063-0506		Replaced	No
nuts	Allied But & Bolt	N/A	N/A	3-SHV-063-0506		Replacement	No

7. Description of Work Replaced bonnet bolting.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Design Criteria BFN-50-7063 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced bonnet bolting.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 5/28, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by [illegible] of [illegible] have inspected the components described in this Owner's Report during the period 3-31-02 to 4-6-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions TN3135 I S N B A

Inspector's Signature National Board, State, Province, and Endorsements

Date June 10 2002

6/10/02

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date May 28, 2002

   Sheet 1 of 2

2. Plant Browns Ferry Nuclear Plant (BFN) — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3

   Design Change Notice (DCN) T40978, Work Plan T40978-001, Work Order (WO) 98-014466-000 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 077, Radwaste System

5. (a) Applicable Construction Code (valves) ASME Sec III, Class 2, 1989 Edition (Equivalent) (piping) USAS B31.1.0 19 67 * Edition N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Drywell Equip Drain Sump Inbd Isol Valve	Velan B10-064B-2TS 8502-2 WW	N/A	N/A	3-FCV-077-0015A	N/A	Replaced	No
Drywell Equip Drain Sump Inbd Isol Valve	Canadian Worchester K7913 C KN45-0262	N00-0039-2	N/A	3-FCV-077-0015A	2000	Replacement	No
Drywell Equip Drain SumpOutbd Isol Valve	Velan B10-064B-2TS 8502-2 WW	N/A	N/A	3-FCV-077-0015B	N/A	Replaced	No
Drywell Equip Drain SumpOutbd Isol Valve	Canadian Worchester K7913 C KN45-0262	N00-0039-1	N/A	3-FCV-077-0015B	2000	Replacement	No
See Page 2							

7. Description of Work Replaced Drywell Equipment Drain Sump inboard and outboard primary containment isolation valves with a new design. Replaced some associated piping. Modified the pipe support between the valves.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒* * - Reference Code Case N-416-1

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contracts 250534 & 1364025 and Design Criteria BFN-50-7077 and BFN-50-C-7105

FORM NIS-2 (Back)

9. Remarks Replaced Drywell Equipment Drain Sump inboard and outboard primary containment isolation valves (3-FCV-077-0015A & -0015B)
Applicable Manufacturer's Data Reports to be attached
with a new design. Replaced some associated piping. Modified the pipe support between the valves.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/4, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 10-31-01 to 4-6-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN 3135 I SN B A (National Board, State, Province, and Endorsements)

Date June 11 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
SUPPLEMENTAL SHEET

Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 28, 2002

Sheet 2 of 2

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Design Change Notice (DCN) T40978, Work Plan T40978-001, Work Order (WO) 93-014466-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System System 077, Radwaste System

5. (a) Applicable Construction Code valves: ASME Sec III, Class 2, 1989 Edition (Equivalent) piping: USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Pipe	unknown	N/A	N/A	N/A	N/A	Replaced	No
Pipe	Consolidated Power Supply	N/A	N/A	N/A	N/A	Replacement	No
Pipe Support	TVA	N/A	N/A	3-47B482-103	N/A	Replaced	No
Pipe Support	TVA	N/A	N/A	3-47B482-103	N/A	Replacement	No

FORM NIS-2 OWNER'S RÉPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
   1101 Market Street
   Chattanooga, TN 37402-2801 (Address)

   Date May 29, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Unit 3

   Work Order (WO) 02-002122-000 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
   P. O. Box 2000, Decatur, AL 35609-2000 (Address)

   Type Code Symbol Stamp N/A

   Authorization No. N/A

   Expiration Date N/A

4. Identification of System System 074, Residual Heat Removal (RHR) System

5. (a) Applicable Construction Code ASME Section III, Class C 19 65 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
3B RHR Heat Exchanger	PERFEX	07001-2	4199	3-HEX-074-0900B	1970	Repaired	Yes

7. Description of Work Removed surface indication on N3 nozzle.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ Pressure N/A psi Test Temp. N/A °F

   * - No pressure testing required because minimum wall was not violated.

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*reference also additional quality assurance requirements found in Design Criteria BFN-50-7074 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Removed surface indication on N3 nozzle. No pressure testing was required because minimum wall thickness was not violated.
Applicable Manufacturer's Data Reports to be attached
NDE (surface exam) was performed following repair.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Wilhoit, System Engineer (Owner or Owner's Designee, Title) Date 5-29, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 3-12-2002 to 3-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Albert Ladd (Inspector's Signature) Commissions "N" "S" "I" "B" "A" (National Board, State, Province, and Endorsements)

Date May 30 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date May 29, 2002

   Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3

   Work Order (WO) 00-003996-000 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A

   Authorization No. N/A

   Expiration Date N/A

4. Identification of System System 003, Reactor Feedwater (RFW) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Outboard RFW Check Valve - A line	Atwood and Morrill 20788-H	N/A	N/A	3-CKV-003-0554	N/A	*	No
* valve disc replaced							
valve disc	Atwood and Morrill 20788-H	N/A	N/A	3-CKV-003-0554	N/A	replaced	No
valve disc	Atwood and Morrill 20788-H	N/A	N/A	3-CKV-003-0554	N/A	replacement	No

7. Description of Work Replaced valve disc with a new disc from original valve manufacturer.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒

   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contract 90744 and Design Criteria BFN-50-7003 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced valve disc with a new disc from original valve manufacturer.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Stephen C. Willard, System Engineer (Owner or Owner's Designee, Title) Date 5-29, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSBCT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 3-27-02 to 4-4-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Albert Tidd (Inspector's Signature) Commissions TN 3135 "N" "S" "B" "I" "A" (National Board, State, Province, and Endorsements)

Date May 30 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) — Name
   1101 Market Street
   Chattanooga, TN 37402-2801 — Address

   Date May 30, 2002

   Sheet 1 of 2

2. Plant Browns Ferry Nuclear Plant (BFN) — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Unit 3

   Work Orders (WO) 01-005501-001, 01-005501-002 and 01-005501-005
   Design Change Notice (DCN) 50729 Stage 1 — Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN — Name
   P. O. Box 2000, Decatur, AL 35609-2000 — Address

   Type Code Symbol Stamp N/A
   Authorization No. N/A
   Expiration Date N/A

4. Identification of System System 085, Control Rod Drive (CRD) System

5. (a) Applicable Construction Code (valves) ASME Sec. III 1989 Edition (less N-stamp) (piping) USAS B31.1.0 19 67 * Edition N/A Addenda, N/A Code Case

   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Root Valve to LS-85-45D (Bottom)	Kerotest	N/A	N/A	3-RTV-085-0277	N/A	Replaced	No
Root Valve to LS-85-45D (Bottom)	Flowserve 2"-800#-Gate-SW	E488T-1-2	N/A	3-RTV-085-0277	2002	Replacement	No
Root Valve to LS-85-45C (Bottom)	Kerotest	N/A	N/A	3-RTV-085-0278	N/A	Replaced	No
Root Valve to LS-85-45C (Bottom)	Flowserve 2"-800#-Gate-SW	E488T-1-1	N/A	3-RTV-085-0278	2002	Replacement	No
See Sheet 2 for continuation of component listing							

7. Description of Work Replaced valves and piping on inlet side of level switches with larger diameter components
   Modified CRD support 3-47B468-241

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒* * - Reference Code Case N-416-1
   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in Contracts 90744, 1721-00075 and Design Criteria BFN-50-7085 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced valves and piping on inlet side of level switches 3-LS-085-45C, -45D, -45E and -45F with larger diameter components.
Applicable Manufacturer's Data Reports to be attached
Modified CRD support 3-47B468-241

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/6, 2002

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 4-2-02 to 4-7-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions TN3135 I N S A B
Inspector's Signature National Board, State, Province, and Endorsements

Date June 10 ~~20~~ 2002
6/10/02

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
SUPPLEMENTAL SHEET

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 30, 2002

Sheet 2 of 2

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit # 3

Work Orders (WO) 01-005501-001, 01-005501-002 and 01-005501-005
Design Change Notice (DCN) 50729 Stage 1 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System System 085, Control Rod Drive (CRD) System

5. (a) Applicable Construction Code (valves) ASME Sec. III 1989 Edition (less N-stamp) (piping) USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Root Valve to LS-85-45E (Bottom)	Kerotest	N/A	N/A	3-RTV-085-0286	N/A	Replaced	No
Root Valve to LS-85-45E (Bottom)	Flowserve 2"-800#-Gate-SW	E488T-1-3	N/A	3-RTV-085-0286	2002	Replacement	No
Root Valve to LS-85-45F (Bottom)	Kerotest	N/A	N/A	3-RTV-085-0288	N/A	Replaced	No
Root Valve to LS-85-45F (Bottom)	Flowserve 2"-800#-Gate-SW	E488T-1-4	N/A	3-RTV-085-0288	2002	Replacement	No
Piping	Unknown	N/A	N/A	N/A	N/A	Replaced	No
Piping	Consolidated Power Supply	N/A	N/A	N/A	N/A	Replacement	No
CRD Pipe Support	TVA	N/A	N/A	3-47B468-241	N/A	Replaced	No
CRD Pipe Support	TVA	N/A	N/A	3-47B468-241	N/A	Replacement	No

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date May 30, 2002

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Order (WO) 01-012431-000
Design Change Notice (DCN) 50287A Stage 6
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System System 073, High Pressure Coolant Injection (HPCI) System

5. (a) Applicable Construction Code USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
HPCI Pipe Support	TVA	N/A	N/A	3-47B455-635	N/A	Replacement/ Modification	No

7. Description of Work Modification to HPCI Pipe Support 3-47B455-635.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐

Other ☒* Pressure N/A psi Test Temp. N/A °F
* - See remarks

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form

*as amended by additional quality assurance requirements found in Design Criteria BFN-50-7073 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Modification to HPCI Pipe Support 3-47B455-635 (DCN 50287A Stg 6) to reduce loading on HPCI Turbine inlet nozzle.
Applicable Manufacturer's Data Reports to be attached
Visual exam (VT-3) performed following modification.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 6/4, 20 02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of TENNESSEE and employed by HSB CT of HARTFORD, CT have inspected the components described in this Owner's Report during the period 1-3-02 to 4-4-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] (Inspector's Signature) Commissions TN3135 I S N BA (National Board, State, Province, and Endorsements)

Date June 11 2002

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 3
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME),
SECTION XI, REPAIR AND REPLACEMENTS PROGRAM

OMITTED NIS-2 REPORT FOR CYCLE 9 OPERATION

(See Attached)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Tennessee Valley Authority (TVA) (Name)
1101 Market Street
Chattanooga, TN 37402-2801 (Address)

Date March 7, 2001

Sheet 1 of 1

2. Plant Browns Ferry Nuclear Plant (BFN) (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Unit 3

Work Orders 99-010016-000 and 99-010069-000
Repair Organization P.O. No., Job No., etc.

3. Work Performed by TVA-BFN (Name)
P. O. Box 2000, Decatur, AL 35609-2000 (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System System 069, Reactor Water Cleanup (RWCU) System

5. (a) Applicable Construction Code (valve) ASME Section III Class I, 1986 Edition, less N-stamp (piping) USAS B31.1.0 19 67 * Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RWCU Sys Return Check Valve	Anchor/Darling 4"-900# Lift Check	EZ862-1-1	N/A	3-CKV-069-0628	1997	Replacement	No
RWCU Sys Return Check Valve	Anchor/Darling 4"-900# Lift Check	EZ862-1-2	N/A	3-CKV-069-0629	1997	Replacement	No

7. Description of Work Replaced valve discs with new discs from the vendor.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental Sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

*as amended by additional quality assurance requirements found in P-97N2R-204635 and P-92ZMB-45195C Releases 1361103 & 1294333 and Design Criteria BFN-50-7069 and BFN-50-C-7105.

FORM NIS-2 (Back)

9. Remarks Replaced valve discs with new discs from the vendor.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement (repair or replacement) conforms to the rules of the ASME Code Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature], System Engineer (Owner or Owner's Designee, Title) Date 3-23, 20 01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of MISSISSIPPI and employed by Hartford Steam Boiler I&I Co. of Hartford CT. have inspected the components described in this Owner's Report during the period 12-07-2000 to 3-23-2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Frank E. Ballard Jr. (Inspector's Signature) Commissions MS 90 (National Board, State, Province, and Endorsements)

Date 3-23 20 01