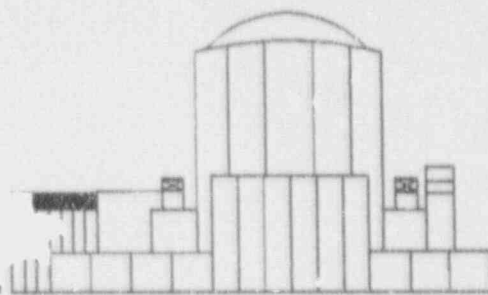
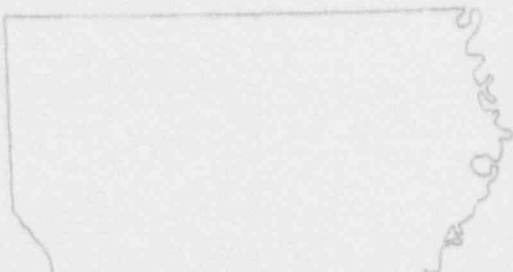




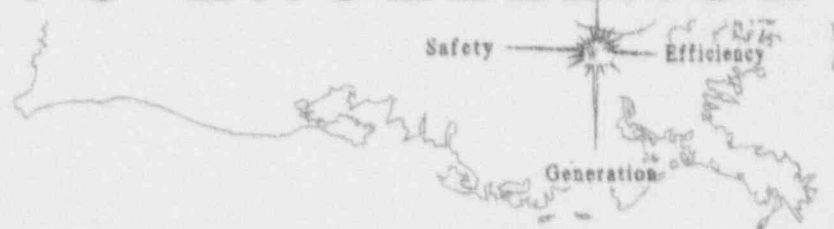
ENTERGY



WATERFORD SES - UNITS



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Inservice Inspection Summary Report
First Interval * Third Period * Fifth Refueling
September - October 1992

Entergy Operations, Inc.

9302110475 930204
PDR ADDCK 05000382
3 PDR

FIFTH REFUELING INSERVICE INSPECTION
SUMMARY REPORT

PLANT

WATERFORD 3 STEAM ELECTRIC STATION
HIGHWAY 18
KILLUNA, LOUISIANA 70066

UTILITY

ENTERGY OPERATIONS, INC.
1340 ECHELON PARKWAY
JACKSON, MISSISSIPPI 39213

AUTHORIZED INSPECTION AGENCY

ARKWRIGHT MUTUAL INSURANCE COMPANY
225 WYMAN STREET
WALTHAM, MASSACHUSETTS 02154

COMMERCIAL SERVICE DATE: 09/24/85

Prepared By:

Chas E. Foyall

Inservice Inspection Coordinator

1

1/28/93
Date

Reviewed By:

[Signature]

Inspection Programs Supervisor

1

1/28/93
Date

Reviewed By:

Harold S. Belmont

Authorized Nuclear Inservice Inspector

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2-4-93
Date

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FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

1.0 Introduction

In accordance with IWA-6000 of ASME Section XI, 1980 Edition thru Winter 81 Addenda, the following is the Inservice Inspection (ISI) Summary Report for the Fifth Refueling Outage of Waterford Steam Electric Station, Unit 3. Refuel 5 was the first outage of the third inspection period in the first ten year interval. Included in this report are summaries of examinations, abstracts of conditions found and corrective actions taken, repair/replacement activities and the "Owners Data Report for Inservice Inspection", Form NIS-1. The NIS-2 form, although not mandatory by the Winter 81 Addenda of Section XI, is being used to document repair/replacement activities.

This Summary Report covers Class 1, 2, and 3 components and their supports examined since the RCS Leakage Test at start-up from the Fourth Refueling (5/21/91) up to the RCS Leakage Test at start-up from the Fifth Refueling (11/6/92). The NIS-2 forms are included in Section 7.0 of this report and document Class 1 and 2 components and their supports which were repaired/replaced during this same time period.

The selection of items examined during Refuel 5 was based upon the requirements of the Waterford 3 Ten Year ISI Program. These items are listed by Code Item number in Sections 2.2, 3.2, 4.2 and 5.2 of this report. The items which received a limited exam during Refuel 5 have been identified by a note in the comments column. These items will be included in the applicable Relief Request (i.e., ISI-001, ISI-010) in the next revision of the Waterford 3 Ten Year ISI Program.

There were five methods of nondestructive examination (NDE) utilized during the implementation of the program: radiography (RT), ultrasonics (UT), penetrant (PT), magnetic particle (MT), and visual (VT). All procedures were developed by Entergy with the exception of the procedures used to examine Reactor Vessel bolting, which were developed by Westinghouse Electric Corporation. Examination procedures were reviewed by Entergy Operations, Inc. and Factory Mutual (ANII) prior to use. Overall implementation and supervisory control of contractors involved with Inservice Inspection was accomplished with Entergy personnel. The calibration standards used during Refuel 5 are the same standards (or exact replicas) which were utilized during Preservice examinations with exception of the calibration standard used for Reactor Vessel stud examinations. A new stud calibration standard was fabricated to facilitate examination from the bore hole. The UT equipment used were Sonic 136D, USK 7, USK 7D and EPOCH 2000 instruments. The transducers used were manufactured by Aerotech, Megasonics, Sigma and RTD.

All NDE data, vendor procedures, equipment/material certifications and personnel certifications associated with the examination portion of this report are stored in Waterford 3 Plant Records under R-Type C4.02 (NDE data, Westinghouse procedures/certifications and all UT certifications), I1.15 (personnel certifications) and J7.02 (MT/PT certifications). Steam Generator tube eddy current examinations are reported in accordance with Waterford 3 Technical Specifications and are not included in this report.

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner Entergy Operations, Inc., 1340 Echelon Parkway, Jackson, MS 39213
(Name and Address of Owner)
2. Plant Waterford Steam Electric Station, P.O. Box B, Killona, LA 70066
(Name and Address of Plant)
3. Plant Unit 3 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 09/24/85 6. National Board Number for Unit See Below
7. Components inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province (No.)	National Board No.
Reactor Vessel Closure Head	Combustion Engineering	74170	N/A	21694
Steam Generator #1	Combustion Engineering	74270-1	N/A	22156
Steam Generator #2	Combustion Engineering	74270-2	N/A	22157
Pressurizer and Support	Combustion Engineering	74370	N/A	21682
R.C. Pump 1A	Byron Jackson	711-N-0176	N/A	N/A
R.C. Pump 1B	Byron Jackson	711-N-0174	N/A	N/A
R.C. Pump 2A	Byron Jackson	711-N-0173	N/A	N/A
R.C. Pump 2B	Byron Jackson	711-N-0175	N/A	N/A
Class 1 Valve RC-301A	Fisher Controls Co.	6721133	N/A	N/A
Class 1 Valve RC-301C	Fisher Controls Co.	6721134	N/A	N/A
Class 1 Valve RC-317A	Dresser	BS-01593	N/A	N/A
Class 1 Valve RC-317B	Dresser	BS-08030	N/A	N/A
Class 1 Piping & Supports	Combustion Engineering, Dravo, Bergen-Paterson	*	N/A	N/A
Class 2 Piping & Supports	Dravo, Bergen-Paterson	*	N/A	N/A

* Piping systems and component supports are too numerous to list. See Fifth Refueling Inservice Inspection Summary Report for complete list of components examined.

NOTE: Components which only received a VT-2 examination during a system pressure test are not listed above. See Section 6.0 of the Fifth Refueling Inservice Inspection Summary Report for pressure testing information.

FORM NIS-1 (back)

8. Examination Dates 2/7/92 to 11/6/92 9. Inspection Interval from 9/24/85 to 9/24/95

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Fifth Refueling Outage Inservice Inspection Summary Report.

11. Abstract of Conditions Noted

See Fifth Refueling Outage Inservice Inspection Summary Report.

12. Abstract of Corrective Measures Recommended and Taken

See Fifth Refueling Outage Inservice Inspection Summary Report.

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 Feb. 4 19 93 Signed Energy Operations By Chris E. Fitzgerald
Owner

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

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 Louisiana and employed by See Below * of Norwood, MA have inspected the components described in this Owners' Data Report during the period 2/7/92 to 11/6/92 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 2-4 19 93

Hugh A. Sanford
Inspector's Signature

Commissions 5951 N B I S
National Board, State, Province and No.

* Arkwright Mutual Insurance Co.
Factory Mutual Engineering
Association

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.0 Class 1 Examination Summary

2.1 Class 1 Examination Completion Status
3rd Period, 5th Refueling

CODE ITEM NO.	TOTAL EXAMS SELECTED FOR INTERVAL	EXAMS COMPLETED FIFTH REFUELING	TOTAL EXAMS COMPLETED TO DATE	% EXAMS COMPLETED TO DATE	COMMENTS
B1.11	3	0	0	0	DEFERRED
B1.12	9	0	0	0	DEFERRED
B1.21	1	0	0	0	DEFERRED
B1.22	10	0	4	40	
B1.30	1	0	1/2	50	
B1.40	1	0	2/3	66	
B2.11	2	1	2	100	
B2.12	4	2	4	100	
B2.31	10	4	10	100	
B2.32	18	6	18	100	
B2.40	2	1	2	100	
B3.90	6	0	2	33	
B3.100	6	0	2	33	
B3.110	5	2	5	100	
B3.120	5	2	5	100	
B3.130	6	2	6	100	
B3.140	6	2	6	100	
B4.11	16	16	16	100*	
B4.12	91	91	91	100*	
B4.13	10	10	10	100*	
B4.20	30	30	30	100*	
B5.40	5	0	3	60	
B5.130	15	0	10	66	
B5.140	9	2	8	89	
B6.10	54	18	54	100	
B6.30	54	18	54	100	
B6.40	54	0	27	50	
B6.50	54	18	54	100	
B6.180	16	0	16	100	
B6.190	16	0	16	100	
B6.200	16	0	16	100	
B7.20	1	0	2/3	66	
B7.30	4	2	4	100	
B7.40	4	2	4	100	
B7.50	2	1	2	100	
B7.60	4	2	4	100	
B7.70	20	3	16	80	
B8.20	1	1/3	1	100	
B8.30	1	1/3	1	100	
B9.11	150	14	67	45	SEE NOTE 1
B9.12	76	8	26	34	SEE NOTE 1
B9.21	95	3	63	66	SEE NOTE 1

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.1 Cont'd Class 1 Examination Completion Status
3rd Period, 5th Refueling

CODE ITEM NO.	TOTAL EXAMS SELECTED FOR INTERVAL	EXAMS COMPLETED FIFTH REFUELING	TOTAL EXAMS COMPLETED TO DATE	% EXAMS COMPLETED TO DATE	COMMENTS
B9.31	7	0	2	28	SEE NOTE 1
B9.32	13	0	2	15	SEE NOTE 1
B10.20	4	2	4	100	
B12.10	2	0	0	0	DEFERRED
B12.20	1	0	1	100	
B12.40	1	1	1	100	
B12.50	6	0	4	67	
B13.10	1	1	1	100**	
B13.30	6	0	0	0	DEFERRED
B13.31	16	0	0	0	DEFERRED
B13.32	1	0	0	0	DEFERRED
B14.10	8	0	0	0	DEFERRED
Cat. F-A	1	1/3	1	100	
Cat. F-C	137	3	93	68	
Flywheels	4	0	4	100**	Reg. Guide 1.14

* 100% examined each refueling outage.

** 100% examined at approximately 3 year intervals.

NOTE 1: During the fifth cycle of operation at Waterford 3, 126 Category B-J welds (i.e., Code Items B9.11, B9.12, B9.21, B9.31, B9.32) were added to the selection scope of the Waterford 3 Ten Year ISI Program. These welds were added following a review of stress calculations for all non-exempt Class 1 & 2 piping welds (approx. 1600). The review was performed due to past events (e.g., snubber reduction program, thermal stratification issues, component support modifications) which inevitably affected weld stress levels. The welds which were added to the program met the "high stress" criteria in ASME Section XI and therefore are required to be examined. See Revision 5 of the Waterford 3 Ten Year Inservice Inspection Program for details.

2.2 Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
B-B	B2.11	05-008	1-2100	106"D	CS CLAD	
	B2.12	05-006	1-2100	12"L	CS CLAD	EXAMINED 12"
		05-007	1-2100	12"L	CS CLAD	EXAMINED 12"

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.2 Con't'd Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
B-B	B2.31	03-008	1-3100	172"D	CS CLAD	
		03-032	1-3100	23"D	CS CLAD	LIMITED EXAM
		03-033	1-3100	23"D	CS CLAD	
		03-034	1-3100	23"D	CS CLAD	
	B2.32	03-003	1-3100	100"L	CS CLAD	
		03-004	1-3100	100"L	CS CLAD	
		03-013	1-3100	9"L	CS CLAD	
		03-014	1-3100	9"L	CS CLAD	
		03-015	1-3100	9"L	CS CLAD	
		03-016	1-3100	9"L	CS CLAD	
	B2.40	03-009	1-3100	172"D	CS CLAD	
B-D	B3.110	05-010	1-2100	4"D	CS CLAD	
		05-013	1-2100	8"D	CS CLAD	
	B3.120	05-015	1-2100	4"D	CS CLAD	LIMITED EXAM
		05-018	1-2100	8"D	CS CLAD	LIMITED EXAM
	B3.130	03-011	1-3100	30"D	CS CLAD	
		03-012	1-3100	30"D	CS CLAD	
	B3.140	03-020	1-3100	30"D	CS CLAD	
		03-021	1-3100	30"D	CS CLAD	
B-E	B4.11	02-S-01	1-3100	3/4"D	INCONEL	SEE PARA. 6.2
		05-A-01	1-2100	3/4"D	SS	SEE PARA. 6.2
		05-A-02	1-2100	3/4"D	SS	SEE PARA. 6.2

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.2 Cont'd Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
B-E	B4.11	05-B-01 thru 05-B-04	1-2100	3/4"D	SS	SEE PARA. 6.2
		05-C-01	1-2100	1"D	SS	SEE PARA. 6.2
		03-N-01 thru 03-N-04	1-3100	3/4"D	SS	SEE PARA. 6.2
		04-N-01 thru 04-N-04	1-3200	3/4"D	SS	SEE PARA. 6.2
	B4.12	02-V-01 thru 02-V-91	1-1300	4"D	INCONEL	SEE PARA. 6.2
	B4.13	02-U-92 thru 02-U-101	1-1300	5-1/2"D	INCCNEL	SEE PARA. 6.2
	B4.20	05-H-01 thru 05-H-30	1-2100	1-1/2"D	SS	SEE PARA. 6.2
B-F	B5.140	11-007	1-4200	2"D	CS CLAD & CAST SS	
		13-012	1-4201	2"D	CS CLAD & CAST SS	
B-G-1	B6.10	01-N-01 thru 01-N-18	1-1400	6.75"D	CS	SEE NOTE 1
		01-N-37 thru 01-N-54	1-1400	6.75"D	CS	
	B6.30	01-S-22	1-1400	6.75"D	CS	SEE NOTE 2
		01-S-23	1-1400	6.75"D	CS	SEE NOTE 2
		01-S-24	1-1400	6.75"D	CS	SEE NOTE 2

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.2 Cont'd Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
B-G-1	B6.30	01-S-29	1-1400	6.75"D	CS	SEE NOTE 2
		01-S-35	1-1400	6.75"D	CS	SEE NOTE 2
		01-S-37 thru 01-S-54	1-1400	6.75"D	CS	
	B6.50	01-W-37 thru 01-W-54	1-1400	6.75"D	CS	
B-G-2	B7.30	03-022	1-3100	1"D	CS	
		03-023	1-3100	1"D	CS	
	B7.40	37-008	1-5100	2"D	CS	
		38-008	1-5200	2"D	CS	
	B7.50	RC-317A	1-4501	6"D	SS	
	B7.60	37-009	1-5100	1.5"D	CS	
		38-009	1-5200	1.5"D	CS	
	B7.70	RC-301A	1-4502	3"D	SS	
		RC-301B	1-4502	3"D	SS	
		RC-317A	1-4501	6"D	SS	
B-H	B8.20	05-001	1-2100	100"D	CS	EXAMINED 1/3 ID/OD
	B8.30	03-001	1-3100	56"D	CS	EXAMINED 1/3 ID/OD
B-J	B9.11	07-016	1-4100	30"D	CS CLAD	
		07-017	1-4100	30"D	CS CLAD	LIMITED EXAM
		07-018	1-4100	30"D	CS CLAD	
		09-001	1-4101	30"D	CS CLAD	
		09-002	1-4101	30"D	CS CLAD	LIMITED EXAM

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.2 Cont'd Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
B-J	B9.11	09-018	1-4101	30"D	CS CLAD	
		25-023	1-4502	4"D	SS	
		25-024	1-4502	4"D	SS	
		25-026	1-4502	4"D	SS	
		25-027	1-4502	4"D	SS	
		25-028	1-4502	4"D	SS	
		26-007	1-4501	6"D	SS	
		26-008	1-4501	6"D	SS	
		26-009	1-4501	6"D	SS	
	B9.12	07-014LB	1-4100	30"D	CS CLAD	EXAMINED 12"
		07-015LA	1-4100	30"D	CS CLAD	EXAMINED 12"
		07-019LA	1-4100	30"D	CS CLAD	
		07-020LB	1-4100	30"D	CS CLAD	
		09-003LB	1-4101	30"D	CS CLAD	EXAMINED 12"
		09-004LA	1-4101	30"D	CS CLAD	EXAMINED 12"
		09-019LB	1-4101	30"D	CS CLAD	
	B9.21	35-001	1-4206	2"D	SS	
		35-002	1-4206	2"D	SS	
35-003		1-4206	2"D	SS		
B-K-1	B10.20	39-003	1-5300	80"D	CAST SS	EXAMINED ID/ OD
		40-003	1-5400	80"D	CAST SS	EXAMINED ID/ OD
B-M-1	B12.40	RC-317B	1-4501	6"D	SS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.2 Cont'd Class 1 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DPAWING	SIZE	MATERIAL	COMMENTS
B-N-1	B13.10	01-054	1-1200	N/A	N/A	LIMITED EXAM SEE PARA. 2.3.1
F-A	N/A	05-021	1-2100	103"D	CS	EXAMINED 1/3
F-C	N/A	RCRR-0101	1-4502	4"D	CS	
		RCRR-0105	1-4502	4"D	CS	ADDITIONAL EXAM; SEE PARA. 2.4.1
		RCRR-0106	1-4502	3"D	CS	ADDITIONAL EXAM; SEE PARA. 2.4.1
		RCRR-0149	1-4504	3"D	CS	ADDITIONAL EXAM; SEE PARA. 2.4.1
		RCRR-0150	1-4504	3"D	CS	ADDITIONAL EXAM; SEE PARA. 2.4.1
		RCRR-0156	1-4504	3"D	CS	
		RCRR-0157	1-4504	3"D	CS	ADDITIONAL EXAM; SEE PARA. 2.4.1
		RCRR-0321	1-4504	3"D	CS	SEE PARA. 2.3.3

NOTE 1: Supplementary surface examinations were performed on Reactor Vessel Nuts 01-N-01 through 01-N-18 as stated in Ten Year ISI Program. Credit towards Table IWC-2412-1 of ASME Section XI was taken during Refuel 2.

NOTE 2: These Reactor Vessel studs were examined during Refuel 3 and rejected by the examiner due to linear indications on the shank. An engineering evaluation determined the conditions to be acceptable as is but recommended reexamination of the support during Refuel 5. Credit towards Table IWB-2412-1 of ASME Section XI was taken during Refuel 3.

2.3 Abstract of Conditions Noted and Corrective Actions Taken

2.3.1 Component I.D. No. 01-054 (Reactor Vessel and Closure Head Interior): Remote visual examination (VT-3) using a video camera mounted to a miniature submarine revealed gouged core barrel alignment keys at 90 and 270 degrees of the vessel. Also, debris was noted in a localized area of the flange

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.3.1 (Cont'd)

surface and linear indications (apparent scratches) were noted on the Core Barrel interior at 270 degrees. An engineering evaluation determined that there was no significant damage which would affect the integrity of the Reactor Vessel.

2.3.2 Component Support No. RCRR-149: Visual examination (VT-3) revealed a missing portion of a cotter pin. The cotter pin was replaced and the support was reexamined and determined acceptable.

2.3.3 Component Support No. RCRR-321: Visual examination (VT-3) revealed a loose clamp which had rotated on pipe causing clamp to strut misalignment. The clamp was realigned and the support was reexamined and determined acceptable. See paragraph 2.4.1 for additional examinations required per IWF-2430(a).

2.4 Additional Examinations

As required by IWF-2430(a), additional examinations were performed when indications which exceeded the allowable standards of IWF-3000 were discovered. Details of the selection process and additional examinations performed are discussed below. No credit toward completion of required percentages of Table IWB-2412-1 is taken for additional exams.

2.4.1 Component Support No. RCRR-0321: Examination results required clamp to strut realignment, therefore IWF-2430 applies. As required, the adjacent supports (RCRR-0105 and RCRR-0149) were examined and determined acceptable.

Support No. RCRR-0321 is a rigid restraint which supports a Pressurizer Spray line from Loop 1B. Three component supports of similar type, design and function were examined during Refuel 5. Therefore, three additional supports were selected for examination in accordance with IWF-2430. The additional supports which were examined (including adjacent supports) are listed as follows:

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
RCRR-0105	F-C	1-4502	ACCEPTABLE
RCRR-0106	F-C	1-4502	ACCEPTABLE
RCRR-0149	F-C	1-4504	ACCEPTABLE*
RCRR-0150	F-C	1-4504	ACCEPTABLE
RCRR-0157	F-C	1-4504	ACCEPTABLE

* See Para. 2.3.2

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

2.5 Successive Examinations

- 2.5.1 There were no successive examinations performed per IWB/IWF-2420(b) on Class 1 items during Refuel 5.
- 2.5.2 Successive examinations will be performed on RCRR-0321 which required corrective measures in accordance with the provisions of IWF-3000. This component support will be reexamined during the first inspection period of the second ten year interval as required by IWF-2420(b).

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.0 Class 2 Examination Summary

3.1 Class 2 Examination Completion Status
3rd Period, 5th Refueling

CODE ITEM NO.	TOTAL EXAMS SELECTED FOR INTERVAL	EXAMS COMPLETED FIFTH REFUELING	TOTAL EXAMS COMPLETED TO DATE	% EXAMS COMPLETED TO DATE	COMMENTS
C1.10	5	1	4	80	
C1.20	2	1	2	100	
C1.30	2	0	1	50	
C2.21	2	1	2	100	
C2.22	2	0	2	100	RELIEF REQ. ISI-011
C2.31	4	0	2	50	
C2.32	2	2	2	100	EXAMINED EACH PERIOD
C3.10	4	2	4	100	
C3.20	25	5	21	84	
C3.30	6	0	3	66	
C5.11	70	21	68	97	
C5.12	5	2	5	100	
C5.21	48	10	40	83	
C5.22	10	0	6	60	
C5.31	1	0	2/3	66	
C6.20	2	0	1	50	
Cat. F-A	4	0	2	50	
Cat. F-C	157	4	108	69	

3.2 Class 2 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
C-A	C1.10	04-027	2-3200	264"D	CS	LIMITED EXAM
	C1.20	04-029	2-3200	105"D	CS	LIMITED EXAM
C-B	C2.21	04-030	2-3200	40"D	CS	LIMITED EXAM
	C2.32	54-081	2-1200	12"D	CS	SEE PARA. 6.2
		54-082	2-1200	12"D	CS	SEE PARA. 6.2
C-C	C3.10	04-061	2-3200	N/A	CS	LIMITED EXAM
		04-062	2-3200	N/A	CS	LIMITED EXAM
	C3.20	42-WS-1	2-4200	40"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.2 Cont'd Class 2 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
C-C	C3.20	42-WS-1	2-4102	20"D	CS	
		45-WS-2	2-4102	20"D	CS	
		45-WS-3	2-4102	20"D	CS	
		45-WS-4	2-4102	20"D	CS	
C-F	C5.11	49-014	2-4104	14"D	SS	
		49-015	2-4104	14"D	SS	
		49-023	2-4104	14"D	SS	
		49-026	2-4104	14"D	SS	
		50-060	2-4204	20"D	SS	
		50-062	2-4204	20"D	SS	
		51-060	2-4105	14"D	SS	
		51-062	2-4105	14"D	SS	
		52-007	2-4206	6"D	SS	
		55-001	2-4109	10"D	SS	
		55-002	2-4109	10"D	SS	
		55-005	2-4112	10"D	SS	
		55-006	2-4112	10"D	SS	
		55-007	2-4112	10"D	SS	
		55-008	2-4112	10"D	SS	
		56-034	2-4211	8"D	SS	
		56-066	2-4212	8"D	SS	
57-002	2-4110	10"D	SS			
57-005	2-4110	10"D	SS			
58-017	2-4210	10"D	SS			

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.2 Cont'd Class 2 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
C-F	C5.11	58-018	2-4210	10"D	SS	
	C5.12	50-061LA	2-4204	20"D	SS	EXAMINED 1"
		50-061LB	2-4204	20"D	SS	EXAMINED 1"
	C5.21	42-001	2-4200	34"D	CS	LIMITED EXAM
		42-002	2-4200	34"D	CS	
		42-024	2-4200	34"D	CS	LIMITED EXAM
		46-006	2-4202	20"D	CS	LIMITED EXAM
		46-008	2-4202	20"D	CS	LIMITED EXAM
		46-009	2-4202	20"D	CS	
		52-003	2-4206	14"D	SS	LIMITED EXAM
		52-004	2-4206	14"D	SS	LIMITED EXAM
		55-066	2-4113	6"D	SS	LIMITED EXAM
		55-078	2-4113	8"D	SS	LIMITED EXAM
F-C	N/A	MSRR-0002	2-4200	34"D	CS	
		MSRR-0007	2-4200	40"D	CS	SEE PARA. 3.3.1
		MSRR-0009	2-4200	40"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1
		MSRR-0011	2-4100	34"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1
		MSRR-0016	2-4100	40"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1
		MSRR-0018	2-4100	40"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1
		MSRR-0241	2-4101	40"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.2 Cont'd Class 2 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS	
F-C	N/A	MSRR-0242	2-4101	40"D	CS	ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1 ADDITIONAL EXAM; SEE PARA. 3.4.1	
		MSRR-0243	2-4101	40"D	CS		
		MSRR-0244	2-4101	40"D	CS		
		MSRR-0247	2-4201	40"D	CS		
		MSRR-0248	2-4201	40"D	CS		
		MSRR-0249	2-4201	40"D	CS		
		MSRR-0250	2-4201	40"D	CS		
		MSRR-0363	2-4101	8"D	CS		
		MSRR-0365	2-4201	8"D	CS		
		MSSH-0003	2-4200	40"D	CS		
		MSSH-0005	2-4200	40"D	CS		
		SIRR-0293	2-4113	8"D	CS		SUCCESSIVE EXAM; SEE PARA. 3.5.1 SUCCESSIVE EXAM; SEE PARA. 3.5.1 SUCCESSIVE EXAM; SEE PARA. 3.5.1
		SIRR-0403	2-4212	8"D	CS		
		SIRR-0932	2-4212	8"D	CS		

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.3 Abstract of Conditions Noted and Corrective Action Taken

- 3.3.1 Component Support No. MSRR-0007: Visual examination (VT-3) revealed loose clamp bolts (2) on pipe clamp. The bolts were tightened and the support was reexamined and determined acceptable. See paragraph 3.4.1 for additional examinations required per IWF-2430(a).
- 3.3.2 Component Support No. MSRR-0018: Visual examination (VT-3) revealed loose clamp bolts (2) on pipe clamp and a missing cotter pin. The bolts were tightened and a cotter pin was installed. The support was reexamined and determined acceptable. This support was examined as an additional exam in accordance with IWF-2430(a), see paragraph 3.4.1 for details.

3.4 Additional Examinations

As required by IWF-2430(a), additional examinations were performed when component supports which required corrective measures in accordance with the provisions of IWF-3000 were discovered. Details of the selection process and additional examinations performed are discussed below. No credit toward completion of required percentages of Table IWC-2412-1 is taken for additional exams.

- 3.4.1 Component Support No. MSRR-0007: Examination results required clamp bolts to be tightened, therefore IWF-2430 applies. One of the adjacent supports (MSSH-0005) was examined and accepted as part of the original outage scope. The other adjacent support (MSRR-0009) was examined in accordance with IWF-2430 and accepted.

Support No. MSRR-0007 is a rigid restraint which supports a 40" Main Steam line from Steam Generator 2. Two component supports of similar type, design and function were examined during Refuel 5. Therefore, two additional supports were selected for examination in accordance with IWF-2430. Of the two additional supports, one support (MSRR-0018) was rejected due to loose clamp bolts. This required the examination of all rigid restraints on similar trains or piping. In all, 14 additional examinations were performed (including adjacent supports). The following is a list of the additional supports:

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
MSRR-0009	F-C	2-4200	ACCEPTABLE
MSRR-0011	F-C	2-4100	ACCEPTABLE
MSRR-0016	F-C	2-4100	ACCEPTABLE
MSRR-0018	F-C	2-4100	UNACCEPTABLE*

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

3.4.1 (Cont'd)

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
MSRR-0241	F-C	2-4101	ACCEPTABLE
MSRR-0242	F-C	2-4101	ACCEPTABLE
MSRR-0243	F-C	2-4101	ACCEPTABLE
MSRR-0244	F-C	2-4101	ACCEPTABLE
MSRR-0247	F-C	2-4201	ACCEPTABLE
MSRR-0248	F-C	2-4201	ACCEPTABLE
MSRR-0249	F-C	2-4201	ACCEPTABLE
MSRR-0250	F-C	2-4201	ACCEPTABLE
MSRR-0363	F-C	2-4101	ACCEPTABLE
MSRR-0365	F-C	2-4201	ACCEPTABLE

* See Para. 3.3.2

3.5 Successive Examinations

3.5.1 As required by IWF-2420(b), successive examinations were performed during Refuel 5 on items which failed to meet established acceptance criteria during the second inspection period. The Class 2 items which were examined per IWF-2420(b) are listed as follows:

COMPONENT I.D. NO	COMPONENT DESCRIPTION	DRAWING NO.	PREVIOUS EXAM	RESULTS
SIRR-293	RIGID RESTRAINT	2-4113	REFUEL 3	ACCEPTABLE
SIRR-403	RIGID RESTRAINT	2-4212	REFUEL 3	ACCEPTABLE
SIRR-932	RIGID RESTRAINT	2-4212	REFUEL 3	ACCEPTABLE

These examinations did not result in additional corrective measures to be taken. Therefore, as allowed by IWF-2420(c), the inspection frequency for these supports will revert to the original ten year schedule.

3.5.2 Successive examinations will be performed on the component supports which required corrective measures in accordance with provisions of IWF-3000. The following Class 2 component supports will be reexamined during the first inspection period of the second ten year interval as required by IWF-2420(b):

MSRR-0007
MSRR-0018*

* This support was examined as an additional examination (IWF-2430) during Refuel 5 and rejected.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.0 Class 3 Examination Summary

4.1 Class 3 Examination Completion Status
3rd Period, 5th Refueling

CODE ITEM NO.	TOTAL EXAMS SELECTED FOR INTERVAL	EXAMS COMPLETED FIFTH REFUELING	TOTAL EXAMS COMPLETED TO DATE	% EXAMS COMPLETED TO DATE	COMMENTS
Cat. F-A	10	0	6	60	
Cat. F-C	591	114	498	84	

4.2 Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	CCRR-0014	N/A	16"D	CS	
		CCRR-0032	N/A	16"D	CS	
		CCRR-0033	N/A	16"D	CS	
		CCRR-0060	N/A	20"D	CS	
		CCRR-0061	N/A	20"D	CS	
		CCRR-0063	N/A	20"D	CS	
		CCRR-0065	N/A	20"D	CS	
		CCRR-0066	N/A	20"D	CS	
		CCRR-0182	N/A	16"D	CS	SEE PARA. 4.3.1
		CCRR-G183	N/A	16"D	CS	
		CCRR-0184	N/A	16"D	CS	
		CCRR-0418	N/A	16"D	CS	
		CCRR-0419	N/A	16"D	CS	
		CCRR-0438	N/A	20"D	CS	
		CCRR-0439	N/A	20"D	CS	
		CCRR-0440	N/A	20"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	CCRR-0441	N/A	20"D	CS	
		CCRR-0442	N/A	20"D	CS	
		CCRR-0455	N/A	16"D	CS	SEE PARA. 4.3.2
		CCRR-0456	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0457	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0458	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0459	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0460	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0461	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0462	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0463	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0464	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.1
		CCRR-0466	N/A	6"D	CS	SEE PARA. 4.3.3
		CCRR-0467	N/A	6"D	CS	LIMITED EXAM
		CCRR-0468	N/A	6"D	CS	LIMITED EXAM
		CCRR-0469	N/A	6"D	CS	LIMITED EXAM
		CCRR-0470	N/A	6"D	CS	LIMITED EXAM
		CCRR-0472	N/A	6"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	CCRR-0475	N/A	6"D	CS	
		CCRR-0476	N/A	6"D	CS	
		CCRR-0477	N/A	6"D	CS	
		CCRR-0479	N/A	6"D	CS	
		CCRR-0480	N/A	6"D	CS	
		CCRR-0521	N/A	6"D	CS	
		CCRR-0522	N/A	6"D	CS	
		CCRR-0523	N/A	6"D	CS	
		CCRR-0524	N/A	6"D	CS	
		CCRR-0525	N/A	6"D	CS	
		CCRR-0538	N/A	6"D	CS	
		CCRR-0539	N/A	6"D	CS	
		CCRR-0625	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.2
		CCRR-0626	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.2
		CCRR-0627	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.2
		CCRR-0628	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.2
		CCRR-0677	N/A	16"D	CS	
		CCRR-0678	N/A	16"D	CS	
		CCRR-0679	N/A	16"D	CS	
		CCRR-0680	N/A	16"D	CS	
		CCRR-0701	N/A	16"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	CCRR-0702	N/A	16"D	CS	
		CCRR-0703	N/A	16"D	CS	
		CCRR-0704	N/A	16"D	CS	
		CCRR-0705	N/A	16"D	CS	
		CCRR-0706	N/A	16"D	CS	
		CCRR-0721	N/A	20"D	CS	
		CCRR-0727	N/A	20"D	CS	
		CCRR-0728	N/A	20"D	CS	
		CCRR-0729	N/A	20"D	CS	
		CCRR-0757	N/A	16"D	CS	
		CCRR-0758	N/A	16"D	CS	SEE PARA. 4.3.4
		CCRR-0759	N/A	16"D	CS	
		CCRR-0760	N/A	16"D	CS	
		CCRR-0816	N/A	20"D	CS	
		CCRR-0817	N/A	20"D	CS	
		CCRR-0818	N/A	20"D	CS	
		CCRR-0819	N/A	20"D	CS	
		CCRR-0820	N/A	20"D	CS	
		CCRR-0821	N/A	16"D	CS	
		CCRR-0822	N/A	16"D	CS	
		CCRR-0823	N/A	16"D	CS	
		CCRR-0838	N/A	20"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	CCRR-0949	N/A	20"D	CS	
		CCRR-1068	N/A	6"D	CS	LIMITED EXAM SEE PARA. 4.3.5
		CCRR-1089	N/A	6"D	CS	
		CCRR-1090	N/A	6"D	CS	
		CCRR-1105	N/A	6"D	CS	SEE PARA. 4.3.6
		CCRR-1112	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA 4.4.2
		CCRR-1119	N/A	10"D	CS	SEE PARA. 4.3.7
		CCRR-1120	N/A	10"D	CS	
		CCRR-1201	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA 4.4.2
		CCRR-3065	N/A	20"D	CS	
		CCRR-3090	N/A	16"D	CS	
		CCRR-4559	N/A	16"D	CS	
		CCSH-0950	N/A	20"D	CS	SEE PARA. 4.3.8
		CCSH-1176	N/A	10"D	CS	
		FWRR-0271	N/A	6"D	CS	
		FWRR-0272	N/A	6"D	CS	
		FWRR-0273	N/A	6"D	CS	
		FWRR-0274	N/A	6"D	CS	
		FWRR-0284	N/A	6"D	CS	
		FWRR-0285	N/A	6"D	CS	
		FWRR-0286	N/A	6"D	CS	
		FWRR-0287	N/A	6"D	CS	

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4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	FWRR-0288	N/A	6"D	CS	
		FWRR-0289	N/A	6"D	CS	
		FWRR-0290	N/A	6"D	CS	
		FWRR-0291	N/A	6"D	CS	
		FWRR-0299	N/A	4"D	CS	
		FWRR-0300	N/A	4"D	CS	
		MSRR-0253	N/A	6"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0256	N/A	6"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0257	N/A	6"D	CS	
		MSRR-0258	N/A	6"D	CS	
		MSRR-0259	N/A	6"D	CS	
		MSRR-0260	N/A	6"D	CS	SEE PARA. 4.3.10
		MSRR-0261	N/A	6"D	CS	
		MSRR-0262	N/A	6"D	CS	SEE PARA. 4.3.11
		MSRR-0263	N/A	6"D	CS	SEE PARA. 4.3.12
		MSRR-0264	N/A	6"D	CS	
		MSRR-0265	N/A	6"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0266	N/A	6"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0267	N/A	6"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0268	N/A	6"D	CS	SEE PARA. 4.3.14

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'J Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	MSRR-0269	N/A	6"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0270	N/A	6"D	CS	
		MSRR-0271	N/A	6"D	CS	
		MSRR-0272	N/A	6"D	CS	
		MSRR-0273	N/A	6"D	CS	SEE PARA. 4.3.15
		MSRR-0274	N/A	6"D	CS	
		MSRR-0275	N/A	6"D	CS	
		MSRR-0276	N/A	6"D	CS	
		MSRR-0277	N/A	8"D	CS	
		MSRR-0278	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0279	N/A	8"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0280	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0281	N/A	8"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0282	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0283	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0284	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0285	N/A	8"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1
		MSRR-0286	N/A	8"D	CS	SUCCESSIVE EXAM; SEE PARA. 4.5.1

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD, ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	MSRR-0288	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0289	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0290	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0291	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0293	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0297	N/A	6"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0300	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0301	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0302	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0303	N/A	16"D	CS	
		MSRR-0304	N/A	16"D	CS	
		MSRR-0305	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-0306	N/A	16"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-3071	N/A	16"D	CS	
		MSRR-3077	N/A	4"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3
		MSRR-3078	N/A	4"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3

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4.2 Cont'd Class 3 Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
F-C	N/A	MSRR-3u81	N/A	8"D	CS	ADDITIONAL EXAM; SEE PARA. 4.4.3 ADDITIONAL EXAM; SEE PARA. 4.4.3 ADDITIONAL EXAM; SEE PARA. 4.4.3 ADDITIONAL EXAM; SEE PARA. 4.4.3 SUCCESSIVE EXAM; SEE PARA. 4.5.1 SEE PARA. 4.3.18
		MSRR-3082	N/A	8"D	CS	
		MSRR-3083	N/A	4"D	CS	
		MSRR-3085	N/A	1"D	CS	
		MSRR-4059	N/A	6"D	CS	
		MSRR-4060	N/A	6"D	CS	
		MSRR-4061	N/A	6"D	CS	
		MSRR-4062	N/A	5"D	CS	
		MSRR-4063	N/A	6"D	CS	
		MSSH-0255	N/A	6"D	CS	

4.3 Abstract of Conditions Noted and Corrective Actions Taken

- 4.3.1 Component Support No. CCRR-0182: Visual examination (VT-3) revealed clamp to strut misalignment. The clamp was realigned and the support was reexamined and determined acceptable. See paragraph 4.4.1 for additional examinations required per IWF-2430(a).
- 4.3.2 Component Support No. CCRR-0455: Visual examination (VT-3) revealed unacceptable gap measurements. Further examination by engineering determined the gaps to be within tolerances.
- 4.3.3 Component Support No. CCRR-0466: Visual examination (VT-3) revealed missing fillet welds. Further examination by engineering determined the support to be acceptable as is.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

- 4.3.4 Component Support No. CCRR-0758: Visual examination (VT-3) revealed damaged end paddles on the strut. The strut was replaced and the support was reexamined and determined acceptable. See paragraph 4.4.1 for additional examinations required per IWF-2430(a).
- 4.3.5 Component Support No. CCRR-1068: Visual examination (VT-3) revealed fillet welds in wrong location. Further examination by engineering determined the support to be acceptable as is.
- 4.3.6 Component Support No. CCRR-1105: Visual examination (VT-3) revealed unacceptable gap measurements. Further examination by engineering determined the gaps to be within tolerance.
- 4.3.7 Component Support No. CCRR-1119: Visual examination (VT-3) revealed missing retaining rings on clevis pins. Retaining rings were installed and the support was reexamined and determined acceptable. See paragraph 4.4.2 for additional examinations required per IWF-2430(a).
- 4.3.8 Component Support No. CCSR-0950: Visual examination (VT-3) revealed the data plates to be painted over (unable to verify spring setting). The paint was removed from the data plates and the spring car settings (double spring) were verified and determined acceptable.
- 4.3.9 Component Support No. MSRR-0253: Visual examination (VT-3) revealed clamp to strut misalignment and a missing cotter pin. The clamp was realigned and a cotter pin was installed. The support was reexamined and determined acceptable. This support was examined as a successive exam in accordance with IWF-2420(b). See Para. 4.5.1 for details. Also, see paragraph 4.4.3 for additional examinations required per IWF-2430(a).
- 4.3.10 Component Support No. MSRR-0260: Visual examination (VT-3) revealed a missing bolt on anchor plate and a weld to embed plate which is not shown on design drawing. Further examination by engineering determined the support to be per design.
- 4.3.11 Component Support No. MSRR-0262: Visual examination (VT-3) revealed heavy rust on rear brackets and paddles. Engineering evaluation determined the condition to be acceptable. However, the support will be cleaned and repainted during Refuel 6.
- 4.3.12 Component Support No. MSRR-0263: Visual examination (VT-3) revealed heavy rust on support. Engineering evaluation determined the condition to be acceptable. However, the support will be cleaned and repainted during Refuel 6.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

- 4.3.13 Component Support No. MSRR-0267: Visual examination (VT-3) revealed heavy rust on support. Engineering evaluation determined the condition to be acceptable. However, the support will be cleaned and repainted during Refuel 6.
- 4.3.14 Component Support No. MSRR-0268: Visual examination (VT-3) revealed a loose locknut. The locknut was tightened and the support was reexamined and determined acceptable. See paragraph 4.4.3 for additional examinations required per IWF-2430(a).
- 4.3.15 Component Support No. MSRR-0273: Visual examination (VT-3) revealed clamp to strut misalignment which caused the strut paddle to be bent. Also, the structural steel appeared to be distorted. Engineering evaluation determined the structural steel to be acceptable. However, the strut was replaced and the support was reexamined and determined acceptable. See paragraph 4.4.3 for additional examinations required per IWF-2430(a).
- 4.3.16 Component Support No. MSRR-0291: Visual examination (VT-3) revealed an improperly installed cotter pin. The cotter pin was replaced and the support was reexamined and determined acceptable.
- 4.3.17 Component Support No. MSRR-0297: Visual examination (VT-3) revealed a cotter pin that had corroded off. New cotter pins and retaining rings were installed and the support was reexamined and determined acceptable.
- 4.3.18 Component Support No. MSRR-4061: Visual examination (VT-3) revealed clamp to strut misalignment. Engineering evaluation determined the condition to be within design tolerances.

4.4 Additional Examinations

As required by IWF-2430(a), additional examinations were performed when component supports which required corrective measures in accordance with the provisions of IWF-3000 were discovered. Details of the selection process and additional examinations performed are discussed below. No credit toward completion is taken for additional exams.

- 4.4.1 Component Support No. CCRR-0182 and CCRR-0758: These supports are rigid restraints which support the Auxiliary Component Cooling Water (ACCW) Pump B discharge line to Component Cooling Water (CCW) Heat Exchanger B. Examination results of these supports required corrective measures to be taken, therefore IWF-2430 applies. All adjacent supports were examined and accepted as part of the original scope. It was determined that 25 component supports of similar type,

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.4.1 (Cont'd)

design and function were examined during Refuel 5. Therefore 25 additional component supports were required to be examined per IWF-2430. However, only 9 other similar supports exist, therefore all remaining supports of similar type, design and function were examined with no additional discrepancies noted. The following is a list of the additional supports:

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
CCRR-0456	F-C	4305-5700	ACCEPTABLE
CCRR-0457	F-C	4305-5700	ACCEPTABLE
CCRR-0458	F-C	4305-5701	ACCEPTABLE
CCRR-0459	F-C	4305-5701	ACCEPTABLE
CCRR-0460	F-C	4305-5701	ACCEPTABLE
CCRR-0461	F-C	4305-5701	ACCEPTABLE
CCRR-0462	F-C	4305-5701	ACCEPTABLE
CCRR-0463	F-C	4305-5701	ACCEPTABLE
CCRR-0464	F-C	4305-5701	ACCEPTABLE

4.4.2 Component Support No. CCRR-1119: Examination results required retaining rings to be installed on the clevis pins, therefore, IWF-2430 applies. One of the adjacent supports (CCRR-1201) was examined and accepted in accordance with IWF-2430. The other adjacent support (CCRR-1121) is located inside of a penetration which is protected by a fireseal and therefore could not be examined.

Support No. CCRR-1119 is a rigid restraint which supports a Component Cooling Water (CCW) line to the Circulating Water Discharge Header. It was determined that 5 supports of similar type, design and function were examined during Refuel 5. Therefore, 5 additional supports were selected for examination in accordance with IWF-2430. The following is a list of the additional supports:

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
CCRR-0625	F-C	4305-6259	ACCEPTABLE
CCRR-0626	F-C	4305-6259	ACCEPTABLE
CCRR-0627	F-C	4305-6259	ACCEPTABLE
CCRR-0628	F-C	4305-6259	ACCEPTABLE
CCRR-1112	F-C	4305-6259	ACCEPTABLE

4.4.3 Component Support No. MSRR-0253, MSRR-0268 and MSRR-0273: These supports are rigid restraints which support a Main Steam supply line to Emergency Feedwater (EFW) Pump A/B.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.4.3 (Cont'd)

Examination results required corrective measures to be taken on MSRR-0268, MSRR-0253 and MSRR-0273. Therefore, the provisions of IWF-2430 apply to each of these supports. All adjacent supports were examined as part of the original outage scope. The adjacent supports were MSRR-0269, MSRR-4059, MSRR-4060, MSRR-4061 and MSSH-0255. Examination of MSRR-4061 revealed strut to clamp misalignment, however, an engineering evaluation determined the condition to be within design tolerances (see Para. 4.3.18). All other adjacent supports were also determined acceptable.

A total of 32 supports similar in type, design and function were examined during Refuel 5. Therefore, 32 additional examinations were required to be performed per IWF-2430. However, only 25 other similar supports exist, therefore all remaining supports of similar type, design and function were examined. The following is a list of the additional supports:

SUPPORT NO.	CODE CAT.	DRAWING NO.	RESULTS
MSRR-0256	F-C	4305-6915	ACCEPTABLE
MSRR-0265	F-C	4305-6915	ACCEPTABLE
MSRR-0266	F-C	4305-6915	ACCEPTABLE
MSRR-0278	F-C	4305-6916	ACCEPTABLE
MSRR-0280	F-C	4305-6912	ACCEPTABLE
MSRR-0282	F-C	4305-6912	ACCEPTABLE
MSRR-0283	F-C	4305-6912	ACCEPTABLE
MSRR-0284	F-C	4305-6912	ACCEPTABLE
MSRR-0288	F-C	4305-6912	ACCEPTABLE
MSRR-0289	F-C	4305-6912	ACCEPTABLE
MSRR-0290	F-C	4305-6912	ACCEPTABLE
MSRR-0291	F-C	4305-6912	ACCEPTABLE*
MSRR-0293	F-C	4305-6912	ACCEPTABLE
MSRR-0297	F-C	4305-6914	ACCEPTABLE**
MSRR-0300	F-C	4305-6913	ACCEPTABLE
MSRR-0301	F-C	4305-6913	ACCEPTABLE
MSRR-0302	F-C	4305-6913	ACCEPTABLE
MSRR-0305	F-C	4305-6913	ACCEPTABLE
MSRR-0306	F-C	4305-6913	ACCEPTABLE
MSRR-3077	F-C	4305-6912	ACCEPTABLE
MSRR-3078	F-C	4305-6912	ACCEPTABLE
MSRR-3081	F-C	4305-6912	ACCEPTABLE
MSRR-3082	F-C	4305-6912	ACCEPTABLE
MSRR-3083	F-C	4305-6912	ACCEPTABLE
MSRR-3085	F-C	ESSE-MS-103	ACCEPTABLE

* See Para. 4.3.16

** See Para. 4.3.17

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

4.5 Successive Examinations

4.5.1 As required by IWF-2420(b), successive examinations were performed during Refuel 5 on items which failed to meet established acceptance criteria during the second inspection period. The Class 3 items which were examined per IWF-2420(b) are listed as follows:

COMPONENT I.D. NO	COMPONENT DESCRIPTION	DRAWING NO	PREVIOUS EXAM	RESULTS
CCRR-0838	Rigid Restraint	4305-6375	Refuel 3	Acceptable
MSRR-0253	Rigid Restraint	4305-6915	Refuel 3	Unacceptable
MSRR-0267	Rigid Restraint	4305-6915	Refuel 3	Acceptable*
MSRR-0269	Rigid Restraint	4305-6915	Refuel 3	Acceptable
MSRR-0279	Rigid Restraint	4305-6916	Refuel 3	Acceptable
MSRR-0281	Rigid Restraint	4305-6912	Refuel 3	Acceptable
MSRR-0285	Rigid Restraint	4305-6912	Refuel 3	Acceptable
MSRR-0286	Rigid Restraint	4305-6912	Refuel 3	Acceptable
MSRR-4059	Rigid Restraint	4305-6916	Refuel 3	Acceptable

* See Para. 4.3.13

Examination results from MSRR-0253 required clamp to strut realignment (See Para. 4.3.9), therefore this support will be reexamined in the first inspection period of the second ten year interval as required by IWF-2420. The remaining successive examinations did not result in additional corrective measures to be taken. Therefore, as allowed by IWF-2420(c) the inspection frequency for these supports will revert to the original ten year schedule.

4.5.2 Successive examinations will be performed on the Class 3 component supports which required corrective measures in accordance with the provisions of IWF-3000. The following Class 3 component supports will be reexamined during the first inspection period of the second ten year interval as required by IWF-2420(b):

CCRR-0182
 CCRR-0758
 CCRR-1119
 MSRR-0253*
 MSRR-0268
 MSRR-0273

* This support was examined as a successive examination (IWF-2420) during Refuel 5 and rejected.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

5.0 Supplemental/Augmented Examination Summary

5.1 Supplemental/Augmented Examination Completion Status
3rd Period, 5th Refueling

CODE ITEM NO.	TOTAL EXAMS SELECTED FOR INTERVAL	EXAMS COMPLETED FIFTH REFUELING	TOTAL EXAMS COMPLETED TO DATE	% EXAMS COMPLETED TO DATE	COMMENTS
C5.11 Sup.	87	8	87	100	
C5.11 Aug.	4	2	4	100	
C5.21 Aug.	110	22	95	86	
C5.22 Aug.	20	4	17	85	
Cat. 5 Aug.	4	0	2	50	

5.2 Supplemental/Augmented Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
SUPPLEMENTAL PROGRAM						
C-F	C5.11	61-046	2-4104	20"D	SS	
		61-047	2-4104	20"D	SS	
		61-051	2-4108	14"D	SS	
		61-053	2-4108	14"D	SS	
		61-071	2-4108	14"D	SS	
		62-041	2-4207	10"D	SS	
		62-047	2-4207	10"D	SS	
		62-048	2-4207	10"D	SS	
AUGMENTED PROGRAM						
C-F	C5.11	52-001	2-4206	14"D	SS	LIMITED EXAM
		52-002	2-4206	14"D	SS	LIMITED EXAM
	C5.21	42-003	2-4200	34"D	CS	
		42-005	2-4200	34"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

5.2 Cont'd Supplemental/Augmented Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
C-F	C5.21	42-006	2-4200	40"D	CS	
		42-008	2-4200	40"D	CS	
		42-010	2-4200	40"D	CS	
		42-016	2-4200	40"D	CS	
		45-013	2-4102	20"D	CS	
		45-014	2-4102	20"D	CS	
		45-016	2-4102	20"D	CS	
		45-017	2-4102	20"D	CS	
		46-004	2-4202	20"D	CS	
		46-010	2-4202	20"D	CS	
		55-068	2-4113	8"D	SS	LIMITED EXAM
		55-070	2-4113	8"D	SS	LIMITED EXAM
		55-071	2-4113	8"D	SS	
		55-072	2-4113	6"D	SS	
		55-073	2-4113	8"D	SS	
		55-074	2-4113	8"D	SS	
		55-075	2-4113	8"D	SS	LIMITED EXAM
		55-077	2-4113	8"D	SS	
		56-049	2-4211	8"D	SS	
		56-050	2-4211	8"D	SS	LIMITED EXAM
	C5.22	42-004LA	2-4200	34"D	CS	
		42-004LB	2-4200	34"D	CS	

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

5.2 Cont'd Supplemental/Augmented Items Examined 5th Refueling

CODE CATEGORY	CODE ITEM #	WELD/ ITEM #	DRAWING	SIZE	MATERIAL	COMMENTS
C-F	C5.22	42-009LA	2-4200	40"D	CS	
		42-009LB	2-4200	40"D	CS	

5.3 Abstract of Conditions Noted and Corrective Actions Taken

5.3.1 ISI examinations did not identify any conditions on Supplemental/Augmented items which exceeded the allowable standards in IWB-3000.

5.4 Additional Examinations

5.4.1 Additional examinations were not required on Supplemental/Augmented items.

5.5 Successive Examinations

5.5.1 There were no successive examinations performed per IWC-2420(b) on Supplemental/Augmented items during Refuel 5.

5.5.2 There were no Supplemental/Augmented items which met the criteria of IWC-2420(b) during Refuel 5. Therefore, no successive examinations will be required in future refueling outages.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

6.0 Pressure Testing Summary

As required by ASME Section XI and Sections 2.2, 3.2 and 4.3 of the Waterford 3 Ten Year Inservice Inspection Program, VT-2 examinations were conducted during the performance of system pressure tests. No through-wall pressure boundary leakage was identified. Other leakage (packing, gaskets, etc.) and boric acid residue was documented on Condition Identifications (CIs) for evaluation and/or corrective action.

6.1 Hydrostatic Testing

The following components/subsystems were hydrostatically tested during Refuel 5:

- o Auxiliary Component Cooling Water System Train A from CCW Heat Exchanger A Outlet Isolation Valve to Wet Cooling Tower A
- o Auxiliary Component Cooling Water System Train B from CCW Heat Exchanger B Outlet Isolation Valve to Wet Cooling Tower B
- o Chilled Water Train A & A/B
- o Chilled Water Train B
- o Component Cooling Water Train B
- o Nitrogen Accumulator #1 (Pneumatic)
- o Nitrogen Accumulator #2 (Pneumatic)
- o Nitrogen Accumulator #3 (Pneumatic)
- o Nitrogen Accumulator #4 (Pneumatic)
- o Nitrogen Accumulator #5 (Pneumatic)
- o Nitrogen Accumulator #6 (Pneumatic)
- o Nitrogen Accumulator #7 (Pneumatic)
- o Nitrogen Accumulator #8 (Pneumatic)
- o Instrument Air/Nitrogen Accumulator #1 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #2 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #3 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #4 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #5 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #6 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #7 Valve Operating Header
- o Instrument Air/Nitrogen Accumulator #8 Valve Operating Header

6.2 Normal Operating Pressure Testing

The Class 1 System Leakage Test which is required at start-up following each refueling outage was completed. The VT-2 exam boundary included the Class 1 Reactor Coolant System with all valves in normal position required for reactor start-up.

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

6.2 Cont'd Normal Operating Pressure Testing

All forty-month examinations (Class 2 and 3) which were required to be performed during the second inspection period were completed prior to the end of the period (5/25/92). No forty-month examinations (Class 2 and 3) have been performed during the third inspection period. The following is a list of the Class 2 and 3 normal operating pressure tests that were conducted subsequent to start-up from Refuel 4 (5/21/91) and prior to the end of the second inspection period (5/25/92):

<u>PRESSURE TEST NO.</u>	<u>DESCRIPTION</u>
1.1(a)	Steam Generator System (RAB only)
1.1(c)	Charging (RAB only)
1.1(d)	Sampling (RAB only)
1.2	Charging Train "A" (RAB only)
1.3	Charging Train "A/B" (RAB only)
1.4	Charging Train "B" (RAB only)
1.5	CCW "A" (RAB only)
1.6	CCW "B" (RAB only)
1.7	ACCW Train "A"
1.8	ACCW Train "B"
1.9	N ₂ Accumulator I
1.10	N ₂ Accumulator II
1.11	N ₂ Accumulator III
1.12	N ₂ Accumulator IV
1.13	N ₂ Accumulator V & IX
1.14	N ₂ Accumulator VI
1.15	N ₂ Accumulator VII
1.16	N ₂ Accumulator VIII
1.17	Fuel Pool Cooling Train "A"

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

6.2 Cont'd Normal Operating Pressure Testing

PRESSURE TEST NO.	DESCRIPTION
1.19	HVAC/Chilled Water System
1.20	Chilled Water Train "A"
1.21	Chilled Water Train "B"
1.22	Diesel Oil Storage Tank "A"
1.23	Diesel Oil Storage Tank "B"
1.24	Refueling Water Storage Pool (RWSP)
1.25	EFW Between Flow Control and Isol. Valves
2.2	HPSI "B" SI Recirc.
2.4	CS Train "A"
2.5	CS Train "B"
2.6	EFW Train "A"
2.7	EFW Train "B"
2.8	EFW Train "A/B"
2.9	BAM Tank "A"
2.10	BAM Tank "B"
2.11	Diesel Oil Transfer Pump "A"
2.12	EDG Train "A"
2.13	Diesel Oil Transfer Pump "B"
2.14	EDG Train "B"
2.15	CCW Make-up
2.17	Chilled Water Train "A/B"
3.1(a)	LPSI Train "A" RAB
3.1(b)	LPSI Train "A" RCB
3.2(a)	LPSI Train "B" RAB
3.2(b)	LPSI Train "B" RCB

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

7.0 NIS-2 Forms

The following NIS-2 forms document the ASME Class 1 and 2 repair and replacement activities performed between 05/21/91 and 11/6/92:

<u>NIS-2 No.</u>	<u>WA No.</u>	<u>CI No.</u>	<u>Description</u>
92-101	01089740	278844	Partial Replacement S/G #1
	01090472	279132	Repair S/G #2
	01090473	279131	Repair S/G #1
	01089915	278908	Partial Replacement S/G #2
	01099258	000298	Partial Replacement S/G #2
	01101374	282548	Partial Replacement S/G #2
92-102	01100673	282287	Partial Replacement PZR
92-103	01092221	016596	Partial Replacement CHSR-564
92-104	01094356	000947	Replacement RC-317A
	01094355	000948	Replacement RC-317B
92-105	01101543	282875	Repair Reactor Vessel
	01101576	282873	Repair Reactor Vessel
92-106	01082087	276830	Partial Replacement SI-512B
92-107	01099476	274893	Partial Replacement Pressurizer Heaters
92-108	99003376	281814	DC-3376 Valve Packing Enhancement Partial Replacement SI-302
		281822	DC-3376 Valve Packing Enhancement Partial Replacement SI-331B
		281821	DC-3376 Valve Packing Enhancement Partial Replacement SI-331A
		281823	DC-3376 Valve Packing Enhancement Partial Replacement SI-332B

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

7.0 NIS-2 Forms (Cont'd)

NIS-2 No.	WA No.	CI No.	Description
92-109	01078224	275825	Partial Replacement SI-143A
92-201	01055676	267147	Partial Replacement CVC-188 A/B
92-202	01053783	270824	Partial Replacement CVC-192 A/B
92-203	01074068	274065	Partial Replacement CVC-192B, 2CH1 1/2-154B, 2CH2-153B
92-204	01088787	278003	Partial Replacement CVC Pump 1AB
	01092209	279747	Partial Replacement CVC Pump 1B
92-205	99000414	274618	Snubber Replacement MSSR-3073
92-206	01071882	273335	Partial Replacement RC-317A
92-207	01082058	276787	Partial Replacement CVC-192A
92-208	01063145	270731	Repair Line 2CH4-41B
92-209	011000704	282264	Replacement SI-343
92-210	01085243	277467	Repair CVC-109
92-211	01089618	277077	Partial Replacement CC-710
92-212	01086862	278188	Partial Replacement MS-115B
92-213	01100672	282262	Repair/Partial Replacement SI-344
92-214	01092960	279405	Repair/Partial Replacement SI-225B
	01083703	277384	Repair SI-227A
92-215	01086461	275657	Replacement SI-108A
	01086436	275656	Replacement SI-108B
92-216	01095681	015673	Partial Replacement SI-604A
92-217	01091726	019041	Partial Replacement CS-110B
92-218	01058579	266539	Partial Replacement FP-601A
	01097928	281041	Partial Replacement FP-601B

FIFTH REFUELING INSERVICE INSPECTION SUMMARY REPORT

7.0 NIS-2 Forms (Cont'd)

NIS-2 No.	WA No.	CI No.	Description
92-219	99003376	281818	DC-3376, Valve Packing Enhancement, Partial Replacement SI-307A
		281819	DC-3376, Valve Packing Enhancement, Partial Replacement SI-307B
		281820	DC-3376, Valve Packing Enhancement, Partial Replacement SI-308B

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

1. Owner Entergy Operations, Inc. Date December 15, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 See Remarks on Page 2 for List of WA's
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SG (Steam Generator)

5. (a) Applicable Construction Code Sec III NB 1971 Edition, S71 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1950 through W81 Addenda

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)
SG No. 1	Combustion Engineering	74270-1	22156	Steam Generator	1975	Repair	No
SG No. 1	Combustion Engineering	74270-1	22156	Steam Generator	1975	Partial Replacement	No
SG No. 2	Combustion Engineering	74270-2	22157	Steam Generator	1976	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORK NIS-2 (Back)

9. Remarks WA's 01089740, 01090472, 01090473, 01089915, 01099258, 01101374

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed *Harry K. Blum* Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Bonford
Inspector's Signature

Commissions 5951 N B I S
National Board and Endorsements

Date 1-12-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Containment entries during operation showed apparent leakage from steam generator No. 1. Additional investigation showed leakage from steam generator No. 1 manway covers. Maintenance history reviews showed installation of incorrect pressure class gaskets during refueling outage four. During replacement of gaskets on WA 01089746 nine cold leg manway studs, five cold leg manway nuts and two hot leg manway studs were found to have damaged threads. Due to damaged threads these studs and nuts were replaced. Replacement manway studs and nuts were VT-1 examined. During gasket replacement corrosion was identified on primary manway head and cold leg cover due to gasket leakage. These were evaluated and repaired on WA 01090473 and 01090472 respectively. Repair areas were examined using a magnetic particle (MT) method with satisfactory results. Following manway cover and head corrosion repair and reassembly using replacement manway studs and nuts, pressure testing at normal operating pressure was found satisfactory using VT-2 leakage inspection criteria.

Investigation of installation of incorrect pressure class gaskets on steam generator No. 1 revealed installation of incorrect pressure class gaskets on steam generator No. 2 also. During replacement of gaskets on steam generator No. 2 on WA 01089915 five manway studs and four manway nuts were found to have damaged threads. Due to damaged threads these studs and nuts were replaced. Replacement manway studs and nuts were VT-1 examined. Following reassembly using replacement manway studs and nuts pressure testing at normal operating pressure was found satisfactory using VT-2 leakage inspection criteria.

During refuel 5 steam generator No. 2 manway covers were removed for tube eddy current inspection. One manway stud was found stuck and seven other studs were found to have minor thread damage. Therefore, eight manway studs and one manway nut were replaced on WA 01099258. Replacement manway studs and nuts were VT-1 examined. Following reassembly with replaced manway studs and nuts pressure testing at normal operating pressure was found satisfactory using VT-2 leakage inspection criteria.

Removal of a stuck stud on steam generator No. 2 required replacement of a previously installed helicoil insert. Helicoil replacement was accomplished on WA 01101374. ASME Section XI Code Case N-496 was used for helicoil installation. Following helicoil replacement pressure testing at normal operating system pressure was found satisfactory using VT-2 leakage inspection criteria on WA 01099258.

Steam Generator manway stud, nut and helicoil certifications are filed in records as follows:

Manway Studs:

PO W44145 MRIR M05987 FAN 4944-1599
PO W44448 MRIR M07304

Manway Nuts:

PO A75614 MRIR 0075-80 FAN 0601-1905
PO W22172 MRIR M01941 FAN 3525-1254
PO W45032 MRIR M04933 FAN 5076-1285

Helicoil Insert:

PO W48395 MRIR M04048

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

1. Owner Entergy Operations, Inc. Date December 16, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01100673
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System RC (Reactor Coolant)
5. (a) Applicable Construction Code Sec. III NB 1971 Edition, S71 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
RC MPZR0001	Combustion Engineering	74370	21682	Pressurizer	1975	Partial Replacement	No

7. Description of Work: See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-4-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co. * of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Removal of pressurizer manway cover was required during refueling outage 5 to provide a reactor coolant system vent path. Inspection of manway studs showed minor thread pitting and galling on eight manway studs and two manway nuts. Therefore, these were replaced with spares from stores.

Prior to installation replacement studs and nuts were visually examined using VT-1 criteria. Examination results were satisfactory.

Following reassembly of manway pressure testing at normal operating pressure conditions was conducted using VT-2 leakage acceptance criteria. Pressure testing results were acceptable.

Material certification for replacement items is filed as follows:

Studs: PO L47786 MRIR 8048-84 FAN 1248-0191

Nuts: PO A75614 MRIR 0104-80 FAN 0601-1952

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

1. Owner Entergy Operations, Inc. Date December 16, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01092221
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NB 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through WB1 Addenda

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)
CHSR-564	Pacific Scientific	3651	NA	Snubber	NA	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-4-93

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 of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During replacement of valve operator parts for letdown to regenerative heat exchanger from reactor coolant loop (CVCMVAA:101) testing of operator snubber CHSR-564 was performed. Testing and valve operator parts replacement required snubber removal. Snubber mounting pins were lost. Therefore, snubber mounting pins were replaced. Installation of snubber with new mounting pins was satisfactorily visually verified per PE-005-011.

Material certification for replacement snubber mounting pins is filed as follows:

TR 5355 MRIR 7940-87 FAN 3031-1057 PO WP3-6640 MRIR 82-02788 FAN 0866-1762

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

1. Owner Entergy Operations, Inc. Date December 21, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA's 01094356 and 01094355
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System RC (Reactor Coolant)

5. (a) Applicable Construction Code Sec. III NB 1974 Edition, 576 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
W81 Addenda

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)
RC MVA317 A	Dresser	BS-08031	NA	Valve IRC-R2573A	1979	Replaced	No
RC MVA317 A	Dresser	BW-09724	NA	Valve IRC-R2573A	1985	Replacement	No
RC MVA317 B	Dresser	BS-08030	NA	Valve IRC-R2574B	1979	Replaced	No
RC MVA317 B	Dresser	BS-01593	NA	Valve IRC-R2574B	1978	Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. Blum Jr Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Benford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During refueling outage five both pressurizer safety valves were removed and replaced with spare valves. Replacement valves were reworked and tested with satisfactory results prior to installation. Removed valves will be tested and reworked as necessary.

Following installation and return to service replacement valves were pressure tested at normal operating pressure. Examination for leakage during pressure testing using VT-2 leakage criteria was satisfactory.

Copies of Code Data Reports for replaced and replacement valves are contained in NIS-2 91-022 and 91-023.

Certification for rework and testing of replacement valves is contained in PO W42268 MRIR M06507.

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

1. Owner Entergy Operations, Inc. Date December 21, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA's 01101543 and 01101576
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System RC (Reactor Coolant)

5. (a) Applicable Construction Code Sec III NB 1971 Edition, S71 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
RC MRCT0001	Combustion Engineering	74170	21694	Reactor Vessel	1976	Repair	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this

repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. Blain J Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

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Harry J. Blain J
Inspector's Signature

Commissions 5951 N.B.I.S
National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During reactor vessel disassembly for refueling outage five an indication was found on vessel flange and head sealing areas. Investigation showed a small piece of metal had apparently been left in this area and crushed during reactor vessel assembly during refuel four. Investigation showed minor damage to O-ring grooves in head and O-ring sealing areas on vessel flange.

Damage areas were documented, evaluated and repaired on WA 01101576 for head and 01101543 for flange. Repaired areas were examined visually and using liquid penetrant (PT). Following return to service a leak test of reactor coolant system at normal operating pressure using procedure OP-903-024 provided satisfactory results.

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

1. Owner Entergy Operations, Inc. Date January 14, 1993
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01082087
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)

5. (a) Applicable Construction Code Sec III NB 1971 Edition, W72 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
SI MVA512 B	Anchor Darling	E-6373-1-4	NA	Valve 1SI-V2509	1979	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-14-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

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[Signature] Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-15-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

High pressure safety injection header to reactor coolant loop 2 hotleg injection check valve (SI MVA512 B) was found to have a hinge pin cover leak. Hinge pin cover gasket on this valve was recently replaced. Investigation showed hinge pin cover bolting to not provide sufficient strength to allow full compression of gasket. Therefore, hinge pin cover studs and nuts were change to a material providing additional strength necessary to adequately compress gasket.

Pressure testing was performed at normal operating pressure conditions following hinge pin stud and nut replacement. Inspection for leakage to VT-2 criteria during pressure testing was satisfactory.

Material certification for replacement studs and nuts is filed as follows:

Studs:

Rod, threaded 3/8" 16 tpi SA564 Gr. 630 Ht. 1100
PO W44437 MRIR M07308 FAN 5145-0933

Nut:

Nut, hex stainless steel 3/8" 16 tpi SA194 Gr. 6
PO W41455 MRIR M00513 FAN 4704-1313

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

1. Owner Entergy Operations, Inc. Date February 2, 1993
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 6
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01099476
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System RC (Reactor Coolant)

5. (a) Applicable Construction Code Sec III NB 1971 Edition, S71 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
RC EHTR71A 3	Combustion Engineering	7	NA	Heater	1983	Replaced	No
RC EHTR71A 3	Combustion Engineering	1953	NA	Heater	1991	Replacement	No
RC EHTR72A 1	Combustion Engineering	1	NA	Heater	1983	Replaced	No
RC EHTR72A 2	Combustion Engineering	1944	NA	Heater	1991	Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks See Code Data Reports (Attachment 2)

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 2-2-93

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 of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

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[Signature]
Inspector's Signature

Commissions 5951 N B I S
National Board and Endorsements

Date 2-3-93

* Factory Mutual System

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

1. Owner: Entergy Operations, Inc
1340 Echelon Parkway, Jackson, MS 39213
Date February 2, 1993
Sheet 3 of 6
2. Plant: Waterford 3
Hwy. 18, P.O. Box B, Killona, LA 70066
WA 01099476
3. Work Performed By: Entergy Operations, Inc.
Hwy. 18, P.O. Box B, Killona, LA 70066
Type Code Stamp: None
Authorization No.: N/A
Expiration Date: N/A
4. Identification of System: RC (Reactor Coolant)
5. (a) Construction Code: ASME Section III NB 1971 Edition S71 Addenda
(b) Repair/Replacement Code: ASME Section XI 1980 Edition W81 Addenda

6. Identification of Components Repaired, Replaced and Replacement Components

<u>Name of Component</u>	<u>Name of Manufacturer</u>	<u>Manuf. Serial Number</u>	<u>Other Ident- fication</u>	<u>Year Built</u>	<u>Repaired, Replaced, Replacement</u>	<u>ASME Code Stamp</u>
RC EHTR72A 2	Combustion Engineering	6	Pressurizer Heater	1983	Replaced	No
RC EHTR72A 2	Combustion Engineering	1962	Pressurizer Heater	1991	Replacement	No
RC EHTR72A 3	Combustion Engineering	25F	Pressurizer Heater	1987	Replaced	No
RC EHTR72A 3	Combustion Engineering	1949	Pressurizer Heater	1991	Replacement	No
RC EHTR75B 4	Combustion Engineering	17	Pressurizer Heater	1983	Replaced	No
RC EHTR75B 4	Combustion Engineering	1952	Pressurizer Heater	1991	Replacement	No

Attachment 1
Description of Work
(Page 1 of 1)

During last plant operating cycle five (5) pressurizer heaters were found with grounded elements. These heaters were removed and replaced with spare heater assemblies from stores. Socket welds holding heaters in pressurizer were examined using dye penetrant method (PT) and found acceptable. Socket welds were exempt from pressure testing in accordance with IWA-4400 (b) (5).

Copies of code data reports for replacement heaters are presented in Attachment 2. Material certifications for heaters are filed as follows:

PO W19752 MRIR M04276 FAN 4361-1744

Attachment 2
Code Data Reports
Page 1 of 2

MAR 27 '91 10146 FROM CE NEWINGTON QA

Corrected Copy
See Back

FORM N-2 IN OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

1. Manufactured and verified by Power, Newington Operations, 55 Old Dover Rd, Newington, NH 03851
ABB Combustion Engineering
1000 Prospect Hill Road, Windsor, CT 06095-0500

2. Manufactured for Energy Operations, Inc., 355 N. Main St., La Grange, IL 60148
Hwy 18, Taft, LA 70066

3. Location of information 74370-685-001 item 1 SA-417T116 75,000 End Plug
REV. 03 item 2 SA-213T316 75,000 Sheath 1991

4. Type 1971 Summer 1971 1 None

5. ASME Code Section III 1971 Summer 1971 1 None

6. Fabricated in accordance with Const. Spec. ID# 1 N/A Revision N/A Date N/A

7. Remarks: ABB CE Newington was directed to follow the 1986 Edition, 86
Addenda for welding and NDE procedures.

8. Item 1 .500 .485 .044 Max. O.D. .500
 Item 2 .180 .180 .885 100.621/96.621

9. Nom. thickness (in.) .500 Min. strength thickness (in.) .485 Dia. ID (in. & in.) .885 Length overall (in. & in.) 100.621/96.621

10. When applicable: Certificate Holders' data reports are attached for each item of this report.

4325
1981
04276

Part or Appurtenance Serial Number MFG. S/N	National Stock No. in Numerical Order	Part or Appurtenance Serial Number	National Stock Number in Numerical Order
(11) 1944	None	(126)	
(12) 1945		(127)	
(13) 1946		(128)	
(14) 1947		(129)	
(15) 1948		(130)	
(16) 1949		(131)	
(17) 1950		(132)	
(18) 1951		(133)	
(19) 1952		(134)	
(20) 1953		(135)	
(21) 1954		(136)	
(22) 1955		(137)	
(23) 1956		(138)	
(24) 1957		(139)	
(25) 1958		(140)	
(26) 1959		(141)	
(27) 1960		(142)	
(28) 1961		(143)	
(29) 1962		(144)	
(30) 1963		(145)	
(31) 1964		(146)	
(32) 1965		(147)	
(33) 1966		(148)	
(34) 1967		(149)	
(35) 1968		(150)	

10. Design pressure 1500 psi Comp. 775 11. Hydro. test pressure 2125 psi Temp 78 °F

* Supplemental information in the right of this report... (1) information in report 2 and 3 on the 2019-1991...
 This report is prepared from the Order Book... 27 Low Order Book 2,000 1st Ed. 4/27/87 1-104

QA
3-27-91

Attachment 2
Code Data Reports
Page 2 of 2

CERTIFICATE OF DESIGN

Design specifications verified by _____ P.E. Code _____
 Design report verified by _____ P.E. Code _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the specifications made in this report are correct and that the product conforms to the rules of construction of the ASME Code, Section II, Part C, Division of Authorization No. H-20417 dated February 20, 1993

Date 2-14-91 Name ABB Combustion Engineering Signed S.P. Dyer

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspection, and as a holder of _____ and employed by H.S.B.T. & I. Co. of Hartford, CT have inspected those parts indicated in this data report on 2-14-91 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts in accordance with the ASME Code, Section II, Part C, Division of Authorization No. _____ and that the parts have been authorized for changing on the same above.

By signing this certificate, neither the inspector nor his employer shall be liable in any respect for any structural failure or property damage or loss of any kind arising from or connected with this inspection.

Date 2-14-91 Signed Robert A. Smith Commission No. H.S. 350

9261
1934
04276

** Responsibility of others.

THE SCOPE OF THIS N-2 DATA REPORT DOES NOT INCLUDE 7 INCHES FROM THE ELECTRODE (END). (THIS IS THE NOM-CODE BOUNDARY AREA).

*** Corrected Mfg. Serial Numbers.

S.P. Dyer P.A. Engineer 3/27/91
R. Smith A.S.I. 3/27/91
 M.N. 350
 3/27/91

DA
3-27-91

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

1. Owner Entergy Operations, Inc. Date February 2, 1993
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 99003376 281814, 281821, 281822, 281823
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)

5. (a) Applicable Construction Code Sec III NB 1971 Edition, W72 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
SI MVA3302	Velan Engineering	470-2	NA	Valve 1SI-V2505	1980	Partial Replacement	No
SI MVA331 A	Lunkenheimer	73-EB-23605-34	NA	Valve 1SI-V1505TK1A	1978	Partial Replacement	No
SI MVA331 B	Lunkenheimer	73-EB-23605-35	NA	Valve 1SI-V1506TK1B	1978	Partial Replacement	No
SI MVA332 B	Lunkenheimer	73-EB-23605-37	NA	Valve 1SI-V1508TK2B	1978	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. Blawie, Jr. Maintenance Engineer Date 2-2-93

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 of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Benford, Jr.
Inspector's Signature

Commissions 5951 N B I S
National Board and Endorsements

Date 2-3-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

As part of a plant valve packing enhancement program packing gland leak off lines are cut and capped. During packing enhancement lantern rings are removed and packing ring stack height reduced. Excess valve packing gland space is taken up using split carbon bushings. Leak off lines cut and capped are typically 1/8" to 3/4" NPS. Due to implementation of packing enhancement socket weld cap installed on leak off line from valve stuffing box becomes a pressure retaining component. Welds for installing socket weld cap are examined using dye penetrant method (PT). Based on IWA-4400 (b) (5) welds are exempt from pressure testing. However, pressure testing at normal operating pressure was performed. Inspection for leakage during pressure testing using VT-2 acceptance criteria was acceptable.

Material certification for 1/8", 1/2" and 3/4" SA182 F304 3000lb socket welded pipe caps is provided as follows:

PO L97429 MRIR 7468-86 FAN 2394-0355

TR 5911 MRIR 0629-88 FAN 3273-2251
PO WP3-8410 MRIR 82-03078 FAN 1771-2601

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

1. Owner Entergy Operations, Inc. Date February 1, 1993
Name
- 1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
- Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01078224
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address
4. Identification of System SI (Safety Injection)
5. (a) Applicable Construction Code Sec III NB 1971 Edition, W72 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda
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)
SI MVAA143 A	Anchor Darling	1N252	NA	Valve 1S1-V1519RL2A	1977	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)
8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. Blum Jr. Maintenance Engineer Date 2-1-93

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 of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Benford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 2-3-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During routine inspection of low pressure safety injection header to reactor coolant loop 2A containment penetration #38 check valve (SI MVAAL43 A) hinge pin cover studs were found with thread damage and were over stressed. Corrective action involved replacement of hinge pin cover studs. Following replacement and return to service pressure testing at normal operating pressure was conducted. Inspection for leakage during pressure testing using VT-2 criteria was satisfactory.

Material certification for replacement items is filed as follows:

PO W48260 MRIR M02481

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

1. Owner Entergy Operations, Inc. Date November 11, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01055676
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)
5. (a) Applicable Construction Code Sec III NC 1971 Edition, W72 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
CVC-188A/B	Anchor Darling	2N1132	N/A	Valve 2CH-V127A/B	1978	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)
8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 85 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 11-11-92

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period November 1989 to May 1991, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-11-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During Refuel 4 charging pump AB suction header isolation valve was reworked. This rework was performed due to identified seat and body to bonnet leakage under normal operating conditions.

During rework a satisfactory disc and seat blue check could not be obtained due to wear of seating surfaces. Therefore, a replacement disc and seat rings were obtained from material and stores and installed.

Certification of replacement gate and seat rings are found in the following records:

<u>Item</u>	<u>Purchase Order No.</u>	<u>MRIR</u>	<u>FAN</u>	<u>Serial No.</u>
Disc	L 32486	6407-84	2701-1594	U0972
Seat Ring	L 32486	6301-84	2701-1872	N/A

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

1. Owner Entergy Operations, Inc. Date November 12, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01063783
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S74 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
CVC-192A/B	Crosby	N60643-00-0002	NA	Valve 2CH-R1527A/B	1978	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2485 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Henry J. B. C. J. Maintenance Engineer Date 11-12-92

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period November 1989 to May 1991, 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.

Henry J. B. C. J. Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-12-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Charging pump AB discharge header relief valve was identified as having a upper gasket leak during normal operating conditions. The valve was disassembled for rework. During rework the disc insert was found cut beyond rework and the bellows was found to be leaking.

A replacement disc insert, disc insert pin and bellows were obtained from material and stores. The valve was reassembled using replacement parts. Following reassembly the valve was successfully bench tested and installed in the system.

Upon return to service a pressure test at normal operating pressure was performed. Examination by VT-2 was satisfactory.

Certification for replacement disc insert is filed in the following record:

Purchase Order:	W11796
Serial Number:	N91102-49-0072
MRIR:	9780-87
FAN:	2672-2057

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

1. Owner Entergy Operations, Inc. Date November 12, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01074068
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
2CH1-1/2-154B	Tompkins Bechwith	N/A	N/A	Pipe 2CH1-1/2-154B	1982	Partial Replacement	No
2CH2-153B	Tompkins Bechwith	N/A	N/A	Pipe 2CH2-153B-1	1982	Partial Replacement	No
CVC-192B	Crosby	N60641-00-0003	N/A	Valve 2CH-R1528B	1978	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 3906/94 psi Test Temp. 120 F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry H. Blum Jr. Maintenance Engineer Date 11-12-92

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Benford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-12-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During operation of positive displacement Charging Pump 1B in the Chemical Volume Control (CVC) system, the discharge relief valve, CVC-192B, is subject to constant pressure pulses from the pump. The valve is located close to the pump discharge causing the disc insert to develop leaks over time. In addition, during recent reworks it was observed that flanges installed to allow valve removal did not line up properly. This flange misalignment created valve body stress during installation that contributed to disc leakage.

Therefore, lines and flanges into and out of valve CVC-192B were reworked to eliminate misalignment. During this work CVC-192B was also reworked and required replacement of the disc insert.

The valve relief pressure was set and successfully bench tested. All welds were inspected by the liquid penetrant method (PT) satisfactorily. After assembly lines into and out of CVC-192B were satisfactorily hydrostatically tested.

Certification for replacement pipe, fittings and valve disc are filed in the following records:

Flanges 2" 150lb Sch.80 RFSW SA182F304

TR 5774 Item 4 MRIR 9509-87 FAN 3273-1377 PO WP3-349 MRIR 78-02111
FAN 0660-1660 Ht. Code HJ765

TR 5681 Item 29 MRIR 9014-87 FAN 2557-1424 PO WP3-349 MRIR 78-02111
FAN 0660-1660 Ht. Code HJ765

TR 5677 Item 26 MRIR 8853-87 FAN 3031-1296 PO WP3-3887 MRIR 80-03370
FAN 0580-0649 Ht. Code A2134

Flanges 1.5" 2500 Sch.160 RFSW SA182F304

TR 5682 Item 7 MRIR 8860-87 FAN 2557-1480 PO WP3-7635 MRIR 82-00926
FAN 0884-0008 Ht. Code A2193

Pipe 2" Sch. 80 SA376 Type 304

TR 6037 Item 1 MRIR 0082-87 FAN 3156-1558 PO WP3-3886 MRIR 80-2127
FAN 0580-0459 Ht. Code 464717

Pipe 1.5" Sch. 160 SA376 Type 304

PO W43204 Item 1 MRIR M08347 FAN 4778-1969

Disc Insert PO W11796 MRIR 9780-87 FAN 2572-2057 S/N N91102-49-0074

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

1. Owner Entergy Operations, Inc. Date November 20, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01088787 WA 01092209
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
CVCMPMPO001AB	Gaulin	611848-1	N/A	Pump	1974	Partial Replacement	No
CVCMPMPO001B	Gaulin	611851-3	N/A	Pump	1974	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed *Hugh J. Sanford* Maintenance Engineer Date 11-20-92

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh J. Sanford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-23-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During investigation of a discharge block head gasket leak on charging pump 1AB on WA 01088787 a crack was identified on one cylinder bore. Corrective action required block replacement. Crack development is attributed to inadequate radius of suction valve bore and material strength.

Block replacement was conducted using a new block design in accordance with design change DC 3254. Block replacement required replacement of a 3/4" flushing line flange and rework of flushing line piping socket welds to maintain installation configuration.

Flushing line socket welds were examined using a dye penetrant exam (PT) and found acceptable. Flushing line socket welds are exempt from hydrostatic testing per IWA-4400 (b) (5).

Complete installed replacement was pressure tested by examining for leakage using VT-2 criteria at operating pressure and found acceptable.

During packing replacement of charging pump 1B cracks were found in two cylinder block bores. Corrective action required block replacement. Block replacement was accomplished on WA 01092209. Block cracks are due to inadequate radius of suction valve bore and material strength.

Block replacement was conducted using a new block design in accordance with design change DC 3254. Block replacement required replacement of a 3/4" flushing line flange and rework of flushing line piping socket welds to maintain installation configuration.

Flushing line socket welds were examined using a dye penetrant exam (PT) and found acceptable. Flushing line socket welds are exempt from hydrostatic testing per IWA-4400 (b) (5).

Complete installed replacement was pressure tested by examining for leakage at operating pressure using VT-2 criteria and found acceptable.

Certifications for replacement components are on file in records as follows:

Flanges 3/4" 1500 lb RFSW SA182F304 HEAT A2387
TR 5736 Item 14 MRIR 9022-87 FAN 3031-1409 PO WP3-6354 MRIR 81-03091
FAN 1766-2622

Pipe 3/4" Sch. 160 SA376 Type 304 HEAT 464590
TR 3085 Item 1 MRIR 2868-85 FAN 2589-1836 PO WP3-3886 MRIR 80-02061
FAN 0580-0478

TR 6037 Item 4 MRIR 0082-87 FAN 3156-1558 PO WP3-3886 MRIR 80-02061
FAN 0580-0478

Block PO W33420 MRIR M04443 FAN 4341-1293

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

1. Owner Entergy Operations, Inc. Date November 20, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 99000414 CI 274618
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System MS (Main Steam)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through WB1 Addenda

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)
MSSR-3073	Pacific Scientific	37138	NA	Snubber/Pipe 2MS2-276	1982	Replaced	No
MSSR-3073	Pacific Scientific	37322	NA	Snubber/Pipe 2MS2-276	1982	Replacement	No

7. Description of Work See Attachment 1 (1 Page)

Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Henry H. Blum Jr. Maintenance Engineer Date 11-20-92

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period November 1989 to May 1991, 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.

Joseph S. Bedford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-23-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Snubber MSSR-3073 failed functional testing due to high final running drag forces and initial breakaway test with extension attached. Corrective action required snubber replacement. Functional testing of replacement snubber was satisfactory.

Certification of replacement snubber is contained in files as follows:

PO L105527 MRIR 7789-87 FAN 2705-0479

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

1. Owner Entergy Operations, Inc. Date November 20, 1992
Name
- 1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
- Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01071882
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System RC (Reactor Coolant)
5. (a) Applicable Construction Code Sec III NB 1971 Edition, W71 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda
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)
RC-317A	Dresser	BS-08031	NA	Valve 1RC-R2573A	1979	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)
8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 11-20-92

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 of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period November 1989 to May 1991, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 11-23-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During normal plant operation leakage past a pressurizer safety valve was identified. During a planned maintenance outage replacement of both pressurizer safety valves was performed to eliminate identified leakage. This replacement was accomplished on WA 01056125 for "A" pressurizer safety valve RC MVA317 A. During replacement valve serial no. BS-08031 was removed and replaced with valve serial no. BW-09724.

Following removal valve serial no. BS-08031 was reworked at a vendor shop on purchase order W035078. This rework was documented on WA 01071882. During rework disc replacement was required due to steam cut seating surfaces from leakage. This NIS-2 is to document disc replacement on valve serial no. BS-08031.

Following rework of valve serial no. BS-08031 replacement of pressurizer safety valves was again performed during refueling outage four. At this time valve serial no. BW-09724 was removed and replaced with valve serial no. BS-08031 for RC MVA317 A. This replacement was accomplished on WA 01054796. Replacement of valves during maintenance and refueling outages was documented on NIS-2 91-022.

Following rework and disc replacement valve serial no. BS-08031 was bench set and tested for leakage. Pressure testing was not performed on WA 01071882. Pressure testing was performed on WA 01054796 following replacement in system by performing a system leakage test using 'T-2 leakage criteria. Documentation of acceptable system leakage criteria is documented in WA 01054796 and NIS-2 91-022.

Certification of replacement components is filed in records as follows:

Disc PO W16802 MRIR M03216 FAN 3653-1324

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

1. Owner Entergy Operations, Inc. Date December 3, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01082058
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical and Volume Control)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S74 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
CVC-192A	Crosby	N60643-00-0001	NA	Valve 2CH-R1526A	1978	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2485 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 12-3-92

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 of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 12-3-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Charging pump A discharge header relief valve was identified as having a top cap leak during normal operating conditions. Corrective action required rework. During rework valve disc insert seating surfaces were found cut beyond rework and bellows was found leaking.

A replacement disc insert, disc insert pin and bellows were obtained from material and stores. Valve reassembly was performed using replacement parts obtained. Following reassembly a successful bench setting and test was obtained.

Upon return to service a pressure test at normal operating pressure was performed. Examination by VT-2 was satisfactory.

Certification for replacement disc insert is filed in the following record:

Purchase Order:	W11796
Serial Number:	N91101-49-0073
MRIR:	9780-87
FAN:	2672-2057

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

1. Owner Entergy Operations, Inc. Date December 3, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01063145
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
2CH4-41B	Dravo	7942	NA	Pipe 2CH4-41A/B-2	1977	Repaired	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure _____ psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry K. Blum Jr. Maintenance Engineer Date 12-3-92

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Thayer S. Benford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 12-4-92

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Charging pump "B" suction piping flange has exhibited consistent leakage. Investigation revealed misalignment of suction flanges. Correction of flange misalignment required grinding of downstream weld on 4" X 2" eccentric reducer located upstream of suction flange. This weld was partially ground to remove crown and then rewelded. Heat applied during welding changed flange alignment sufficiently to provide adequate alignment.

Radiographic examination (RT) was used to examine repaired weld. Following return to service repaired weld was pressure tested at normal operating pressure conditions. Examination for leakage during pressure testing was conducted using VT-2 criteria and found satisfactory.

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

1. Owner Entergy Operations, Inc. Date December 15, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 7
Address

2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01100704
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
SI MVA343	WKM Valve Div. ACF Inc.	567698	1920	2SI-F1561A/B 2SI2-80A/B-1	1980 1982	Replaced	Yes
SI MVA343	Masoneilan	N00224-2-1	NA	2SI-F1561A/B 2SI2 80A/B-1	1982 1982	Replacement	Yes

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2145 psi Test Temp. 68 F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks See Attachment 2 (4 Pages) for Code Data Reports.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed *Henry J. Blum* Maintenance Engineer Date 1-8-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Henry J. Blum Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-8-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Safety Injection Tank Drain to Refueling Water Storage Pool Valve (SI MVA343) was not able to meet Local Leak Rate Testing (LLRT) criteria. Several attempts to rework valve internals failed to achieve adequate LLRT results. During rework attempts valve leak off line was cut and a cap weld on since cutting of leak off line was necessary for valve disassembly. After several failed attempts to rework valve a decision was made to replace this gate valve with a globe valve. Valve replacement was performed in accordance with SPEER 9201094. All welds for replacement and cutting and installing cap on leak off line were inspected by visual (VT-1), liquid penetrant (PT) and radiographically (RT) as appropriate. As inspection results were satisfactory. Following replacement installation piping and valve were hydrostatically tested. Hydrostatic test inspection to VT-2 leakage criteria was satisfactory. Following replacement acceptable LLRT results were obtained.

Material certification for replacement items is filed in records as follows:

Control Valve 2" SS SA351 Gr. 316 CF8M SN N0022-2-1
PO W19029 MRIR M00101 FAN 3687-0098

Pipe 2" Sch. 160 SS SA376 Gr. 304 Heat No. 465218
TR 6024-87 MRIR 0083-87 FAN 3156-1506
PO WP3-4338 MRIR 80-02356 FAN 0582-0052

Pipe Cap 1/2" 3000 lb SS SA182 SW
TR 5104-86 MRIR 6974-86 FAN 2384-1130 Heat Code BEH
PO WP3-9116 MRIR 82-03477 FAN 1771-3016 Heat Code BEH
PO L97429 MRIR 7468-86 FAN 2394-0355 Heat Code FHX

Attachment 2
Code Data Reports
(Page 1 of 4)

FORM NPV-1 IN CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section II, Div. 1

1 Manufactured by Masonellan Div., McGraw-Edison Co., 61 Nahatan St., Norwood, MA 02062
(Name and Address of Manufacturer)

2 Manufactured for Combustion Engineering, P.O. Box 488, Windsor, CT 06025
(Name and Address of Purchaser or Owner)

3 Location of Installation Tennessee Valley Authority, Yellow Creek Unit 2, Juba, MS
(Name and Address)

4 Pump or Valve Globe Control Valve Nominal Inlet Size 2" Outlet Size 2"
(Inch) (Inch)

(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Condition Registration No.	(d) Drawing No.	(e) Class	(f) No. 1 or 2	(g) Year Built
(1) 48-20761	ND0224-2-1	NA	AP083	1	NA	1982
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
(10)						

5 C.E. P.O. 9871806 Sulfuric Acid Tag No. CH-515
(Brief description of service for which equipment was designed)

6 Design Conditions 2485 ps 650 °F or Valve Pressure Class NA (1)
(Pressure) (Temperature)

7 Cold Working Pressure 3782 ps at 100°F

8 Pressure Retaining Pieces

Part No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
E8827-2	ASME SA 351 GR CF8M	Quaker Alloy	Body
D4515-3	ASME SA 351 GR CF8M	Quaker Alloy	Bonnet
(b) Forgings			
NA			

CUSTOMER NO. 9871806
Customer Valve Tag No. CH-515

(1) For manually operated valves only
* Supplemental sheets in form of I.D.S. sketches or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

02878

Attachment 2
Code Data Reports
(Page 2 of 4)

Mark No.	ASME Spec. No.	Manufacturer	Remarks
(d) Bolting			
B60T	ASME SA 433 GR 660	Texas Bolt Co.	STEELS
TE	ASME SA 194 GR 8	Texas Bolt Co.	NUTS
(e) Drive Parts			
6P6718-1	ASME SA 564 GR 530	AT&T	FLYPS
463821-23	ASME SA 312 TY 316	Sandvik	KIDPLE

8.1. Pressure test 5075 psi. Del. Differential test pressure 3632 psi.

NIPR-M 02878

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1977, Appendix Summer 1977, Code Case No. NA, Date NA.
Signed Masonellan Div., McGraw-Edison Co. by [Signature] 7/7/82
Our ASME Certificate of Authorization No. N-1836 to use the N symbol expires 8/18/83.

CERTIFICATION OF DESIGN

Design information on file at Masonellan Div., McGraw-Edison Co.
Stress analysis report (Class I only) on file at Masonellan Div., McGraw-Edison Co.
Design specifications certified by (1) T.L. Kettles
PE No. NY Reg. No. PE 02R729
Stress analysis certified by (1) J.C. Voss
PE State NA Reg. No. 29263
(1) Signature not required. Last name only.

CERTIFICATE OF SHOP 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 N.J. and employed by H.S.N.I. & I. Co. of HILLTOP, NJ have inspected the pump, or valve, described in this Data Report on July 8, 1982 and state that to the best of my knowledge and belief, the N Certificate holder has constructed said pump, or valve, in accordance with the ASME Code, Section III.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this 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 8, 1982 Commissioner [Signature] P71
(Part No., Class, Form and No.)

Attachment 2
Code Data Reports
(Page 4 of 4)

FORM NPV-1 (Back)

Mark No	Material Spec. No	Manufacturer	Remarks
(c) Bolting			
Studs	SA-193, B7	W-K-M Valve	Heat #MU-555
Nuts	SA-194, 7	Texas Bolt	Heat #M22711
(d) Other Parts			
Gate Segment	SA-564, 630	Coulter Steel	Heat #76877
Pipe Plug	SA-479, 316	Coulter Steel	Heat #A16790

9 Hydrostatic test 5400 psi Disk Differential test pressure 3600 psi

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1971.

Aspects Summer '77 (Date) Code Case No N/A Date January 6, 1981

Signed W-K-M Valve Div., ACF Ind. Inc. by John A. Hasty
(In Certificate Holder)

Our ASME Certificate of Authorization No. N-1962 to use the N symbol expires 1-15-81
(Temp. ext. Date)

CERTIFICATION OF DESIGN

Design information on file at W-K-M Valve Div., ACF Ind. Inc.

Stress analysis report (Class 1 only) on file at W-K-M Valve Div., ACF Ind. Inc.

Design specifications certified by (1) Charles S. Rogovin

PE State Louisiana Reg. No. 11597

Stress analysis certified by (1) Cesar Seade

PE State Louisiana Reg. No. 16120

(1) Signature not required. List name only.

CERTIFICATE OF SHOP 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 Texas and employed by H.S.B. I&I Company of Connecticut have inspected the pump, or valve, described in this Data Report on January 7, 1981 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this 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 Jan 7, 1981

H. E. Harrison
Inspector

Commissions

NB 4893

(Nat'l Bd. State Prov. and No.)

051510

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

1. Owner Entergy Operations, Inc. Date December 17, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01085243
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CVC (Chemical Volume Control)

5. (a) Applicable Construction Code Sec III NC 1977 Edition, S77 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through WB1 Addenda

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)
CVC MVA00109	Masoneilan	N00223-2-1	NA	Valve 2CH-F1518A/B	1982	Repair	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 2250 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this

repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp None

Certificate Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry H. Blum Maintenance Engineer Date 1-4-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

August S. Sanford Commissions 5951 N E I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Letdown heat exchanger inlet header containment isolation valve (CVCMVAAA109) was identified as having seat leakage. Rework activities identified steam cutting on plug seating surfaces. To correct steam cutting, metal was removed on plug seating surfaces. Following metal removal plug seating surfaces were examined using liquid penetrant (PT). Examination results were satisfactory. Following reassembly valve seat leakage was verified acceptable by local leak rate testing (LLRT) criteria.

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

1. Owner Entergy Operations, Inc. Date December 17, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01089618
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CC (Component Cooling)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S75 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through WB1 Addenda

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)
CC MVA710	Jamesbury	NC39630-03C	NA	Valve 2CC-F243A/B	1977	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 110 psi Test Temp. _____ F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry B. Lane Jr. Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the component described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Sanford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Non-Nuclear safety component cooling water return header inside containment isolation valve (CC MVA00710) was identified as having failed local leak rate testing (LLRT) criteria. During rework valve wafer sealing surface was found to have cutting. A replacement valve wafer was installed. After reassembly LLRT was acceptable.

Following return to service pressure testing of valve at normal operating pressure to VT-2 leakage criteria was satisfactory.

Material Certification for replacement wafer is filed as follows:

PO W48991 MRIR M05362 Serial No. NKC-2
PO L16418 MRIR 5697-84 FAN 3007-1212 Serial No. NKC-2

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

1. Owner Entergy Operations, Inc. Date December 17, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01086862
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System MS (Main Steam)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S75 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
MS MVA116B	WKM Division ACF Ind. Inc.	17285-11-2	NA	Valve 2MS-PM630B	1980	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 985 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-4-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Main steam No. 2 atmospheric dump valve (MS MVAAA116 B) was identified as having seat leakage. Rework showed plug and seat sealing surfaces to be steam cut. Therefore, plug and seat were replaced.

Following return to service pressure testing at normal operating pressure to VT-2 leakage criteria was satisfactory.

Material certification for replacement items is filed as follows:

Plug: PO W38662 MRIR M02689 FAN 4962-0489

Seat: PO W32164 MRIR M02245 FAN 4277-1721

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

1. Owner Entergy Operations, Inc. Date December 19, 1992
Name
- 1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
- Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01100672
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)
5. (a) Applicable Construction Code Sec. III NC 1974 Edition, NA Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
SI MVA344	Yarway	8126	NA	Valve 2SI-V1570	1977	Repair	No
SI MVA344	Yarway	8126	NA	Valve 2SI-V1570	1977	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 1800 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-4-93

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Safety Injection Tanks Drain to Refueling Water Storage Pool Header Isolation Valve (SI MVAAA344) was identified as having seat leakage. Rework required grinding to remove stem bushing retaining tack weld on bonnet. During rework disc was found to have cuts in seating area due to leakage. Cuts in disc seating area could not be repaired. A replacement disc/stem assembly was obtained and installed. A blue check of replacement disc/stem assembly to valve seat did not provide adequate seat contact. Lapping of seat did not provide adequate seat contact. Therefore, valve seat was machined. Following machining, lapping of disc to seat provided adequate seat contact. Following machining and lapping, valve seat was inspected visually with no surface indications noted. Stem bushing retaining tack weld was made on bonnet. Tack weld was examined by liquid penetrant (PT).

Following return to service valve was pressure tested at normal operating pressure. Examination during pressure test for leakage using VT-2 criteria was satisfactory.

Material certification for replacement disc/stem assembly is filed as follows:

PO L24202 MRIR 5995-84 FAN 1513-0006

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

1. Owner Entergy Operations, Inc. Date December 19, 1992
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA's 01092960, 01083703
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)
5. (a) Applicable Construction Code Sec III NC 1968 Edition, M70 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
W81 Addenda

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)
SI MVA000225 B	Target Rock Corporation	71L-002-1	NA	Valve 2SI-V1545B1	1979	Repair	No
SI MVA000225 B	Target Rock Corporation	71L-002-1	NA	Valve 2SI-V1545B1	1979	Partial Replacement	No
SI MVA000227 A	Target Rock Corporation	71L-002-6	NA	Valve 2SI-V1542A3	1979	Repair	No

7. Description of Work See Attachment 1 (1 Page)
8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 1800 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. B. Lane, Jr. Maintenance Engineer Date 1-12-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co. * of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Harry J. B. Lane, Jr. Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-12-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

A review of refuel four MOVATS data showed high pressure safety injection pump header B to reactor coolant loop 1A flow control valve (SI MVAAA225 B) to have experienced a valve stem over thrusting due to valve operator. Recommended action was to replace valve stem/disc assembly.

Rework of valve to replace stem/disc assembly requires removal of a seal weld. For proper assembly match marks are needed on body and bonnet. Match marks were inadvertently made deeper than desired. Match marks were measured and remaining body and bonnet body thickness compared against minimum thickness from valve data reports and ASME Section III requirements. A determination was made that valve body and bonnet remaining thickness meet all requirements. Match marks were blended and examined using liquid penetrant (PT). No indications were found.

Valve reassembly was performed using a new stem/disc assembly. Valve bonnet to body seal weld was performed and inspected using liquid penetrant (PT). No indications were found.

Following return to service valve was pressure tested at normal operating pressure. Examination of pressure test using VT-2 criteria was satisfactory.

Material certification for replacement stem/disc is filed as follows:

PO W13745 MRIR 2337-87 FAN 4647-1968

High pressure safety injection pump header A to reactor coolant loop 2A flow control valve (SI MVAAA227 A) was identified as contributing to safety injection tank leakage. Rework required removal and replacement of a body to bonnet seal weld. During rework valve seat sealing area was found to be scored. Scoring could not be removed by lapping. Machining of valve seat also failed to remove scrring. Valve seat was examined following machining. No indications were found other than identified scoring. Valve was reassembled following lapping of disc to seat. Rework of valve to replace seat or valve will occur on WA 01089946. Body to bonnet seal weld was examined using liquid penetrant (PT). No indications were found.

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

1. Owner Entergy Operations, Inc. Date December 19, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 9
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA's 01086461 and 01086436
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)

5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
SI MVA00108 A	TRW Mission	D3643	NA	Valve 2SI-V331A	1977	Replaced	No
SI MVA00108 A	C&S Valve Co.	91-1704-01(N) -02	NA	Valve 2SI-V331A	1992	Replacement	No
SI MVA00108 B	TRW Mission	D3642	NA	Valve 2SI-V331B	1977	Replaced	No
SI MVA00108 B	C&S Valve Co.	91-1704-01(N) -01	NA	Valve 2SI-V331B	1992	Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 415 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks See Attachment 2 (6 pages) for Code Data Reports

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this

replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. Blain, Jr. Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Thomas S. Benford
Inspector's Signature

Commissions 5951 N B I S
National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Low pressure safety injection pumps A and B suction header check valves (SI MVAAL08 A and B) were identified as having hinge pin plug leakage. Leakage is attributed to wear. Required corrective action was to replace valves. During replacement of A valve 2 flange nuts were lost. Replacement nuts were obtained and installed.

Following return to service valves were pressure tested at normal operating pressure. Examination for leakage during pressure test using VT-2 criteria was satisfactory.

Material certifications is filed as follows:

Valves:

PO W42801 MRIR M00849 FAN 5076-0144

Nuts:

PO W20933 MRIR M04903 FAN 3064-1312

Attachment 2
Code Data Reports
(Page 1 of 6)

*Corrected Copy - Date Omitted

FORM NPV-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
(As Required by the Provisions of the ASME Code, Section III, Div. 1) MVP-4212

1. Manufactured by TRW Mission Mfg. Co., A Div. of T.R.W., Inc., Houston, Texas
(Name and Address of Manufacturer)
2. Manufactured for Louisiana Power & Light Company
(Name and Address of Purchaser or Owner)
3. Location of Installation Waterford DES Unit 3, St. Charles Parish, LA
(Name and Address)
4. Pump or Valve Valve Nominal Inlet Size 20" Outlet Size 20"
Inches

	(a) Model No., Series No. or Type	(b) Manufacturer's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l Std. No.	(g) Year Built
(1)	30 CM-X26	D3642	None	19297	2	None	1977
(2)	30 CM-X26	D3643	None	19297	2	None	1977
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

THROW
4-11-79
5
1-10-79

5. From RWSP or SIS to LPSI Pump A (S/N D3642)
From RWSP or SIS to LPSI Pump B (S/N D3643)
(Brief description of service for which equipment was designed)

6. Design Conditions 140 psi 400 °F or Valve Pressure Class (1)
(Pressure) (Temperature)
7. Cold Working Pressure 720 psi at 100 F
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
12260-Q3-0471	ASME SA351 Gr. C 8M	Ocala Steel Casts.	Bodies
12253-Q0-04	ASME SA351 Gr. C 8M	Hica Corp.	Plates
(b) Forgings			

REVIEWED BY
EBARCO VQA REP.

(1) For manually operated valves only.
* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this data report is included on each sheet and (3) each sheet is numbered and number of sheets is returned at top of this form.
1778) This form (F00137) may be obtained from the Order Dept., ASME, 346 E. 47 St., New York, N.Y. 10017

Attachment 2
Code Data Reports
(Page 2 of 6)

J 7 3 1 FORM NPV-1 (8-58) 7 5

Mark No	Material Spec No	Manufacturer	Remarks
(c) Ringing --			
(d) Other Parts 10714-2-54	ASME SA479 T, 10 316	Carpenter Tech	
10714-2-54	ASME SA479 T, 10 316	Carpenter Tech	

9 Hydrostatic test 200 psi

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1971, Code Case No. N-1137, dated 4-5-77.

Witnessed (Date) _____ Code Case No. _____ Date 4-5-77

Signed (Manufacturer) *W. Mission Mfg. Co.* by *M. C. Dwyer*

Our ASME Certificate of Authorization No. N-1137 to use the (N) (NPV) symbol expires (Date) 11-1-77

CERTIFICATION OF DESIGN

Design information on file at Babcock Services Inc., New York, New York
Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (I) Charles S. Benovic
PE State Louisiana Reg No. 11597

Stress analysis certified by (II) N/A
PE State N/A Reg No. N/A

(I) Signature not required. List name only

REVIEWED BY
EBASCO VQA REP.

CERTIFICATE OF SHOP 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 Texas and employed by H.S.B.I. & I. Co. of Hartford, Connecticut have inspected the pump, or valve, described in this Data Report on 4-5-77 and state that in the best of my knowledge and belief, the Manufacturer has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this report, the inspector for his employer makes any warranty, expressed or implied, concerning the proper construction of the pump, or valve, and the inspector for his employer shall be liable in any manner for any personal injury or property damage of a loss of any kind arising from or connected with this inspection.

Date 4-5-77 *E. E. [Signature]* 1977
Commission TEXAS 833
(List 8d State, Prov. and No.)

Attachment 2
Code Data Reports
(Page 4 of 6)

FORM NPV-1 (Back - Pg. 2 of 2)

Certificate Holder's Serial No. 91-1704-01(N)-U1

9. Design conditions 720 (pressure) psi 100 (temperature) °F or valve pressure class 300 (1)
10. Hydrostatic test 1080 psi. Disk differential test pressure 735 psi

11. Remarks
Stop Pin Retainer - MATERIAL: SA 479 T 316 HEAT CODE: 10E
Hinge Pin Retainer - MATERIAL: SA 479 T 316 HEAT CODE: CHE-2

CERTIFICATION OF DESIGN
Design Specification certified by Charles S. Rogovin P. E. State Louisiana Reg. no. 11597
Design Report certified by On File At Entergy Operations P. E. State _____ Reg. no. _____

CERTIFICATE OF COMPLIANCE
We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.
N Certificate of Authorization No. N-2723 Expires 6/20/92
Date 3/19/92 Name C&S Valve Co.; Tricentric Division Signed [Signature]
(In Certificate Holder) (Authorized Representative)

CERTIFICATE OF 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 Illinois and employed by Albion Mutual Insurance Co. of Northampton, Massachusetts have inspected the pump, or valve, described in this Data Report on 3-14-92 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.
*Factory Mutual System
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this 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 3-14-92 Signed [Signature] Commissions N-10168 II 1485, also TR N-3384
(Authorized Inspector) (Nat'l. Bd. Incl. Undersecretary and State or Prov. and no. 1)

(1) For manually operated valves only.

66502596
1114

Attachment 2
Code Data Reports
(Page 6 of 6)

FORM NPV-1 (Back - Pg. 2 of 2)

Certificate Holder's Serial No. 91-1704-01(H)-44

8 Design conditions 720 (pressure) at 100 (temperature) °F or valve pressure class 300 (1)

9 Cold working pressure 720 psi at 100°F

10 Hydrostatic test 1080 psi. Disk differential test pressure 795 psi

11 Remarks
Stop Pin Retainer - MATERIAL: SA 479 T 316 HEAT CODE: XKE
Hinge Pin Retainer - MATERIAL: SA 479 T 316 HEAT CODE: QNE-2

CERTIFICATION OF DESIGN

Design Specification certified by Charles S. Rogovin P.E. State Louisiana Reg. no. 11597
 Design Report certified by On File At Emergency Operations P.E. State ----- Reg. no. ----

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2723 Expires 6/20/92
 Date 3/14/92 Name C&S Valve Co.; Tricentric Division Signed [Signature]
(in Certificate holder) (Authorized representative)

CERTIFICATE OF 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 Illinois and employed by *Allendale Mutual Insurance Co. of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 3-14-92 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

*Factory Mutual System

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this 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 3-14-92 Signed [Signature] Commissions N-10108 IL 1008, OHIO, PA N-3396
(Authorized Inspector) (Nat'l Bd. Incl. endorsements and state or prov. and no.)

(1) For manually operated valves only.

96520
 02596
 02/1/92

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

1. Owner Entergy Operations, Inc. Date December 19, 1992
Name
- 1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address
2. Plant Waterford Unit 3
Name
- Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01095681
Address Repair Organization P.O. No., Job No
3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)
5. (a) Applicable Construction Code Sec III NC 1974 Edition, S76 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda
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)
SI MVA604 A	TRW Mission	D1445	NA	Valve 2SI-V105A	1977	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 60 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. X 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. H. B. Law, Jr. Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Noxwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Justin L. Sanford Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Safety injection recirculating sump outlet header A check valve (SI MVA604 A) was removed for routine examination. During removal and examination flange installation studs and nuts were found to have thread damage from galling. Therefore, during installation new studs and nuts were installed as needed.

Following return to service a system functional pressure test at normal operating pressure was performed. Examination for leakage using VT-2 criteria was satisfactory.

Material certification for replacement studs and nuts is filed as follows:

Studs: Rod All Thread 1-1/4" 7UNC SA 193 Gr. B8 Heat No. 79243 Heat Code D7
PO W19649 MRIR M06113 FAN 3066-0404

Nuts: 1-1/4" 7UNC SA 194 Gr. 8
PO L48663 MRIR 7685-84 FAN 1258-1876

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

1. Owner Entergy Operations, Inc. Date December 19, 1992
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA 01091726
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System CS (Containment Spray)

5. (a) Applicable Construction Code Sec III NC 1971 Edition, W73 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through W81 Addenda

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)
CS MVA110 B	Velan	754-2	NA	Valve 2CS-V1502B	1975	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 285 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed Harry J. B. Lewis Maintenance Engineer Date 1-5-93

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 of Providence of Louisiana and employed by Akwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Hugh S. Sanford
Inspector's Signature

Commissions 5951 N.B.I.S.
National Board and Endorsements

Date 1-6-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

During routine inspection of containment spray pump B minimum recirculation stop check valve (CS MVAAA110 B) an adequate seat contact could not be obtained. Valve disc replacement was required to achieve and adequate seat contact to prevent valve leakage.

Following return to service pressure testing at normal operating pressure was performed. Examination during pressure testing for leakage using VT-2 criteria was satisfactory.

Material certification for replacement disc is filed as follows:

PO L48866 Item 108 MRIR 0996-85 FAN 2587-04J2

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

1. Owner Entergy Operations, Inc. Date January 8, 1993
Name

1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name

Hwy. 18, P.O. Box B, Killona, LA 70066 WA's 0105859 and 01097928
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable

Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System FP (Fire Protection)

5. (a) Applicable Construction Code Sec III NC 1971 Edition, S73 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
FP MVA601 A	WKM Valve Div ACF Ind., Inc	70-116604	1667	Valve 2FP-F127	1979	Partial Replacement	No
FP MVA601 B	WKM Valve Div ACF Ind., Inc	70-116603	1666	Valve 2FP-F129	1979	Partial Replacement	No

7. Description of Work See Attachment 1 (1 Page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 130 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed [Signature] Maintenance Engineer Date 1-12-93

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 of Providence of Louisiana and employed by Awkwright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 1-12-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

Fire protection headers A and B outside containment isolation valves (FP MVAAA601 A and B) failed local leak rate testing (LLRT). Corrective action required valve rework. During rework valve stem and seat showed normal wear that prevented adequate sealing to LLRT criteria. During rework worn valve stems and seats were replaced along with contoured plugs and post plug with back-up plate.

Following rework LLRT results were satisfactory. In addition pressure testing at normal operating pressure was conducted. Inspection for leakage at normal operating pressure using VT-2 criteria was satisfactory.

Material certification for replacement parts is filed as follows:

Stem:

PO W36622 MRIR M03522 FAN 4367-0786

Seat:

PO W19032 MRIR M02270 FAN 3535-0091

PO W34686 MRIR M06206 FAN 4370-2164

Post Plug and Back-up Plate

PO A36745 MRIR 1265-88 FAN 3010-0830 and 3466-0436

Contour Plug

PO A36745 MRIR 5867-84 FAN 3010-0830

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

1. Owner Entergy Operations, Inc. Date February 2, 1993
Name
1340 Echelon Parkway, Jackson, MS 39213 Sheet 1 of 3
Address

2. Plant Waterford Unit 3
Name
Hwy. 18, P.O. Box B, Killona, LA 70066 WA 99003376 CI's 281818, 281819 & 281820
Address Repair Organization P.O. No., Job No

3. Work Performed by Entergy Operations, Inc. Type Code Symbol Stamp None
Name Authorization No. Not Applicable
Hwy. 18, P.O. Box B, Killona, LA 70066 Expiration Date Not Applicable
Address

4. Identification of System SI (Safety Injection)
5. (a) Applicable Construction Code Sec III NC 1968 Edition, M70 Addenda, NA Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 through
WB1 Addenda

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)
SI MVA307 A	Fisher Controls, Inc	5040516	NA	Valve 2SI-F1564TK1A	1976	Partial Replacement	No
SI MVA307 B	Fisher Controls, Inc	504517	NA	Valve 2SI-F1565TK1B	1976	Partial Replacement	No
SI MVA308 B	Fisher Controls, Inc	504519	NA	Valve 2SI-F1567TK2B	1976	Partial Replacement	No

7. Description of Work See Attachment 1 (1 page)

8. Tests Conducted: Hydrostatic Pneumatic Normal Operating Pressure
Other Pressure 625 psi Test Temp. F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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.

FORM NIS-2 (Back)

9. Remarks None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp None

Certificate of Authorization No. Not Applicable Expiration Date Not Applicable

Signed *Henry J. Blum* Maintenance Engineer Date 2-2-93

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 of Providence of Louisiana and employed by Awkright Mutual Insurance Co.* of Norwood, MA have inspected the components described in this Owner's Report during the period May 1991 to November 1992, 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.

Henry J. Blum Commissions 5951 N B I S
Inspector's Signature National Board and Endorsements

Date 2-3-93

* Factory Mutual System

Attachment 1
Description of Work
(Page 1 of 1)

As part of a plant valve packing enhancement program packing gland leak off lines are cut and capped. During packing enhancement lantern rings are removed and packing ring stack height reduced. Excess valve packing gland space is taken up using split carbon bushings. Leak off lines cut and capped are typically 1/8" to 3/4" NPS. Due to implementation of packing enhancement socket weld cap installed on leak off line from valve stuffing box becomes a pressure retaining component. Welds for installing socket weld cap are examined using dye penetrant method (PT). Based on IWA-4400 (b) (5) welds are exempt from pressure testing. However, pressure testing at normal operating pressure was performed. Inspection for leakage during pressure testing using VT-2 acceptance criteria was acceptable.

Material certification for 1/2" SA182 F304 3000lb socket welded pipe caps is provided as follows:

PO L97429 MRIR 7468-86 FAN 2394-0355