

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-249/86007(DRS)

Docket No. 50-249

License No. DRP-25

Licensee: Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

Facility Name: Dresden Station, Unit 3

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: March 6-7, 12-14, 19; April 1-4, 16-18, 29-30;
May 1, 13-15; June 25-27; July 15-19; and
August 5-6, 1986

Inspector: *D. H. Danielson*
for W. J. Key

8/27/86
Date

Approved By: *D. H. Danielson*
D. H. Danielson, Chief
Materials and Processes
Section

8/27/86
Date

Inspection Summary

Inspection on March 6-7, 12-14, and 19; April 1-4, 16-18, and 29-30;
May 1 and 13-15; June 25-27; July 15-19; and August 5-6, 1986 (Report
No. 50-249/86007(DRS))

Areas Inspected: Unannounced, special inspection of the replacement
of IGSCC susceptible piping and the resolution of IE Bulletin No. 83-02.
Results: No violations or deviations were identified.

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PDR ADDCK 05000249
Q PDR

DETAILS

1. Personnel Contacted

Commonwealth Edison (CECo)

E. R. Zebus, RPR Superintendent
E. J. Hemzy, Construction Manager
*D. J. Scott, Station Manager (Dresden)
R. H. Werder, Site Construction Superintendent
*W. McGaffigan, RPR Project Lead Engineer
*D. Brown, RPR Quality Assurance (QA) Supervisor
D. Gardner, RPR Level III Inspector
*R. Rickman, Dresden Level III QA Inspector
J. Kotowski, Operation Engineer
M. Karcell, Shift Supervisor
D. Dransfeldt, Shift Engineer
*D. Adam, Regulatory Assurance
*R. M. Jeisy, Station QA Supervisor

Hartford Steam Boiler Insurance (Hartford)

J. Tetrault, ANII

*Denotes those attending the exit meeting.

2. Licensee Action on IE Bulletins

(Closed) IE Bulletin No. 83-02 (249/83-02-BB): Due to the intergranular stress corrosion cracking (IGSCC) identified at Nine Mile Point One in 1982, the NRC issued IE Bulletin No. 82-03, Revision 1 for action to all BWR facilities down for refueling outages or scheduled for refueling outages in late 1982. On March 4, 1983, the NRC issued IE Bulletin No. 83-02 to inform all licensees and CP holders of BWR facilities of the recent generic pipe cracking problems.

On October 20, 1983, the licensee submitted a letter to the NRC identifying welds that would not be examined during the outage and their technical justification for not examining these welds. One hundred and fifty-two welds were examined during the outage, 61 welds were identified with IGSCC indications and would require weld overlay repair. By order the licensee was required to submit to the NRC plans for inspection and/or modification including replacement of recirculation piping 90 days prior to the start of their next refueling outage of Unit 3.

On June 3, 1985, the licensee submitted a letter to the NRC outlining their plan to replace IGSCC susceptible stainless steel piping in the recirculation system and other systems during their 1985 fall refueling outage.

See NRC Inspection Reports No. 50-249/85025, No. 50-249/85037 and this report which document the Region III review of the licensee's replacement of this piping.

This IE Bulletin is considered closed.

3. Review of the Replacement IGSCC Susceptible Piping

a. Examination of Field Welds

Region III has followed licensee activities during the replacement of IGSCC susceptible stainless steel piping. See this report and Inspection Reports No. 50-249/85025, and No. 50-249/85037. During these inspections the NRC inspector reviewed the program, specifications, procedures, observed training and installation activities, and reviewed pertinent quality related records and approximately 90% of all final radiographs.

During radiographic examination of field welds some problems of interpretation arose between the contractor (CB&I) and the radiographers relating to the rejection of welds for root concavity. The ASME Code Section III Sub-Section NB-5320(c), states, "Internal root weld conditions are acceptable when the density changes as indicated in the radiograph is not abrupt." Sub-Section NB-4424(d) states, "Concavity on the root side of a single welded circumferential butt weld is permitted when the resulting thickness of the weld is at least equal to the thickness of the thinner member of the two sections being joined."

At the suggestion of the NRC inspector the licensee made samples of this condition and radiographed them for use as a guide for acceptance of root concavity. These samples are being maintained along with the radiographs and records.

On April 4, 1986, the licensee submitted a letter of inquiry to the ASME Boiler and Pressure Vessel Committee for interpretation and clarification of the sub-sections of the code.

The NRC inspector reviewed the following additional records and radiographs:

<u>Report No.</u>	<u>Dwg. No.</u>	<u>Weld No.</u>
RT-81	42	RRB-23F-R/1
RT-82	42	RRB-02F
RT-83	42	RRB-34F
RT-84	42	RRB-30F-R/1
RT-85	52	CSA-06F
RT-95	71	LPA-01F
RT-100	(Base metal repair, valve)	RRA-49F
RT-109	31	RRA-37F
RT-114	43	RRB-52F
RT-152	43	RRB-54
RT-176	31	RRA-05F

RT-182	40, 41, 42, 44	RRB-01F
RT-134	63	RWC-26F
RT-135	42	RRB-09F
RT-139	78	LPB-01F-R/3
RT-144	78	LPB-05F
RT-145	42	RRB-13F-R/1
RT-146	910	ISO-FW-1
RT-151	52	CSA-08F
RT-153	85	SDA-06F
RT-160	42	RRB-32F-R/1
RT-167	32	RRA-52F
RT-168	52	CSB-07F
RT-183	901-2	LPCI-B-FW1-R/1
RT-184	901-2	LPCI-B-FW2-R/2
RT-185	143	LPCI-A-FW-1
RT-188	32/29	RRA-59F-R/1
RT-189	31	RRA-29F
RT-190	85	SDA-04F
RT-192	52	CSB-03F
RT-193	85	SDA-03F
RT-195	52	CSA-03F
RT-197	63	RWC-08F
RT-198	91	ISO-14F
RT-199	66(Repair)	RWC-3744A-R-214
RT-200	31	RRA-01F
RT-202	33	RRA-71F
RT-203	91	ISO-09F
RT-209	43	RRB-54F-R/1
RT-215	42	RRB-46F
RT-217	43	RRB-59F
RT-225	49	RRB-69F
RT-226	43	RRB-65F
RT-227	43	RRB-66F
RT-228	49	RRB-70F
RT-230	43	RRB-54F-R/1
RT-232	43	RRB-55F
RT-233	91	ISO-07F
RT-234	31	RRA-48F
RT-235	32/30	RRA-57F
RT-236	71	LPA-05F
RT-237	61	RWC-06F
RT-238	63	RWC-14F
RT-239	63	RWC-11F
RT-240	63	RWC-12F-R/1
RT-241	63	RWC-15F
RT-242	91	ISO-10F (Weld prep)
RT-243	91	ISO-06F

RT-244	31	RRA-47F
RT-245	78	LPB-07F-R/1
RT-246	69	LPA-03F-R/2
RT-247	71	LPA-07F

b. System Walkdown

The NRC inspector performed a walkdown of the systems listed below using CB&I pipe installation and support drawings with attached Emergency Change Notice (ECN) showing spool piece number, weld joint identification and location.

(1) Core Spray Loop "A" (Assembly)

<u>CB&I Dwg.</u>	<u>Impell Ref. Dwg.</u>	<u>ECN</u>
51, Revision 2	M-3773, Revision 4	329
52, Revision 5	M-3773, Revision 4	5, 44, 74, 113, 119, 261, 268
53, Revision 3	M-3754, Revision 1 M-3778, Revision 1 M-3779, Revision 2	223, 328

Support Dwg.

526, Revision 4, sht. 1	I 562
527, Revision 3, sht. 1-3	I 365, I 564, I 364, I 563, I 587
528, Revision 3, sht. 1-2	
529, Revision 4, sht. 1-3	I 407, I 419, I 408

(2) Reactor Water Clean-up

<u>CBI Dwg.</u>	<u>Impell Dwg.</u>	<u>ENC</u>
59, Revision 4 Removal Details	D3-RRCI-RP03, Revision 2	59, 130, 146, 156, 161, 165, 190, 195, 184, 292, 325, 369, 378
60, Revision 4 Installation Assembly	M-3702, Revision 6	174, 185, 199 364, 370, 379
61, Revision 2 Installation Assembly	M-3702, Revision 6	183, 365, 380
62, Revision 2	M-3702, Revision 6	82, 125, 150, 176, 186, 201, 226, 230, 245, 270, 280, 285, 299, 366, 381, 392
63, Revision 4	M-3702, Revision 2	

64, Revision 5	M-3739, Revision 2 M-3740, Revision 4 M-3741, Revision 2	20, 95, 187, 188 210, 335, 346, 347
65, Revision 5	M-3742, Revision 1 M-3743, Revision 2 M-3745, Revision 1 M-3795, Revision 2	96, 316, 368, 371 382
66, Revision 3	M-3744, Revision 4	323, 324, 340, 367
67, Revision 4	M-3784, Revision 2	

(3) Reactor Water Clean-up (Pipe Support Dwgs.)

<u>Install Dwg</u>	<u>Impell Ref. Dwg</u>	<u>ECN</u>
500, Revision 2, sht. 1-3		I278, I207, I303, I277
501, Revision 3, sht. 1,2		I279, I337, I492
502, Revision 3, sht. 1		I519, I390, I613
503, Revision 5, sht. 1-3		I16
504, Revision 2-3, sht. 1-4		I189
505, Revision 4		
532, Revision 3		
533, Revision 3		
535, Revision 3, sht. 1,2		I282
549, Revision 2,		

(4) Isolation Condenser Detail Drawings

<u>CBI Dwg.</u>	<u>Impell Ref. Dwg.</u>	<u>ECN</u>
88, Revision 4	D3-RRC1-RP03, Revision 2	62, 69, 104, 128, 118, 115, 164, 194, 385
89, Revision 4	M-3704, Revision 6	98, 121, 286, 374
90, Revision 3	M-3704, Revision 6	289, 375
91, Revision 4	M-3704, Revision 6	116, 117, 153, 173, 179, 198, 204, 227, 233, 248, 274, 283, 290, 319, 333, 376
92, Revision 5	M-3790, Revision 2	55, 142
93, Revision 5	M-3719, Revision 3	97, 257, 275, 291,
	M-3724, Revision 2	305, 320, 348, 377
	M-3751, Revision 2	
	M-3758, Revision 3	
	M-3752, Revision 1	
	M-3799, Revision 2	
	M-3819, Revision 3	

(5) Isolation Condenser Support Dwgs.

<u>CBI Dwg.</u>	<u>ECN</u>
507, Revision 3, sht. 1-3	I 369, I 592
543, Revision 2	
579, Revision	I 312

c. Mechanical Stress Improvement (MSIP)

During this Unit 3 outage most of the IGSCC susceptible piping was replaced. However, some Class 1 piping that was subject to the requirements of NRC Generic Letter 84-11 remained in place. There are 50 welds subject to these requirements. Thirty-five of these welds were scheduled for ultrasonic examination, since these welds were not being replaced. Stress improvement was applied to the welds most susceptible to IGSCC in systems operating over 200° F. Twenty-eight welds were subjected to MSIP and ultrasonically examined after application of MSIP. The licensee elected to use MSIP, developed by O'Donnell and Associates, Inc., Pittsburgh, Pennsylvania, rather than Induction Heating Stress Improvement (IHSI). The NRC did not object to the use of MSIP; however, the amount of stress improvement credit that will be given for this process will be determined after the NRC evaluates the results of testing that is presently being performed.

Dresden is the first nuclear power plant to use this technique (MSIP) for stress improvement. Westinghouse Electric (W) was awarded the contract for application of MSIP, and set up a training section for training of personnel. The NRC inspector discussed this technique with the (W) site supervisor and contacted O'Donnell and Associates for documentation supporting this technique. The NRC inspector reviewed the (W) MSIP procedures listed below, witnessed the training of personnel, and the application of MSIP to selected welds in the drywell.

- ° SE-FP-85-228, Revision 2: Field Service Procedure For Application of MSIP Process to 10-"14" Diameter Welds at Dresden Unit 3.
- ° SE-FP-85-227, Revision 2: Engineering Procedure For Application of the MSIP Process to 10-"14" Diameter Welds at Dresden Unit 3.
- ° SE-FP-85-226, Revision 1: Training Program For Application of the MSIP Process to 10-"14" Diameter Welds at Dresden Unit 3.
- ° QQA-GDR-53-1, Revision 2: W NSID Quality Assurance Program For Application of Mechanical Stress Improvement at Dresden Unit 3.
- ° OPR-610-3, Revision 3: Control of Field Service Activities
- ° OPR-610-2, Revision 2: Preparation For Field Services
- ° OPR-215-1, Revision 4: Measuring and Test Equipment
- ° OPR-210-4, Revision 2: Control of Non-Conformance On NSID Items and Services

MSIP was applied to the following welds in the systems listed below.
MSIP was not applied to any of the welds in the piping that was replaced.

Class 1 Systems

Isolation Condenser - Line No. 1302

<u>Weld No.</u>	<u>Weld No.</u>
14-1	14-6
14-K1A	14-7
14-K2	14-8
14-3	14-9
14-4	14-10
14-5	14-12

Core Spray "A" - Line No. 1403

10-10
10-K11
10-K12
10-K12A
10-13
10-K13
10-K14
10-K15

Core Spray "B" - Line No. 1404

10-44
10-44-C
10-44-D
10-44-E
10-44-F
10-45
10-42

Class 2 Systems

Core Spray

<u>Line No. 1302</u>	<u>Line No. 1302A</u>	<u>Line No. 1302B</u>
14-1	12-1	12-1
14-2	12-2	12r1.1
14-3	12-3	12-2
14-4	12-3.1	12-3
14-5	12-4	12-4
14-5.1	12-5	12-5
14-6	12-6	12-6
14-7		12-7
		14-8
		14-9

d. Inservice Inspection Documentation Review

The inspector reviewed the NDE records identified below of examinations performed by CE of items not being replaced; however, these items were scheduled for inservice examination during this outage.

- Feedwater Nozzle A
Data Sheet No. 1
Calibration Sheet No. 1 and 2
- Feedwater Nozzle B
Data Sheet No. 2
Calibration Sheet No. 1 and 2
- Feedwater Nozzle D
Data Sheet No. 4
Calibration Sheet No. 1 and 2

The following examinations were performed to satisfy actions set forth in NRC Generic Letter 84-11.

- Data Sheet No. D-007 (PT Examination)
RX-Head-N18B,
6B-1 Safe-end Flange.
- Data Sheet No. D-009 (PT Examination)
RX Head, N8, Head Vent,
Nozzle Safe-end.
- Data Sheet No. D-012 (UT Examination)
Calibration Sheet No. C-007
RX Head Vent N8, Safe-end.
- Data Sheet No. D-016 (UT Examination)
Calibration Sheet No. C-013
Rx Head Vent N8, Safe-end.

The following examinations were performed prior to Mechanical Stress Improvement (MSIP):

- Data Sheet No. D-001 (UT Examination)
Calibration Sheet No. C-001
ISO Condenser, Penetration-Pipe
Weld No. 1302-14-9
- Data Sheet No. D-002 (UT Examination)
Calibration Sheet No. C-001
ISO Condenser, Pipe-pipe
Weld No. 1302-14-10
- Data Sheet No. D-003 (UT Examination)
Calibration Sheet No. C-003
ISO Pipe-valve
Weld No. 1302-14-12

- Data Sheet No. D-019 (UT Examination)
Calibration Sheet No. C-017
"A" Core Spray, Pipe-valve
Weld No. 1403-10-10
- Data Sheet No. D-020 (UT Examination)
Calibration Sheet No. C-017
"B" Core Spray, Pipe-elbow
Weld No. 1404-10-46

The following examinations were performed after MSIP:

- Data Sheet No. D-081 (UT Examination)
Calibration Sheet No. C-097
ISO Condenser, Pipe-pipe
Weld No. 1302B-12-2
- Data Sheet No. D-085 (UT Examination)
Calibration Sheet No. C-109 (Long.), C-111 (Shear)
ISO Condenser, Reducer-pipe
Weld No. 1302A-12-1
- Data Sheet No. D-087, (UT Examination)
Calibration Sheet No. C-109 (Long.), C-111 (Shear)
ISO Condenser, Elbow-pipe
Weld No. 1302B-12-6
- Data Sheet No. D-091 (UT Examination)
Calibration Sheet No. 119 (Long.), C-111 (Shear)
ISO Condenser, Pipe-elbow
Weld No. 1302-12-4
- Data Sheet No. D-096 (UT Examination)
Calibration Sheet No. C-127 (Long.), C-129 (Shear)
ISO Condenser, Pipe-elbow
Weld No. 1302A-12-5
- Data Sheet No. D-117 (UT Examination)
Calibration Sheet No. C-168 (L-wave), C-170 (S-wave)

e. Documentation Review (CB&I)

The NRC inspector reviewed the following final CB&I Task Work Packages (TWP) of work performed at Kankakee:

- TWP-NX-50, Control Rod Drive Safe-end
Machining at Kankakee shop
PC MK 27-M-3798-1 - PC MK 27-M-3798-2
- TWP-1175, Recirculation System loop "B"
riser at 245°
PC MK, 45-M-3729 to PC MK, 46-M-3731
Weld Joint No. RRB-09F

- ° TWP-1154, Isolation Condenser System (ISO)
 Penetration No. X-109A, Joint No. ISO-11F
 Valve No. MO-3-1301-1 to PC MK, 93-M-3752
 Joint No. ISO-10F
 Guard pipe to PC MK, 92-M-3790
 Joint No. ISO-11F
 Ext. Penetration to Bellows PC MK 92-1
 Joint No. ISO-12F
- ° TWP-1108, Recirculation System loop "B" N2G
 Safe-end at 215° Joint No. RRB-06F
 PC MK, 12-M-3764 to 12-M-3765
 Joint No. RRB-08F
- ° TWP-1103, Recirculation System loop "A"
 Safe-end, Joint No. RRA-06F and RRA-08F
 PC MK, 12-M-3764 to 12-M-3765
 All N2 safe-ends are identified with
 PC MK, 12-M-3764, 12-M-3765, 1 thru 10, machining
 documentation in TWP-NX-12
- ° TWP-1050, Core Spray System, Removal of CS Pipe Support
- ° TWP-NX 22B, Shop Weld Core Spray Safe-end
 to thermal sleeve loop "B"
 PC MK, 18-M-3766 to 18-M-3812
 Joint No. 02F
- ° TWP-NX-40 Machining of Isolation Condenser Spool Weld Preps:
 - PC MK-93-M-3799, Joint No. ISO-04F
 - PC MK-93-M-3719, Joint No. ISO-01F
 - PC MK-93-M-3790, Joint No. ISO-08F
 - PC MK-92-M-3790, Joint No. ISO-09F
 - PC MK-92-M-3751, Joint No. ISO-07F and 14F
 - PC MK, 93-M-3750, Joint No. ISO-06F
 - PC MK, 93-M-3752, Joint No. ISO-09F and 10F
 - PC MK, 910-5, Joint No. FW-1 and FW-2
 - PC MK, 93-M-3712-2, Joint No. ISO-08F and 14F
 - PC MK, 93-M-3751-A, Joint No. ISO-15F
 - PC MK, 93-M-3724, Joint No. ISO-05F
 - Measuring and polishing reports in package.
- ° TWP-NX20, Machining of Core Spray Spool Weld Preps.
 - PC MK, 53-M-3779 to 53-M-3754, Joint CSA-07F
 - PC MK, 53-M-3754 to Valve A0-3-1402-9B, Joint 08F
 - PC MK, 53-M-3778 to Valve 1402-6B, Joint 05F
 - PC MK, 57-M-3753 to Valve A0-3-1402-9A, Joint CSB-08F
 - PC MK, 57-M-3775 to Valve 3-1402-6A, Joint CSB-06F
 - PC MK, 57-M-3775 to 57-M-3753, Joint CSB-07F
 - PC MK, 57-M-3774 to Valve 3-1402-6A, Joint CSB-05F

- TWP-NX 14A, Recirculation System Loop "A" Shop Weld Header Cross to Discharge Riser/Tee PC MK, 37-M-3716 to 36-M-3713, Joint RRA-2/2F
- TWP-NX 14B, Recirculation System Loop "B" Shop Weld Header Cross to Discharge Riser/Tee PC MK, 47-M-3738 to 46-M-3727, Joint RRB-40F
- TWP-1189, Recirculation System Valves to Spool Machining and Weld Joint.

MD-3-0202-4A to 38-M-3720, Joint RRA 56F
 MD-3-1202-4A to 38-M-3722, Joint RRA-57F
 MD-3-0202-5A to 37-M-3717, Joint RRA-48F
 MD-3-0202-5A to 37-M-3718A, Joint RRA-49F
 MD-3-0202-4B to 48-M-3737, Joint RRB-54F
 MD-3-0202-4B to 48-M-3725A, Joint RRB-55F
 MD-3-0202-5B to 47-M-3771, Joint RRB-46F
 MD-3-0202-5B to 47-M-3726A, Joint RRB-47F
 MD-3-1402-6B to 53-M-3778, Joint CSA 05F
 MD-3-1402-6B to 53-M-3779, Joint CSA-06F
 MD-3-1402-6A to 57-M-3774, Joint CSB-05F
 MD-3-1402-6A to 57-M-3775, Joint CSB-06F
 AD-3-1501-25A to 74-M-3757, Joint LPA 05F
 AD-3-1501-25A to 73-M-3758, Joint LPA-06F
 AD-3-1501-25B to 80-M-3761, Joint LPB-07F
 AD-3-1501-25B to 80-M-3762, Joint LPB-08F
 MD-3-1301-4 to 93-M-3719, Joint ISO-01F
 MD-3-1301-4 to 87-M-3748, Joint ISO-02F
 MD-3-1501-26A to 74-M-3755, Joint LPA-02F

f. Hydrostatic Test

On July 19, 1986, Unit 3 was hydrostatically tested in accordance with ASME Boiler and Pressure Vessel Code Section XI, 1977 Edition, Summer 1979 Addenda and Special Procedure SP-86-5-72, Revision 0, developed in accordance with Dresden Station Procedure DOS-201-2, Revision 10. The NRC inspector reviewed the procedures identified below that are referenced in the hydrostatic test procedure:

- DOS-201-1, Reactor Vessel 1000 PSI Leakage Test
- DOS-201-2, Reactor Vessel ASME Hydrostatic Test
- DMP-200-23, Safety Valve Gagging
- DMP-200-36, Unit 2 and 3 Target Rock Safety/Relief Valve Gagging
- DIS-500-4, Reactor Process Instrument Line Flow Check Valve Operational Test

Parts or all of the systems identified below were included in this test:

- Reactor Recirculation (Recirc)
- Nuclear Boiler (NB)
- Core Spray (CS)

- Reactor Shutdown Cooling (SDC)
- Reactor Water Clean-up (RWCU)
- Isolation Condenser (ISOC)
- Low Pressure Coolant Injection (LPCI)
- Reactor Feedwater (FW)
- Control Rod Drive Hydraulic (CRD)
- Main Steam (MS)
- High Pressure Coolant Injection (HPCI)
- Stand-By Liquid Control (SLC)

System boundaries include all pressure vessels, piping and valves connected to the reactor coolant system to the outer most isolation valves penetrating the primary containment.

A calibrated Heise pressure gage ID No. DK-8 was installed on Rack No. 2203-5 with reactor pressure transmitter No. PT-3-662 used as a backup gage.

Over pressure protection was provided by the SDC heat exchanger relief valve. System test pressure was 1.10 times the normal operating pressure (1005 PSIG) plus a head correction factor of 25 PSIG. Forty PSIG was added as a tolerance for flexibility. Test Pressure = 1.10 (1005 PSIG) +25 PSIG = 1131 +40, -0 PSIG.

Since the insulation was installed the test pressure and temperature was maintained for four hours as required by Article IWA-5213 of Section XI ASME Code, prior to the start of inspection for leakage.

Relief valves were gagged after reaching 600 PSIG. The unit was pressurized at not more than 30 PSIG per minute until test pressure was reached.

System test pressure was reached at 11:45 a.m. and maintained between 1145 and 1150 PSIG.

Inspection personnel were supplied system P&ID and ISI drawings for the performance of their inspection.

The NRC inspector accompanied the inspectors into the containment and inspected portions of the Recirculation, Shutdown Cooling and Core Spray Systems.

The NRC inspector also reviewed the final hydrostatic test documentation. No leakage of welds was identified. There were 13 leaks identified at bolted joints and valve packing.

No violations or deviations were identified.

4. Recoating of the Torus and Isolation Condenser

During this extended outage the licensee blase cleaned and recoated the torus and isolation condenser. Recoating activities were performed by the J. L. Manta Company.

The NRC inspector visually examined the torus following application of the final coat. Coating materials were applied in three applications of four to six mils each, primer, middle coat, and finish coat with a total thickness of 12 to 18 mils. The inspector also reviewed documentation for torus coating activities listed below:

◦ Primer Coat

- Report No. T3-102, Bay 5, Interior centipede
- Report No. T3-108, Bay 5, Inboard and outboard upper shell vent header
- Report No. T3-114, Bay 5, Lower shell
- Report No. T3-103, Bay 5, Interior downcomers
- Report No. T3-105, Bay 8 and 9, Vent system support columns
- Report No. T3-107, Bay 9, Vapor phase inboard and outboard
- Report No. T3-113, Bay 10, Upper downcomers dry film thickness readings 4-6 mils
- Report No. T3-122, Bay 1 and 16, Emersion phase

◦ Intermediate Coat

- Report No. T3-117, Bay 10 and 11, Interior centipede
- Report No. T3-120, Bay 2 and 3, Headers
- Report No. T3-124, Bay 4 and 5, Emersion bay bottom
- Report No. T3-135, Bay 3, Under vent header
- Report No. T3-136, Bay 15 and 16, Interior centipede dry film thickness readings
- Report No. T3-119, Bay 4 and 5, Upper vapor shell
- Report No. T3-130, Bay 8 and 9, Girder emersion phase

◦ Finish Coat

- Report No. T3-144, Bay 4 and 5, Vapor phase
- Report No. T3-146, Bay 5 and 6, Vapor phase and emersion phase
- Report No. T3-161, Bay 1 and 3, SRV pipe interior phase
- Report No. T3-163, Bay 5 and 9, Tee quuncher support brackets (zinc coating)
- Report No. T3-147, Bay 6 and 7, Emersion phase
- Report No. T3-149, Bay 10, Inside downcomers
- Report No. T3-162, All bays, touch-up

No violations or deviations were identified.

5. Exit Interview

The inspector met with licensee representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents as proprietary.