



Entergy Nuclear Northeast
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

Patric W. Conroy
Manager, Licensing
Tel 914 734 6668

August 14, 2006

Re: Indian Point Unit 2
Docket No. 50-247
NL-06-085

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Subject: **2006 Summary Reports for In-Service Inspection and Repairs or Replacements at Indian Point Unit 2**

Dear Sir:

In accordance with ASME Section XI, Code Case N-532-1, "Alternative Requirements to Repair and Replacement Documentation Requirements and In-service Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000," Indian Point Nuclear Generating Unit No. 2 (IP2) hereby submits 2006 Form OAR-1, Owners Activity Report for Inservice Inspections. This report describes in-service inspections, repairs and replacements performed during the period November 2004 through May 2006. IP2's third ten year interval began July 1, 1994.

There are no new commitments being made in this submittal.

If you have any questions or require additional information, please contact me at (914) 734-6668.

Sincerely,

A handwritten signature in black ink, appearing to read "P. W. Conroy", with a date "8/14" written to the right.

Patric W. Conroy
Manager, Licensing
Indian Point Energy Center

Enclosure:

A047

Enclosure:

1. IP2 Owners Activity Report, IP-RPT-06-00090, Rev. 0
 - Table 1 – Abstract of Examinations and Tests
 - Table 2 – Items with Flaws or Relevant Conditions that Required Evaluation for Continued Service
 - Table 3 – Abstract of Repairs, Replacements or Corrective Measures Required for Continued Service

cc: Mr. Samuel J. Collins, Regional Administrator, NRC Region I
Mr. John Boska, Senior Project Manager, NRC NRR DORL
NRC Resident Inspector's Office, Indian Point 2

ENCLOSURE 1 TO NL-06-085

**IP2 OWNERS ACTIVITY REPORT (OAR), FIRST OUTAGE, THIRD PERIOD, THIRD
INTERVAL**

(Report No. IP-RPT-06-00090, Rev. 0)

Table 1 -	Abstract of Examinations and Tests
Table 2 -	Items with Flaws or Relevant Conditions that Required Evaluation for Continued Service
Table 3 -	Abstract of Repairs, Replacements or Corrective Measures Required for Continued Service



Indian Point 2

ENTERGY NUCLEAR NORTHEAST

Engineering Report Title:

IP2 ISI Owners Activity Report (OAR)
Second Outage, Third Period, Third Interval

Engineering Report Type:

New ☒ Revision ☐ Cancelled ☐ Superseded ☐

Applicable Site(s)

IP1 ☐ IP2 ☒ IP3 ☐ JAF ☐ PNPS ☐ VY ☐ WPO ☐

ANO1 ☐ ANO2 ☐ ECH ☐ GGNS ☐ RBS ☐ WF3 ☐

DRN No. ☐ N/A; ☒ _____

Report Origin: ☒ Entergy ☐ Vendor: Vendor Document No.: _____

Quality-Related: ☒ Yes ☐ No

Prepared by: Edwin Rodriguez / [Signature] Date: 8/11/06
Responsible Engineer

Reviewed by: Robert Dolansky / [Signature] Date: 8/11/06
Programs Engineering Review

*Reviewed by: Allan Schiaffino / [Signature] Date: 8/11/06
Authorized Nuclear In-Service Inspector (ANII)

Approved by: Glen Smith / [Signature] Date: 8/11/06
Supervisor - Programs Engineering

Multiple Site Review			
Site	Design Verifier/Reviewer	Supervisor	Date

* For ASME Section XI Code Program plans per ENN-DC-120, if required.

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number IP-RPT-06-00090 Rev. 0

Owner Entergy Nuclear Operations, Inc., 295 Broadway, Suite 1, Buchanan, New York 10511-0249
(Name and Address of Owner)

Plant Indian Point Energy Center, Buchanan, New York 10511-0249
(Name and Address of Plant)

Plant Unit: 2 Commercial Service Date 08/01/1974 Refueling Outage Number 17

Current Inspection Interval 3rd
(1st, 2nd, 3rd, 4th, Other)

Current Inspection Period 3rd
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the Inspection Plan 1989 Edition, No Addenda

Date and Revision of Inspection Plan ISI Program Plan, Rev. 3 No. IP2-RPT-03-00006, Rev. 1 8/15/2005

Edition and Addenda of ASME Section XI applicable to Repairs and Replacements, if different than the Inspection Plan N/A

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owners Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations and corrective measures represented by this report conform to the requirements of Section XI.

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

(If applicable)

Signed

Owner or Owner's designee, Title

Programs + Comp. Eng. Manager Date 8/14/06

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by HSB-CT of Hartford, Connecticut have inspected the items described in this Owners Report during the period November 2004 to May 2006, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

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

[Signature]
Inspector's Signature

Commissions NY 3084 J.N
National Board, State, Province, and Endorsements

Date

8/11/06

TABLE 1

ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For This Period	Total Examinations Credited (%) To Date for The Interval	Remarks
CLASS 1					
B-A	27	6	22%	30%*	*Approved Relief Request RR73 defers RV Category B-A reactor vessel welds by one refueling cycle. Welds have been postponed until the 2R18 2008 RFO. Relief Request RR6r1 RV Closure Head Circ & Meriodonal Welds examined to the extent practical. RV Closure Head area was visually examined (VT-2) during RCS Leakage Test. The head to flange weld was completed this period.
B-B	17	13	76%	100%	Approved Relief Request RR7 - Welds PZRC5 & PZRL4 has been visually examined (VT-2) after each refueling outage. Also, approved Relief Request RR60 - Regen HTX Welds has been visually inspected (VT-2) with the insulation removed during the system leakage test prior to startup after each refueling outage.
B-D	54	20	37%	70%*	*Approved Relief Request RR73 defers RV ASME Items 3.90 & 3.100 by one refueling cycle. Approved Relief Request RR9r1 - In lieu of a volumetric examination (UT) for the Pressurizer Inner Radius Nozzles, a visual examination (VT-1), with Color Capability was performed on assessible nozzles. All nozzles visually examined (VT-2) each reueling outage during system leakage test.
B-E	3	3	33%	100%	VT-2 Performed during RCS Leakage Test at end of each period.
B-F*	22	0	0%	23%*	*Approved Relief Request RR-11r1 defers the RV Safe-end nozzle welds to the end of the Interval. Components within this category are now part of an Augmented Risk-Informed Inspection Program per Relief Request RR-63, NRC SER TAC NO. MC0624. See new category R-A below.
B-G-1	265	138	52%	100%	Code Case N-627 allows the use of a visual examination (VT-1) in lieu of a surface examination, for ASME Item B6.10 RPV head nuts. Also, RCP Bolts, Studs, and flange surface is inspected when disassembled.
B-G-2	81	42	52%	100%	The NDE inspections for Pumps, Valve and CRD Housing may be examined in place under tension, when the connection is disassembled or when the bolting is removed.
B-H*	0	0	0%	0%	*Not Applicable to IP2

TABLE 1

ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For This Period	Total Examinations Credited (%) To Date for The Interval	Remarks
B-J*	203	0	0%	55%*	*Components within this category were inspected as of the first & second periods. Third period exams are now part of an Augmented Risk-Informed Inspection Program per Relief Request RR-63, NRC SER TAC NO. MC0624. See new ASME Category R-A below.
B-K	7	4	57%	100%	Examinations conducted in accordance with Code Case N-509 "Alternate Rules for the Selection and Examination of Class 1, 2, and 3 Integrally Welded Attachments, Section XI Division 1", and approved Relief Request RR38.
B-L-1	3	3	100%	100%	Deferral Permissible. Exams are limited to at least one pump in each group of pumps performing similar functions in the system per Code Case N-481.
B-L-2*	0	0	0%	0%*	*Exam required only when a pump is disassembled for maintenance, repair, or volumetric exam. Exams are limited to at least one pump in each group of pumps performing similar functions in the system per Code Case N-481. No pumps were disassembled this interval.
B-M-1*	0*	0	0%	0%	*Not applicable to IP2 (Valves do not have valve body welds)
B-M-2	4	1	25%	100%*	*Exam required only when a valve is disassembled for maintenance, repair, or volumetric exam.
B-N-1	3*	1	33%	100%	*Examinations performed each period
B-N-2	1	1	100%	100%	Deferred to end of interval as allowed by Table IWB-2500-1
B-N-3	2	2	100%	100%	Deferred to end of interval as allowed by Table IWB-2500-1
B-O	3	3	100%	100%	Deferred to end of interval as allowed by Table IWB-2500-1
B-P	7*	2	29%	100%	*Code Case N-498-4 applied where applicable. Seven outages for the interval - System pressure test
RISK-INFORMED					
R-A*	20*	20*	32%*	100%*	*New Risk Informed (R-A) selection contains 61 Class 1 weld items from Categories B-F & B-J. This was approved via Relief Request RR63 for implementation after the end of the second period. Completion reflect one period requirements.

TABLE 1					
ABSTRACT OF EXAMINATIONS AND TESTS					
Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For This Period	Total Examinations Credited (%) To Date for The Interval	Remarks
CLASS 2					
C-A	7	7	100%	100%	Approved Relief Request RR16 - In lieu of a volumetric examination, a visual examination (VT-2 Performed during Leakage Test for RHR Ht Exchangers).
C-B	12	12	100%	100%	Approved Relief Request RR16 - In lieu of a surface examination (PT) for the RHR HTX, a visual examination (VT-2) is performed once per period. Approved Relief Request RR25 - In lieu of a volumetric examination (UT) for the Steam Generator Nozzles a VT-2 is performed once/interval. Also, one FW nozzle was surface examined.
C-C	27	12	44%	100%	Approved Relief Request RR16 - In lieu of a surface examination (PT) for the RHR HTX, a visual examination (VT-2) is performed during Leakage Test PT-R75.Code Case N-509 applied.
C-F-1	60	19	32%	100%	Approved Relief Request RR34r1 ASME Items C5.11N & C5.12N are Thin Wall Piping Augmented Examinations. Entergy agreed to perform thin wall augmented examinations. The program will examine 7.5% of the welds in the population distributed within that population. Count does not include Longitudinal welds, Code Case N-524.
C-F-2	28*	11*	39%	100%	*Count does not include longitudinal welds in Code Case N-524
C-H	3*	1	33%	100%	*Pressure test for each period of interval.
CLASS 3					
D-A	21	11	52%	100%	Code Case N-509 applies.
D-A	3*	3	33%	100%	*Pressure tests. System hydrostatic tests are counted as a required exam even though they are not performed as allowed by Code Case N-498-1.
IWF Component Supports					
F-A	241	107	44%	100%	Code Case N-491 applies.

TABLE 1

ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For This Period	Total Examinations Credited (%) To Date for The Interval	Remarks
Containment - IWE/IWL Third Period - First Interval					
E-A	166	166	100%	100%	General Visual examinations included all accessible interior and exterior surfaces of Class MC components, parts, and appurtenances, and metallic shell and penetration liners of Class CC components. (Table IWE-2500-1) ASME Code 1992 Edition, 1992 Addenda
E-C	10	10	100%	100%	Augmented exams for Openings 1-5 & 8-12, UT Thickness Exam ASME 1992 Edition, 1992 Addenda
E-D	6	2	33%	100%	Moisture Barrier, VT-3 Exam ASME Code 1992 Edition, 1992 Addenda
E-G	18	6	33%	100%	Airlock Bolt VT-1 Examination ASME Code 1992 Edition, 1992 Addenda
L-A	48	48	100%	100%	Concrete Containment VT-3C Examination ASME Code 1992 Edition, 1992 Addenda

TABLE 2			
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE			
Examination Category	Item Number	Flaw Characterization (IWA-3300)	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
C-B	SGN 23R- 2	CR-IP2-2006-02723 - Found a recordable indication. The indication is subsurface, not connected to the Inside Diameter (ID) and has Ultrasonic Testing (UT) characteristics consistent with fabrication anomaly. The UT examination results were compared to the preservice radiographic inspection report (and verified on the film) which showed porosity and slag inclusions in the area of the indication. The indication is not service induced. Based on the crack growth evaluation the as found indication meets ASME Section XI Code, 1989 Edition No Addenda flaw acceptance criteria and is acceptable for the duration of plant life. No repair is necessary.	YES
C-F-1	Weld 16 - 193	CR-IP2-2006-01962 - A subsurface indication was found. The weld was then ground-flush to allow for sizing of the indication. The indication is not connected to the ID and was characterized and sized as a subsurface indication and found to be acceptable for continued service in accordance with ASME Section XI Code, 1989 Edition No Addenda. No further actions are required.	YES

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

R/R Item Plan No.	Code Quality Group	Repair / Replacement or Corrective Measure	Item Description and Description of Work	Flaw or Relevant Condition Found During Scheduled Examination or Test (Yes/No)	Date Completed
04-2-01	C	Replacement	SWN-9-4 – Replace vacuum breaker	No	12/5/2005
04-2-02	C	Repair	SW-1807 – Repair leak in weld	No	12/23/2004
04-2-03	C	Replacement	Line 413 – Build up weld thickness	No	12/28/2004
04-2-04	C	Replacement	SWN-66 – Replace flexible coupling	No	1/25/2005
05-2-01	C	Repair	SW-1793 – Repair leak in weld	No	2/23/2005
05-2-02	C	Repair	SWN-81 – Repair leak in weld	No	2/14/2005
05-2-03	C	Repair	SWN-34-1 – Repair leak in weld	No	3/30/2005
05-2-04	A	Replacement	PCV-466 – Replace valve (24 month PM)	No	5/11/2006
05-2-05	A	Replacement	PCV-468 – Replace valve (24 month PM)	No	5/11/2006
05-2-06	A	Replacement	PCV-464 – Replace valve (24 month PM)	No	5/11/2006
05-2-08	C	Replacement	SWN-71-1A – Replace valve yoke	No	4/29/2006
05-2-09	C	Replacement	SWN-71-4A – Replace valve yoke	No	4/29/2006
05-2-10	C	Replacement	SWN-71-4B – Replace valve yoke	No	5/2/2006
05-2-11	C	Replacement	PCV-1221 – Replace flange bolts	No	6/1/2005
05-2-12	C	Replacement	394E – Replace bonnet	No	6/13/2005
05-2-13	C	Replacement	316C – Replace bonnet	No	6/13/2005
05-2-14	A	Replacement	ACH-576 – Replace bent hanger rod	No	5/12/2006
05-2-17	C	Replacement	347 – Replace bonnet	No	6/13/2005

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

R/R Item Plan No.	Code Quality Group	Repair / Replacement or Corrective Measure	Item Description and Description of Work	Flaw or Relevant Condition Found During Scheduled Examination or Test (Yes/No)	Date Completed
05-2-23	B	Replacement	332 – Replace valve	No	5/4/2006
05-2-24	A	Replacement	21RCP – Replace flange bolts on line-41	No	5/12/2006
05-2-25	A	Replacement	22RCP – Replace flange bolts on line-42	No	5/12/2006
05-2-26	A	Replacement	24RCP – Replace flange bolts on line-44	No	5/12/2006
05-2-27	A	Replacement	23RCP – Replace flange bolts on line-43	No	5/12/2006
05-2-35	C	Replacement	Line-463 – Replace piping and supports	Yes	5/8/2006
05-2-37	C	Replacement	Line-414 – Replace piping	Yes	5/3/2006
05-2-40	C	Replacement	Line-413 – Replace piping	Yes	5/5/2006
05-2-41	C	Replacement	Line-463 – Replace piping	Yes	5/7/2006
05-2-42	C	Replacement	Line-413 – Replace piping and supports	Yes	2/28/2006
05-2-44	C	Replacement	ACH-335 – Replace missing load flange	No	5/5/2006
06-2-01	B	Replacement	23CHP – Replaced pump block	Yes	1/27/2006
06-2-02	B	Repair	PR-11 – Replace missing tack welds on spacer channel	No	5/3/2006
06-2-03	C	Replacement	25SWPS – 6 Month PM strainer replacement	No	1/30/2006
06-2-04	C	Replacement	26SWPS – 6 Month PM strainer replacement	No	3/7/2006
06-2-05	MC	Replacement	95Airlock – Drill two 1 ½" holes in Equipment Hatch stiffener plates	No	4/12/2006
06-2-06	C	Replacement	21EDJC – Temp. Alt. to re-route Service Water to storm drain	No	4/27/2006

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

R/R Item Plan No.	Code Quality Group	Repair / Replacement or Corrective Measure	Item Description and Description of Work	Flaw or Relevant Condition Found During Scheduled Examination or Test (Yes/No)	Date Completed
06-2-08	B	Replacement	284 – Replace valve	No	5/2/2006
06-2-09	C	Replacement	23EDJC – Temp. Alt. to re-route Service Water to storm drain	No	4/22/2006
06-2-10	A	Replacement	70-SR-10 – Replace Bergen Patterson snubber with Lisega	No	4/30/2006
06-2-11	C	Replacement	SR-1037A – Replace Bergen Patterson snubber with Lisega	No	4/28/2006
06-2-12	C	Replacement	SR-1039A – Replace Bergen Patterson snubber with Lisega	No	4/28/2006
06-2-13	C	Replacement	SR-1057 – Replace Bergen Patterson snubber with Lisega	No	4/28/2006
06-2-14	C	Replacement	SR-1099 – Replace Bergen Patterson snubber with Lisega	No	5/2/2006
06-2-15	B	Replacement	SR-737 – Replace Bergen Patterson snubber with Lisega	No	4/26/2006
06-2-16	B	Replacement	SR-752A – Replace Bergen Patterson snubber with Lisega	No	4/27/2006
06-2-17	B	Replacement	SR-761 – Replace Bergen Patterson snubber with Lisega	No	5/10/2006
06-2-18	C	Replacement	SR-927 – Replace Bergen Patterson snubber with Lisega	No	5/1/2006
06-2-19	A	Replacement	PWR-152 – Replace Bergen Patterson snubber with Lisega	No	5/7/2006
06-2-20	A	Replacement	SR-809A – Replace Bergen Patterson snubber with Lisega	No	5/4/2006
06-2-21	B	Replacement	MSR-1V – Replace Bergen Patterson snubber with Lisega	No	4/30/2006
06-2-22	B	Replacement	SR-746B – Replace Bergen Patterson snubber with Lisega	No	5/8/2006
06-2-23	B	Replacement	SR-50A – Replace Bergen Patterson snubber with Lisega	No	5/9/2006
06-2-24	B	Replacement	SR-M51 – Replace Bergen Patterson snubber with Lisega	No	5/4/2006
06-2-25	C	Replacement	23-SWPS – Replace pump strainer	No	3/29/2006

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

R/R Item Plan No.	Code Quality Group	Repair / Replacement or Corrective Measure	Item Description and Description of Work	Flaw or Relevant Condition Found During Scheduled Examination or Test (Yes/No)	Date Completed
06-2-28	A	Replacement	PCV-455A – Replace trim and bonnet assembly	No	5/11/2006
06-2-29	A	Replacement	PCV-455B – Replace trim and bonnet assembly	No	5/13/2006
06-2-30	B	Repair	23CHPS – Repair pin hole leak in seal weld on Stabilizer Separator	No	4/12/2006
06-2-31	B	Replacement	23CHPS – Replace ¾" threaded pipe and seal weld on Stabilizer Separator	No	4/18/2006
06-2-32	B	Replacement	MP-W – Replace bolting on mechanical penetration	No	4/27/2006
06-2-33	B	Replacement	PSUP29-H-101 – Reroute ¾" Recirc. Mini flow, 2" test line and pipe support	No	5/18/2006
06-2-34	C	Replacement	SWN-76-1 – Remove Temp. Alt. and install drain valve on line-463	Yes	5/3/2006
06-2-35	B	Replacement	1805 – Replace bolting, tack weld nuts to flange and seal weld sump liner to 18" line-57	No	5/18/2006
06-2-36	B	Replacement	SR-737A – Replace snubber with Bergen Patterson snubber	No	5/6/2006
06-2-37	B	Repair	23SG – Repair primary manway bolt hole threads with threaded inserts	No	5/6/2006
06-2-39	B	Repair	24SG – Repair primary manway bolt hole threads with threaded inserts	No	5/6/2006
06-2-40	B	Repair	21SG – Repair primary manway bolt hole threads with threaded inserts	No	5/8/2006
06-2-41	B	Repair	1836 – Replace valve and fasteners	No	5/3/2006
06-2-42	B	Replacement	FI-115B – Replace bolting	No	5/12/2006
06-2-43	A	Replacement	22SG – Replaced damaged stud on primary manway	Yes	5/11/2006
06-2-44	B	Replacement	1813 – Add shim plate to actuator support	No	5/5/2006

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

R/R Item Plan No.	Code Quality Group	Repair / Replacement or Corrective Measure	Item Description and Description of Work	Flaw or Relevant Condition Found During Scheduled Examination or Test (Yes/No)	Date Completed
06-2-45	A	Replacement	23SG – Replace one nut on primary manway stud	Yes	5/11/2006
06-2-46	C	Replacement	LINE-413 – Install spacer due to pipe misalignment	No	5/6/2006
06-2-47	B	Replacement	MS-3A – Replace bonnet and bolting	No	5/13/2006
06-2-48	B	Replacement	MS-1-24 – Replace stud and nut	No	5/13/2006
06-2-49	B	Replacement	MS-3D – Replace bonnet studs and nuts	No	5/13/2006
06-2-50	C	Replacement	790 – Replace bolting	No	5/12/2006
06-2-51	B	Replacement	SR-1025 & 1025A – Relocate supports due to interference	No	5/14/2006
06-2-52	B	Replacement	LINE-293 – Replace FI-3300 with 2" coupling	No	5/23/2006
06-2-53	C	Replacement	FCV-625 – Replace bonnet bolting	No	5/12/2006
06-2-56	B	Replacement	1818 – Replace valve body	No	5/16/2006