UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

December 13, 2012

Mr. Robert G. Smith
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION – NRC SUPPLEMENTAL INSPECTION REPORT 0500293/2012009 AND ASSESSMENT FOLLOW-UP LETTER

Dear Mr. Smith:

On November 15, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection pursuant to Inspection Procedure (IP) 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," at your Pilgrim Nuclear Power Station. The enclosed inspection report (IR) documents the inspection results, which were discussed on November 15, 2012, with you and members of your staff.

As required by the NRC Reactor Oversight Process Action Matrix, this supplemental inspection was conducted because a finding of low to moderate safety significance (White) was identified in the third quarter of 2011, and involved the failure of Pilgrim Nuclear Power Station personnel to carry out their assigned roles and responsibilities and to adequately implement conduct of operations and reactivity control standards and procedures during a reactor startup on May 10, 2011, which resulted in a reactor scram. Entergy responded by letter dated October 3, 2011. After considering the statements in Entergy's response letter, the results were conveyed to you in a letter dated November 21, 2011, "FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING, WITH ASSESSMENT FOLLOWUP; NOTICE OF VIOLATION, NRC INSPECTION REPORT NO.05000293/2011013 – PILGRIM POWER STATION" (ML112440100). The NRC staff was informed on September 5, 2012 of your staff's readiness for this supplemental inspection.

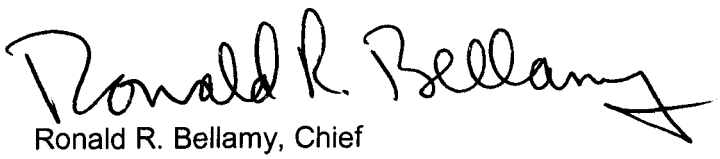
The objectives of this supplemental inspection were to provide assurance that: (1) the root causes and the contributing causes for the risk-significant issues were understood; (2) the extent of condition and extent of cause of risk significant performance issues were identified; and (3) corrective actions for risk significant performance issues are sufficient to address the root and contributing causes and prevent recurrence. The inspection consisted of examination of activities conducted under your license as they related to safety, compliance with the Commission's rules and regulations, and the conditions of your operating license. The NRC concluded that, overall, the inspection objectives were met. However, some observations regarding the root cause and the extent and quality of Entergy's corrective actions were noted. Taken collectively, these observations were not considered significant weaknesses in that they

did not represent a substantial inadequacy in Entergy's evaluation of the causes of the performance issue, determination of the extent of the performance issue, or actions taken or planned to correct it.

Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," and the results of the inspection, the White finding will be closed and Pilgrim will transition from the Regulatory Response Column of the NRC's Action Matrix to the Licensee Response Column as of the date of this letter.

In accordance with 10 CFR 2.930 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available for public inspection in the NRC Public Document Room or from the Publically Available Records System (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,



Ronald R. Bellamy, Chief
Projects Branch 5
Division of Reactor Projects

Docket No: 50-293
License No: DPR-35

Enclosure:
Inspection Report 05000293/2012009
w/Attachment: Supplementary Information

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did not represent a substantial inadequacy in Entergy's evaluation of the causes of the performance issue, determination of the extent of the performance issue, or actions taken or planned to correct it.

Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," and the results of the inspection, the White finding will be closed and Pilgrim will transition from the Regulatory Response Column of the NRC's Action Matrix to the Licensee Response Column as of the date of this letter.

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Sincerely,

/RA/

Ronald R. Bellamy, Chief
Projects Branch 5
Division of Reactor Projects

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DOCUMENT NAME: G:\DRS\Operations Branch\DAntonio\Pilgrim 95001\Pil 95001 2012-009 redone.docx
ADAMS ACCESSION NUMBER: ML12348A459

☑ SUNSI Review		☑ Non-Sensitive ☐ Sensitive		☑ Publicly Available ☐ Non-Publicly Available	
OFFICE	RI/DRS/OB	RI/DRP	RI/DRP		
NAME	JDAntonio*	BSmith*	RBellamy		
DATE	12/11/12	12/12/12	12/13/12		

* see previous concurrence

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket No.:	50-293
License No.:	DPR-35
Report No.:	05000293/2012009
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Pilgrim Nuclear Power Station
Location:	600 Rocky Hill Road Plymouth, MA 02360-5528
Dates:	November 12, 2012 through November 15, 2012
Inspectors:	Joseph D'Antonio, Senior Operations Engineer Justin Heinley, Resident Inspector
Approved by:	Ronald R. Bellamy, Chief Reactor Projects Branch 5 Division of Reactor Projects

Summary of Findings

IR 05000293/2012009; 11/12/2012 – 11/15/2012; Pilgrim Nuclear Power Station; Supplemental Inspection – Inspection Procedure (IP) 95001.

A Region I senior operations inspector and the resident inspector from Three Mile Island performed this inspection.

NRC-Identified and Self-Revealed Findings

Cornerstone: Initiating Events

The NRC staff performed this supplemental inspection in accordance with IP 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," to assess Entergy's root cause evaluation and corrective actions taken in response to a reactor scram during a reactor startup and heatup on May 10, 2011. The NRC staff previously characterized this issue as having low to moderate safety significance (White), as documented in NRC Inspection Report 05000293/2011012 (ML112440100). The significance determination was finalized in a November 21, 2011 letter from the NRC to Mr. Robert Smith, Site Vice President of Pilgrim Nuclear Power Station, "FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING, WITH ASSESSMENT FOLLOW-UP; NOTICE OF VIOLATION, NRC INSPECTION REPORT NO. 05000293/2011013 – PILGRIM NUCLEAR POWER STATION."

Entergy identified the root cause of the issue as: "The root cause of this event was the failure to adhere to established standards and expectations due to a lack of consistent supervisory and management enforcement."

As documented in NRC Inspection Report 05000293/2011012 (ML112440100), the special inspection team reviewed the root cause evaluation and concluded that the root cause evaluation was thorough and appeared to identify the underlying casual factors. In the period between the completion of the special inspection in July 2011, and this supplemental inspection in November 2012, Entergy has had no further reactivity mismanagement events. Based on the results of this inspection, the inspectors concluded that, in general, Entergy had adequately performed a root cause evaluation of the May, 2011 event. Additionally, the inspectors concluded that the combined effect of the completed and planned corrective actions taken were reasonable to address the related performance issues. The inspectors also had several observations. These observations were not considered significant in that they did not represent a substantial inadequacy in Entergy's evaluation of the causes of the performance issue, determination of the extent of the performance issue, or actions taken or planned.

As a result of this supplemental inspection, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program," the White finding associated with the May, 2011 event is closed and Entergy will transfer to the Licensee Response Column of the NRC's action matrix as of the date of the cover letter to this report.

Other Findings

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA4 Supplemental Inspection (95001)

.01 Inspection Scope

The NRC staff performed this supplemental inspection in accordance with IP 95001 to assess Entergy's evaluation of a White finding, which affected the Initiating Events cornerstone in the Reactor Safety strategic performance area. The inspection objectives were:

- To provide assurance that the root causes and contributing causes of risk-significant performance issues are understood;
- To provide assurance that the extent of conditions and extent of cause of risk-significant performance issues are identified;
- To provide assurance that the licensee's corrective actions for risk-significant performance issues are sufficient to address the root and contributing causes and prevent recurrence.

On May 10, 2011, with reactor thermal power at approximately 1.7 percent, Pilgrim Station experienced an intermediate range monitor (IRM) hi-hi flux reactor scram during a reactor startup and heatup. In accordance with Inspection Manual Chapter 0309, a special inspection team was chartered on May 13, 2011, to evaluate operator performance and organizational decision-making. Entergy entered this event into the corrective action program as CR-PNP-2011-02475 and performed a root cause evaluation of the event. Entergy's root cause evaluation (RCE), "Root Cause Evaluation Report, Reactor Scram on IRM Hi-Hi Flux, CR-PNP-2011-2475, Event Date: 05-10-2011" identified one root cause and four contributing causes. The RCE and the CR identified a total of 87 corrective actions.

The special inspection took place from May 16, 2011 through July 20, 2011 and the results were documented in Inspection Report 05000293/2011012 (ML112440100). A self-revealing finding with a preliminary low to moderate safety significance (preliminary White) was identified. The finding was associated with the failure of Pilgrim personnel, including licensed Reactor Operators and Senior Reactor Operators, to implement conduct of operations and reactivity control standards and procedures during a reactor startup, which contributed to an unrecognized subcriticality followed by an unrecognized return to criticality and subsequent reactor scram. The finding was characterized as having low to moderate (White) safety significance based on the criteria contained in IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria."

Entergy responded by letter dated October 3, 2011. After considering the statements in Entergy's response letter, the results were conveyed to Entergy in a letter dated November 21, 2011, "FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING, WITH ASSESSMENT FOLLOWUP; NOTICE OF VIOLATION, NRC INSPECTION REPORT NO. 05000293/2011013 – PILGRIM POWER STATION,"

(ML112440100). Additionally, Pilgrim Station entered the Regulatory Response Column of the NRC's Action Matrix on November 21, 2011 as a result of one inspection finding of low to moderate (White) safety significance.

Entergy performed a readiness review from April 16, 2012 to July 20, 2012 to assess the station's readiness for a 95001 inspection for the May 10, 2011 event. The results were documented in LO-PNPLO-2012-2025, "Snapshot Assessment/Benchmark ON: PNPS 95001 Readiness" The review determined that the RCE was comprehensive and corrective actions complete with some exceptions.

Entergy staff informed the NRC staff on September 5, 2012 that they were ready for the supplemental inspection.

The inspectors reviewed Entergy's root cause and condition report for the scram, reviewed applicable corrective action program documents, interviewed operations crew personnel, and observed a crew simulator evaluation and crew activities in the control room. The inspectors also held discussions with licensing, reactor engineering, training, and operations personnel to ensure that the root and contributing causes were understood and corrective actions taken or in progress were appropriate to address the identified causes and to prevent recurrence of the original issue. In addition, the lead inspector had performed control room observations from June 28 to July 2, 2012, including a power maneuver and rod pattern adjustment.

.02 Evaluation of the Inspection Requirements

02.01 Problem Identification

a. *IP 95001 requires that the inspection staff determine that the licensee's evaluation of the issue documents who identified the issue (i.e., licensee-identified, self-revealing, or NRC-identified) and the conditions under which the issue was identified.*

The inspectors noted that while Entergy's root cause evaluation did not explicitly identify who identified the issue, it does provide sufficient detail on how the issue developed to determine that the issue was self-revealing. NRC IMC 0612, paragraph 3.17, defines self revealing and states, in-part:

> "Self revealing findings or violations are those developed from issues that become self-evident and require no active and deliberate observation by the licensee or NRC inspectors to determine whether a change in process or equipment capability or function has occurred. Self revealing issues become readily apparent to either NRC or licensee personnel through a readily detectable degradation in the material condition, capability, or functionality of equipment or plant operations and require minimal analysis to detect. Examples of self revealing findings and violations include those revealed through: reactor trips and secondary plant transients...."

Specifically, the "Event Narrative" of the root cause evaluation describes crew and individual actions leading to the reactor scram.

Overall, the inspectors determined that Entergy's root cause evaluation adequately documents that this was a self-revealing issue.

b. *IP 95001 requires that the inspection staff determine that the licensee's evaluation of the issue documents how long the issue existed and prior opportunities for identification.*

Entergy does not explicitly state how long the issues leading to this event existed. The root cause evaluation documented a review of internal and external operating experience. The internal review identified numerous instances of failure to adhere to standards and expectations or to follow procedures, none of which resulted in a reactivity mismanagement. The external review did provide many examples of relevant operating experience, including reactivity mismanagement events.

Overall, the inspectors determined that Entergy's root cause evaluation effectively documented that the issue of compliance with standards and expectations had existed for several years and documented prior opportunities for identification from both site and industry operating experience.

c. *IP 95001 requires that the inspection staff determine that the licensee's evaluation documents the plant specific risk consequences, as applicable, and compliance concerns associated with the issue(s).*

Entergy's root cause evaluation documented the safety consequences of this event. The licensee stated that ineffective adherence to standards and expectations and inability to carry out fundamental behaviors during a reactivity manipulation represent a serious challenge to safe operation. However, this particular event did not challenge safety limits or fission product barriers and presented no radiological or industrial safety challenges.

Overall, the inspectors determined that Entergy's evaluation documented the plant specific risk consequences and compliance concerns associated with the issue and was consistent with the NRC's evaluation.

d. Findings

No findings were identified.

02.02 Root Cause, Extent of Condition, and Extent of Cause Evaluation

a. *IP 95001 requires that the inspection staff determine that the licensee evaluated the issue using a systematic methodology to identify the root and contributing causes.*

Entergy used the following systematic methods to complete the root cause evaluation: Event Timeline, Barrier Analysis, Why Staircase, and an Organizational and

Programmatic Weakness Evaluation. Entergy identified one root cause and four contributing causes. Entergy determined the root cause of the event to be:

> "The root cause of this event was the failure to adhere to established standards and expectations due to a lack of consistent supervisory and management enforcement."

The inspectors determined that Entergy had evaluated the issue using systematic methodologies to identify root and contributing causes.

b. *IP 95001 requires that the inspection staff determine that the licensee's root cause evaluation was conducted to a level of detail commensurate with the significance of the issue.*

Entergy's root cause evaluation included the use of a combination of root cause assessment methods that are complimentary. A collective review of the root and contributing causes did not result in the identification of any additional fundamental issues.

The inspectors observed that, in one case, the "why staircase" and contributing cause discussion did not explicitly address a relevant factor. Specifically, contributing cause 2, "Weaknesses in Just-In-Time Training" (JITT) states that not all personnel involved in the startup had attended the JITT, and the content of JITT did not address the regime of operation where the trip occurred. The root cause does not identify that personnel missed the JITT due to a schedule change which moved up the startup date and that meeting the new schedule prevented getting all personnel to training. In addition, the reactor was restarted after this event without correcting the inadequate JITT. The responsible manager for the RCE was interviewed and stated that there was a recognition of the time pressure resulting from moving up the startup date. Nonetheless, the inspectors consider the failure to specifically address the element of poor organizational response to time pressure in the RCE to be a weakness. The inspectors noted there are corrective actions to address these issues.

Despite this observation, the inspectors determined that the licensees' root cause evaluation was generally conducted to a level of detail commensurate with the significance of the issue.

c. *IP 95001 requires that the inspection staff determine that the licensee's root cause evaluation included a consideration of prior occurrences of the issue and knowledge of Operating Experience.*

The root cause evaluation documented a review of internal and external operating experience. The internal review identified numerous instances of failure to adhere to standards and expectations or to follow procedures, none of which resulted in a reactivity mismanagement. The external review did provide many examples of relevant operating experience, including reactivity mismanagement events.

Overall, the inspectors determined that Entergy's root cause evaluation included a consideration of prior occurrences of the issue and knowledge of operating experience.

d. *IP 95001 requires that the inspection staff determine that the licensee's root cause evaluation addresses the extent of condition and extent of cause of the issue.*

Extent of condition. Entergy's root cause evaluation addressed the extent of condition for the event. The condition identified was:

Root Cause:

> "The root cause of this event was the failure to adhere to established standards and expectations due to a lack of consistent supervisory and management enforcement."

Contributing Causes:

- Weakness in Monitoring
- Weakness in Just-In-Time-Training
- Procedural Guidance Not Optimum
- Weakness in Teamwork

The discussion of these causes determined that they were applicable to conduct of operations in general, not limited to one individual, one crew, or this particular evolution.

Extent of Cause. The root cause evaluation team considered the extent of cause associated with the root cause and determined that the issue of ineffective reinforcement of standards and expectations was potentially applicable to other station departments. Certain corrective actions address this concern beyond the two departments directly involved in this event.

Overall, the inspectors determined that Entergy's root cause evaluation addressed the extent of cause of the issue.

e. *IP 95001 requires that the inspection staff determine that the licensee's root cause, extent of condition, and extent of cause evaluations appropriately considered the safety culture components as described in IMC 0305.*

Entergy performed a safety culture evaluation and considered the safety culture aspects of Work Practices, and Continuous Learning to be applicable to this issue. Corrective actions have been completed taking into consideration the input of the safety culture aspects.

The inspectors noted that the contributing cause of "Procedure Guidance Not Optimum" was not evaluated as applicable to the "Resources" component, and the impact of time pressure on the contributing cause "Weaknesses In Just-In-Time-Training" was not evaluated as applicable to the "Safety Policies" component. Corrective actions for these issues were identified as part of the main CR for this event. Overall, the inspectors determined the root cause evaluation included a proper consideration of whether the root cause, extent of condition, and extent of cause evaluations appropriately considered the safety culture components.

f. Findings

No findings were identified.

02.03 Corrective Actions

a. *IP 95001 requires that the inspection staff determine that (1) the licensee specified appropriate corrective actions for each root and/or contributing cause, or (2) an evaluation that states no actions are necessary is adequate.*

The root cause evaluation and CR document corrective actions for the root cause, contributing causes and corrective actions for other issues. The inspectors reviewed all of the corrective actions to ensure that they addressed the identified causes. The inspectors found the corrective actions to be extensive and thorough with regard to addressing both the specific performance deficiencies identified with this event, and the management and supervisory deficiencies which allowed it to happen. Observations, reviews, and interviews performed by the inspectors indicate that the impact of these corrective actions has been pervasive throughout conduct of operations and training.

The inspectors did note one inconsistency in corrective actions requiring training. The licensee's root cause evaluation identified the need to perform additional training and implement oversight qualification programs as corrective actions to address the root and contributing causes. The inspectors identified that the scheduled performance frequency of the training was inconsistent between the root and contributing causes corrective actions. Specifically, the inspectors identified training evolutions for supervisors and operations staff, which were directed as corrective actions for the root cause, that were scheduled as a one-time occurrence. However, additional training used to correct contributing causes was scheduled to be performed on a continual basis. The licensee entered the inconsistency into their CAP as CR-PNP-2012-05305 for evaluation.

Overall, the inspectors found that Entergy specified appropriate corrective actions for the root cause, contributing causes, extent of condition, and extent of cause.

b. *IP 95001 requires that the inspection staff determine that the licensee prioritized corrective actions with consideration of risk significance and regulatory compliance.*

The inspectors reviewed the prioritization of the corrective actions and verified that the prioritization was based on appropriate consideration of risk significance and regulatory compliance.

Overall, the inspectors determined that Entergy had established an appropriate schedule for implementing and completing the corrective actions.

c. *IP 95001 requires that the inspection staff determine that the licensee established a schedule for implementing and completing the corrective actions.*

Entergy's corrective actions and proposed corrective action plan provided dates for completion of actions as described in the root cause evaluation. As of the issue date of this report, all corrective actions have been completed with the exception of one new CA number 88 has been open for the CR discussed in paragraph "a".

d. *IP 95001 requires that the inspection staff determine that the licensee developed quantitative and/or qualitative measures of success for determining the effectiveness of the corrective actions to prevent recurrence.*

The inspectors determined that the root cause evaluation included an effectiveness review plan for the corrective actions to prevent recurrence. This plan included fleet observations of four scheduled reactor downpowers, internal and external observation of 13 other power maneuvers, verification of changes to just-in-time training and verification of satisfactory completion of simulator training related to the event.

e. *IP 95001 requires that the inspection staff determine that the licensee's planned or taken corrective actions adequately address a Notice of Violation (NOV) that was the basis for the supplemental inspection, if applicable.*

As required by the NRC Reactor Oversight Process Action Matrix, this supplemental inspection was conducted because a finding of low to moderate safety significance (White) was identified in the third quarter of 2011. This issue was documented in NRC Special Inspection Report 05000293/2011012, dated September 1, 2011, and involved the failure of Pilgrim Nuclear Power Station personnel to carry out their assigned roles and responsibilities and to adequately implement conduct of operations and reactivity control standards and procedures during a reactor startup on May 10, 2011, which resulted in a reactor scram. Entergy responded by letter dated October 3, 2011. After considering the statements in Entergy's response letter, the results were conveyed to Entergy in a letter dated November 21, 2011, "FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING, WITH ASSESSMENT FOLLOWUP; NOTICE OF VIOLATION, NRC INSPECTION REPORT NO. 05000293/2011013 – PILGRIM POWER STATION" (ML112440100).

The letter concluded that information regarding: (1) the reason for the violations; (2) the actions planned or already taken to correct the violations and prevent recurrence; and (3) the date when full compliance was achieved, were already adequately addressed on the docket in NRC Inspection Report 05000293/2011012 and in the Entergy response letter dated October 3, 2011.

The inspectors noted that the issue date of the RCE was prior to the issue date of the White finding, and that the White finding was not explicitly mentioned in the corrective actions. At the request of the inspectors, the facility performed a review to ensure all elements of the White finding were addressed by the corrective actions. The results of this review were provided to the NRC on December 7, 2012. The inspectors verified that all elements of the White finding were appropriately addressed.

f. Findings

No findings were identified.

02.04 Evaluation of IMC 0305 Criteria for Treatment of Old Design Issues

This part of IP 95001 was not implemented as Entergy did not request credit for self-identification of an old design issue and the finding did not meet the requirements of IMC 0305 paragraph 04.18 for consideration as an old design issue.

4OA6 Exit Meeting

On November 15, 2012, the inspectors presented the inspection results to Mr. R. Smith, Site Vice President, and other members of his staff, who acknowledged the results. The inspection team confirmed that proprietary information reviewed during the inspection was returned to Entergy.

ATTACHMENT: SUPPLEMENTAL INFORMATION

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

Robert Smith, Site Vice President
Gary James, Reactor Engineering Manager
Dave Noyes, Operations Manager
Dave Mannai, Sr. Manager Nuclear Safety and Licensing
Joe Lynch, Licensing Manager
John House, Supervisor of Initial Operator Training
Randy Haislett, Assistant Operations Manager for Training
Mike Hettner, Shift Manager
Ken Gracia, Shift Manager
Mert Probasco, Shift Manger
John Ohrenberger, Shift Manager
Paul Gallant, Shift manager
Tony Toman, RO, Instructor

NRC Personnel

Joseph M. D'Antonio, Senior Operations Engineer
Justin Heinley, Resident Inspector, Three Mile Island

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Closed

05000293/2011012-01	NOV	Failure to Implement Conduct of Operations and Reactivity Control Procedures during Reactor Startup.

LIST OF DOCUMENTS REVIEWED

Procedures

EN-OP-117 "Managers Guide for Operations Assessments/Observations," Rev. 3
PNPS 1.3.34 "Operations Administrative Policies and Processes," Rev. 121
"What It Looks Like" sheet for management observations of briefings
EN-HU-102 "Human Performance Traps and Tools," Rev. 12
EN-OP-103 Reactivity Management Program, Rev. 5
PNPS 2.1.4 Approach to Critical and Plant Heatup, Rev. 28

EN-OP-116 "Infrequently Performed Tests or Evolutions," Rev. 10
PNPS 2.1.1 Startup from Shutdown
PNPS 2.2.88 "Reactor Manual Control System," Rev. 30
PNPS 2.4.11.1"CRD System Malfunctions," Rev. 22
PNPS 1.3.63 "Conduct of Event Review Meetings," Rev. 25
EN-HU-103 "Human Performance Error Reviews"
EN-OP-115, Rev. 13
EN-HU-103, Human Performance Error Reviews, Rev. 7
EN-OP-116, Infrequently Performed Tests or Evolution, Rev. 10
EN-OP-117, Operations Assessments, Rev. 3
EN-RE-214, Conduct of Reactor Engineering, Rev. 0
FSEM-SUPC-COACH2010, Coaching, Rev. 0
Fundamental Behavior Scorecard, June 2011 – September 2012
PCBT-ADM-IPTE-OVRST, Senior Management Oversight for IPTE, Rev. 0
O-RQ-04-01-145, Team Work Pre-Refueling Outage, Rev. 0
O-RQ-04-01-137, Operations HU Tools and Fundamentals Reinforcement, Rev. 0
1.3.37, Post Trip Reviews, Rev. 29
2.1.1, Startup from Shutdown, Rev. 177
3.M.3-61.5, 'B' Diesel Generator Post Overhaul Testing, Rev. 44

Condition Reports

CR-PNP-2011-02475 Reactor Scram on 5/10/2011 and associated Root Cause Evaluation Report for Reactor Scram on IRM Hi-Hi Flux 07/07/2011, Rev. 2
CR-HQN-2011-500 Significant Event Response Team

Training Materials and Presentations

SOER 10-2 Lessons Learned Presentation, 9/5/2011
Lesson Plan O-RQ-04-01-138 "May 2011 IRM Scram Event Review"
Lesson Plan O-RQ-04-01-137 "Operations HU Tools and Fundamentals Reinforcement"
Lesson Plan O-RO-01-02-08 "Reactor Operational Physics"
Requal Module O-RQ-6-02-80 Scenario #10
LORT Exam Scenario O-RQ-06-02-124
LORT Exam Scenario SES-180
Lesson Plan O-RQ-04-04-72 "Reactor Startup and Criticality Template," Rev. 1
Lesson Plan O-RO-03-02 "Reactor Plant Startup Certification," Rev. 11
Lesson Plan O-RO-01-01-04 "Reactivity Coefficients," Rev. 3
Lesson Plan O-RO-02-07-02 Intermediate Range Monitors
RE Coaching, May 2011 - Jan 2012
Presentation Case Study Plant Restart Following IRM scram
Operator Fundamentals Project document

Self-Assessments

LO-PNPLO-2011-136 Focused Self Assessment Training Effectiveness in Addressing Operator Fundamentals 8/5/2011
LO-PNPLO-2011-0048 Focused Self Assessment PNPS Operator Fundamentals 8/18/2011
LO-PNPLO-2012-00025 Snapshot Assessment/Benchmark On: PNPS 95001 Readiness.