

January 16, 2007

Mr. Gene St. Pierre  
Site Vice President  
FPL Energy Seabrook, LLC  
Seabrook Station  
c/o Mr. James M. Peschel  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: SEABROOK NUCLEAR POWER STATION - PROBLEM IDENTIFICATION  
AND RESOLUTION (PI&R) INSPECTION REPORT NO. 05000443/2006006

Dear Mr. St. Pierre:

On December 7, 2006, the U.S. Nuclear Regulatory Commission (NRC) completed a team inspection at the Seabrook Nuclear Power Station. The enclosed inspection report documents the inspection results, which were discussed on December 7, 2006, with you and members of your staff during an exit meeting.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the inspection team concluded that the Florida Power and Light Energy Seabrook, LLC (FPL) implementation of the corrective action program at Seabrook was consistent and generally effective. The team determined that FPL staff had a low threshold for identifying problems, and issues were prioritized and evaluated commensurate with their safety significance. Corrective actions were typically implemented in a timely manner and addressed the identified causes of the problems. Lessons learned from industry operating experience were reviewed and applied when appropriate, and audits and self-assessments were critical with appropriate actions taken to address identified issues in most cases.

This report documents one NRC-identified finding of very low safety significance (Green). The finding was associated with a failure to promptly identify an adverse condition associated with credited accident analysis assumptions. The station failed to promptly identify the incorrect application of emergency core cooling system (ECCS) termination criteria that had been used for a power uprate "interim design analysis" for an inadvertent safety injection (SI) actuation event. This finding was determined to be a violation of NRC requirements. However, because the violation was of very low safety significance and because it was entered into your corrective action program, the NRC is treating this as a Non-Cited Violation (NCV), in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this NCV, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to

Mr. Gene St. Pierre

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the U.S. Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC, 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC, 20555-0001; and the NRC Resident Inspector at the Seabrook Nuclear Power Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Paul G. Krohn, Chief  
Projects Branch 6  
Division of Reactor Projects

Docket Nos. 50-443  
License Nos. NPF-86

Enclosure: Inspection Report No. 05000443/2006006  
w/Attachment: Supplemental Information

cc w/encl:

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Distribution w/encl: (VIA E-MAIL)

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DATE	01/05/07	01/09/07	01/09/07	01/16/07

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-443

License No: NPF-86

Report No: 05000443/2006006

Licensee: Florida Power & Light Energy Seabrook, LLC (FPL)

Facility: Seabrook Nuclear Power Station

Location: Post Office Box 300  
Seabrook, New Hampshire 03874

Dates: November 27, 2006 through December 7, 2006

Team Leader: B. Bickett, Senior Project Engineer, Division of Reactor Projects (DRP)

Inspectors: S. Shaffer, Resident Inspector, DRP  
A. Rosebrook, Project Engineer, DRP  
G. Ottenberg, Reactor Inspector, Division of Reactor Safety (DRS)  
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Observer: O. Ayegbusi, Reactor Engineer, DRP

Approved by: Paul G. Krohn, Chief  
Projects Branch 6  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000443/2006006; 11/27/2006 - 12/07/2006; Seabrook Station, Unit 1; Biennial Baseline Inspection of the Identification and Resolution of Problems; one violation was identified in the area of problem identification.

This team inspection was performed by four regional inspectors and one resident inspector. One finding of very low safety significance (Green) was identified during this inspection. The finding was classified as a Non-Cited Violation (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be made "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### Identification and Resolution of Problems

The team concluded that the implementation of the corrective action program (CAP) at Seabrook was generally effective. The team determined that Seabrook station had a low threshold for identifying problems and entering them in the corrective action program. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. The station properly evaluated items entered into the corrective action program commensurate with their safety significance. Corrective actions addressed the identified causes and were typically implemented in a timely manner based upon significance. The team observed that the station was generally effective in reviewing and applying operating experience information from industry. Overall, FPL audits and assessments that were reviewed were critical, and appropriate actions were taken to address identified issues. On the basis of interviews conducted during the inspection, the team found station employees at the site expressed the willingness and freedom to enter safety concerns into the CAP.

Inspectors identified one Green NCV during this inspection. The NCV was associated with a failure to promptly identify a condition adverse to quality associated with analysis assumptions credited by the station an inadvertent safety injection (SI) event.

#### A. NRC Identified and Self-Revealing Findings

##### **Cornerstone: Initiating Events**

Green. The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that FPL failed to promptly identify a condition adverse to quality associated with incorrect design assumptions used for the licensing basis in the station's stretch power uprate. Specifically, the station failed to promptly identify a discrepancy between emergency operating procedures (EOPs) implementation and the assumed emergency core cooling system (ECCS) termination criteria that had been used for a power uprate "interim design analysis" for an inadvertent SI actuation event.

Consequently, FPL operated outside the “interim analysis” basis accepted per an NRC Safety Evaluation Report (SER) and challenged conclusions documented in that credited interim design basis. FPL entered this issue into their corrective action program and additional evaluation by the station determined that the issue remained bounded by original plant design basis conclusions and did not meet NRC reportability thresholds during this “interim analysis” time period.

This finding was more than minor because it was associated with the design control attribute of the initiating events cornerstone and impacted the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions. The finding is also similar to the more than minor examples in MC 0612, Appendix E, examples 3.j and 3.k. Inspectors evaluated this finding using Phase 1 of IMC 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” and determined the finding to be of very low safety significance because it; did not affect loss of coolant accident initiators; did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; and did not increase the likelihood of an external event. (Section 4OA2.a(3))

B. Licensee-Identified Violations

None.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA2 Problem Identification and Resolution (PI&R) (Biennial - IP 71152B)

##### .1 Assessment of the Corrective Action Program

###### a. Inspection Scope

The inspection team reviewed the procedures describing FPL's corrective action program (CAP) at Seabrook. FPL identified problems for evaluation and resolution by initiating condition reports (CRs) in their condition reporting system. The team evaluated the methods for assigning and tracking issues to ensure that issues were screened for operability and reportability, prioritized for evaluation and resolution in a timely manner commensurate with their safety significance, and tracked to identify adverse trends and repetitive issues. In addition, the team interviewed plant staff and management to determine their understanding of and involvement with the corrective action program. The condition reports and other documents reviewed, as well as key personnel contacted, are listed in the attachment to this report.

The team reviewed condition reports selected across the seven cornerstones of safety in the NRC's Reactor Oversight Program (ROP) to determine if site personnel properly identified, characterized, and entered problems into the CAP for evaluation and resolution. The team selected items from the maintenance, operations, engineering, emergency preparedness, physical security, radiation safety, and oversight programs to ensure that FPL appropriately addressed problems identified in each functional area. The team selected a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection conducted in November 2004. The team considered risk insights from the NRC's and Seabrook station's risk analyses to focus the sample selection and plant tours on risk-significant systems and components. The corrective action review was expanded to five years for evaluation of the service water system.

The team selected items from various processes used at Seabrook to verify that they were appropriately considered for entry into the CAP. Specifically, the team reviewed a sample of operability determinations, engineering system health reports, and completed surveillance tests. The team also reviewed work orders for selected components to determine if station personnel entered issues identified during the performance of preventive maintenance into the CAP.

The inspection team reviewed CRs to assess whether FPL adequately evaluated and prioritized identified problems. The issues reviewed encompassed the full range of evaluations, including root cause analyses, apparent cause evaluations, and common cause analyses. The review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. For significant conditions adverse to quality, the team reviewed FPL's corrective actions to preclude recurrence. The team observed meetings of the Condition Review Oversight Group (CROG), in which station management reviewed new CRs for prioritization and assignment, and evaluated root cause evaluations and selected apparent cause

evaluations including associated corrective action assignments. The team also reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected problems.

The team reviewed the corrective actions associated with selected CRs to determine whether the actions addressed the identified causes of the problems. The team reviewed CRs for repetitive problems to determine whether previous corrective actions were effective. The team also reviewed FPL timeliness in implementing corrective actions and their effectiveness in precluding recurrence for significant conditions adverse to quality. The team reviewed corrective actions associated with selected NCVs and findings to determine whether the station properly evaluated and resolved these issues.

b. Assessment and Findings

Identification of Issues

Inspectors identified one Green NCV in the area of problem identification. The finding was associated with a failure to promptly identify a condition adverse to quality associated with analysis assumptions used for an inadvertent SI event.

In general, the team considered the identification of problems at Seabrook to be appropriate. The condition reporting process, both computer-based and manual, facilitates the initiation, tracking, and trending of condition reports. Approximately 15,000 condition reports were written each year. There was a low threshold for the identification of issues and, in most cases, problems identified during plant activities were entered into the CAP when appropriate. However, the team found that time-critical operator action issues identified in 2004 and 2005 associated with the analysis of the inadvertent ECCS initiation event were not promptly identified and corrected. As a result, the station operated outside the interim design basis analysis credited per an NRC SER. This finding is discussed in detail in the findings section of this inspection report.

Prioritization and Evaluation of Issues

No findings of significance were identified in the area of prioritization and evaluation of issues.

The team determined that, in general, FPL appropriately prioritized and evaluated issues commensurate with the safety significance of the issue. Condition reports were screened for operability and reportability, categorized by significance (A through E), and assigned to a department for evaluation and resolution. The CROG appropriately considered human performance issues, radiological safety concerns, repetitiveness, and adverse trends in their reviews. The team did identify two weaknesses with respect to properly prioritizing and evaluating condition reports:

- The inspectors identified a sample of condition reports that failed to appropriately classify repetitive performance issues and component failures as repeat conditions. Therefore, these associated issues were not coded as repeat conditions in the CAP

and bypassed the station's ability to trend issues and raise station awareness. Two examples of this were CR 05-01544, which documented six examples of workers working on live wires due to drawing discrepancies; and CR 06-07045, which documented battery charger personnel issues. These issues were not labeled as repeat issues due to specific CAP procedural definitions on what constituted a repetitive issue. CR 06-14761 was previously issued by the station to address this issue and will incorporate the inspection team observations.

- The inspectors identified that the station did not properly evaluate CR 06-12561 for maintenance rule functional failure applicability. The inspectors identified through review of CR 06-12561 that the station had properly evaluated a battery charger failure for operability aspects; however, the station did not evaluate this CR for maintenance rule functional failure aspects. The station issued CR 06-15447 and evaluated the maintenance rule functional failure aspects for this specific battery charger failure.

The inspectors found that the cause analyses reviewed were thorough and appropriately considered extent of condition, generic issues, and previous occurrences. CROG reviews were detailed and ensured that corrective actions addressed the identified causes. For significant conditions adverse to quality, the station identified corrective actions to prevent recurrence.

#### Effectiveness of Corrective Actions

No findings of significance were identified in the area of effectiveness of corrective actions.

The team concluded that identified corrective actions were generally appropriate to resolve identified issues, and were typically completed in a timely manner. However, one weakness was noted with respect to effectiveness of long-term corrective actions:

- During the review of CR 06-09995, inspectors identified that a long-term corrective action associated with the nuclear instrumentation (NI) system had been inappropriately changed. The NI system had a previous maintenance rule a(1) improvement plan, and associated corrective actions, to improve and maintain the system in good condition. One of those long-term corrective actions, intended to maintain the system in good condition, shortened the frequency of detector replacement to every seven years, in accordance with vendor guidance to prevent future detector failures. However, in 2003, a station preventative maintenance (PM) optimization program changed the detector replacement frequency back to 12 years, contrary to the previous expert panel recommendations, and without the station's MR expert panel approval. There was no immediate impact on the NI system due to this PM deferral.

c. Findings

Failure to promptly identify a condition adverse to quality associated with accident analysis assumptions used for an inadvertent ECCS initiation at power event.

Introduction: The inspectors identified a green, non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that, FPL failed to promptly identify a condition adverse to quality associated with a discrepancy between implementation of EOPs and design analysis assumptions used for the licensing basis in the station's stretch power uprate.

Description: During March 2004, FPL Seabrook submitted an application to the NRC containing an amendment request for a stretch power uprate that would increase reactor power by 5.2 percent. During this amendment technical review, the NRC requested additional information regarding selected technical issues, including FPL's analysis of the inadvertent ECCS initiation at-power event. FPL supplied supplemental information by letter SBK-05054, dated February 25, 2005 (ML050610159). NRC accepted the information and approved the stretch power uprate, dated February 28, 2005 (ML050140453), based on the "Interim Design Analysis" and a license condition to be addressed by the station the next refueling outage. This interim analysis described FPL's method to terminate an inadvertent ECCS initiation event which was based on time-critical operator actions to secure high head injection. Seabrook operator actions credited for termination of the inadvertent ECCS initiation event were not consistent with NRC review criteria of the ECCS termination event. Specifically, the NRC accepted criteria for termination of the event is considered no net mass injection into the reactor coolant system (RCS) and the station incorrectly assumed that operator actions to terminate high head injection were the only necessary steps to event termination.

Prior to FPL submitting the "Interim Analysis," Seabrook Station, in December 2004, had previously closed CR 04-09310 that identified a weakness with respect to tracking time critical operator actions and ensuring the station was able to meet all credited operator actions with respect to its design basis. FPL created an engineering evaluation, EE 04-024, "Time Critical Operator Responses," that described all credited operator actions including an inadvertent ECCS initiation event. In this evaluation, station engineering appropriately documented termination criteria that included operator actions for securing injection and establishing letdown for the ECCS initiation at-power event. The station, however, never applied the station engineering information to the power uprate application and failed to verify existing EOPs and training sessions were consistent with this engineering evaluation.

While operating at uprated power during the "Interim Analysis" period in June 2005, operator crew simulator performance testing and response times for inadvertent ECCS at-power events were greater than assumed for operator time critical tasks. There was no condition report issued at this time nor is it evident that the operations staff was aware of or trained on the appropriate termination criteria that had been identified in the engineering evaluation dated December 2004.

During September 2005, the station oversight group identified the potential issue of an incorrect ECCS termination criteria that could place the station outside its licensing basis

while operating under an interim analysis. The station did conclude that the wrong ECCS termination criteria had been used for the "Interim Analysis." However, FPL did not address potential reportability aspects while operating under the "Interim Analysis" nor identify and address ineffective corrective actions associated with the issue.

The inspectors determined that FPL's failure to promptly identify the incorrect ECCS inadvertent design analysis assumption was a performance deficiency that warranted a significance evaluation.

Analysis: The difference between implementation of the EOPs during an inadvertent ECCS initiation at-power event and the "interim analysis" assumptions had the potential to place the plant outside its accepted licensing basis. It was reasonable that FPL should have identified and corrected this deficiency as several opportunities were available prior to and while operating under an "interim design analysis" during the first operating cycle of the stretch power uprate period. Traditional enforcement does not apply since there were no actual safety consequences or potential for impacting the NRC's regulatory function, and the finding was not the result of any willful violation of NRC requirements or FPL's procedures.

The inspectors determined that this finding was more than minor because it was associated with the design control attribute of the Initiating Events cornerstone, and impacted the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions. The finding is also similar to more than minor examples in MC 0612, Appendix E, examples 3.j and 3.k. Specifically, the failure to promptly identify a disconnect between existing EOPs and a design assumption for an inadvertent SI actuation event had the potential to challenge the station's ability to prevent the pressurizer from going water solid and creating a more significant operating event. Additional evaluation by the station determined that the issue remained with design basis conclusions and did not meet NRC reportability thresholds during the "interim analysis" time period. The station updated EOPs and the ECCS inadvertent actuation analysis. Inspectors evaluated this finding using Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined the finding to be of very low safety significance (Green) because it; did not affect loss of coolant accident initiators; did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; and did not increase the likelihood of an external event.

Enforcement: 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, and nonconformances are promptly identified and corrected. Contrary to this, from mid-2004 until late 2005, FPL failed to promptly identify a condition adverse to quality associated with a disconnect between existing EOPs and ECCS termination criteria used for an inadvertent ECCS at-power actuation analysis. Consequently, during the interim design analysis credited per an NRC Safety Evaluation Report, FPL operated outside the credited analysis assumptions and challenged design basis conclusions. Because this issue is of very low safety significance and has been entered into the FPL's corrective action program (CR 06-15363), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy.

**(NCV 05000443/2006006-01, Failure to promptly identify incorrect analysis assumptions used for an inadvertent ECCS initiation at-power event.)**

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The team reviewed a sample of operating experience (OE) issues for applicability to Seabrook station and FPL's associated actions for those issues. Inspectors reviewed various documents to ensure that underlying problems associated with each issue were appropriately considered for resolution in accordance with the corrective action process. The team also reviewed a sample of action plans for maintenance rule a(1) systems, to see how operating experience was being implemented in the maintenance rule program.

b. Assessment and Findings

No findings of significance were identified in the area of operating experience.

The inspectors found that the station appropriately considered operating experience information for applicability, and took corrective and preventive actions as needed. The responsible site personnel screened OE issues from various sources for applicability to Seabrook and wrote CRs for additional reviews and corrective actions as necessary. Operating experience information was integrated into site routine activities, such as training materials and plant procedures.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The team reviewed a sample of corrective action assessment audits, including the most recent audit of the CAP, CAP trend reports, Quality Assurance audits, departmental self-assessments, and assessments conducted by independent organizations. A specific list of documents reviewed is included in the attachment to this report. Inspectors performed these reviews to determine if FPL entered problems identified through these assessments into the CAP, when appropriate, and whether FPL initiated corrective actions to address identified deficiencies. Inspectors evaluated the effectiveness of the audits and assessments by comparing audit and assessment results against self-revealing and NRC-identified findings and observations made during the inspection.

The team also reviewed the 2005 FPL safety conscious work environment (SCWE) survey results, dated September 2005, and the station SCWE corrective action plan. This was a FPL fleet-wide survey followed up by Seabrook station-specific corrective actions.

b. Assessment and Findings

No findings of significance were identified.

The team observed that from the samples reviewed, overall, audits and assessments were critical and appropriate actions were taken to address identified issues. Additionally, the inspection team did not identify any results that were inconsistent with the survey results and the station's SCWE corrective action plan.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

During interviews and discussions with station personnel, the team assessed the SCWE at Seabrook station. Specifically, the inspectors assessed whether workers were willing to enter issues into the corrective action program or raise safety concerns to their management and/or the NRC. The inspectors conducted individual interviews and held discussions with staff and supervisors regarding use of the corrective action program, work processes, and other problem identification and resolution activities. The team reviewed the Seabrook Employee Allegation and Resolution (EAR) program to determine if employees were aware of the program and were using it to raise concerns. The team also reviewed a sample of the EAR files to ensure that issues were entered into the corrective action program.

b. Assessment

No findings of significance were identified.

The team determined that the plant staff was aware of the importance of having a strong SCWE and expressed a willingness to raise safety issues. No one interviewed had experienced retaliation for safety issues raised, or knew of anyone who had failed to raise issues. All persons interviewed had an adequate knowledge of the CAP and EAR. The threshold for entering concerns in the program appeared appropriate and the program administrator willing accepted not only safety concerns but also other work place concerns. Based on these reviews and interviews, the team concluded that there was no evidence of an unacceptable SCWE.

40A6 Meetings, including Exit

Exit Meeting Summary

On December 7, 2006, the team presented the inspection results to Mr. Gene St. Pierre, Seabrook Site Vice President, and other members of the staff, who acknowledged the findings. The inspectors confirmed that no proprietary information reviewed during inspection was retained by the team.

ATTACHMENT: Supplemental Information

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee Personnel:

G. St. Pierre - Site Vice President  
J. Peschel - Regulatory Programs Manager  
M. DeBay - Oversight Manager  
M. Ossing - Engineering Support Manager  
J. Sobotka - Performance Improvement Manager  
A. Chesno - Technical Maintenance Manager  
K. Douglas - Work Process Manager  
R. White - Security Supervisor  
G. Kotkowski - Electrical Design Supervisor - Design Engineering  
V. Robertson - Nuclear Analyst  
S. Hale - Project Manager  
T. Pucko - Engineering Support  
A. Paliulis - Mechanical Engineering  
G. Kilby - Regulatory Compliance  
R. Guthrie - System Engineering  
J. Ball - Maintenance Rule Program Coordinator  
K. Fox - System Engineering  
J. Johnson - System Engineering  
J. Finnigan - Operations  
R. Jamison - Fire Protection Engineer

### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

050000443/2006006-01      NCV    10 CFR 50, Appendix B, "Corrective Actions," Failure to promptly identify incorrect analysis assumptions used for an inadvertent ECCS initiation at-power event.

### LIST OF DOCUMENTS REVIEWED

#### Procedures:

LS 0550.09, Agastat Timing Relay Acceptance Testing and Maintenance Program, Rev. 3  
MA 4.2, Clearance Procedure, Rev. 13  
MA 4.2, Clearance Procedure, Rev. 14  
MA 4.2, Equipment Tagging and Isolation, Rev. 19  
MS 0539.36, Emergency Diesel Generator Engine Injection Nozzle Maintenance, Rev. 0  
NAP-415, Maintenance Rule Program Administration, Rev. 1  
NM 16421, ECR Program, Rev. 10  
OE 3.1, Initiating a Condition Report without using the Condition Reporting System, Rev. 21  
OE 3.6, Condition Reports, Rev. 7

- OE 4.0, Types of Evaluations, Rev. 9
- OE 4.3, Root Cause Analysis, Rev. 14
- OE 4.5, Operability Determination, Rev. 11
- OE 4.8, Apparent Cause Evaluations, Rev. 13
- OE 4.9, Plant Non-conformance/Degraded Condition Evaluation, Rev. 8
- OE 6.4, Trend Analysis Process, Rev. 5
- OE 7.1, Operating Experience Review Program, Rev. 7
- ON 1242.01, Loss of Instrument Air, Rev. 9
- ON 1242.02, Loss of Containment Instrument Air, Rev. 9
- OS1246.02 - Degraded Vital AC Power (plant operating), Rev. 4
- OX 1426.20, Diesel Generator 1A 18 Month Operability and Engineered Safeguards Pump and Valve Response Time Testing Surveillance, Rev. 4
- PEG-45, Maintenance Rule Program Monitoring Activities, Rev. 6
- WM 8.0, Work Control Practices, Rev. 5
- WM 8.4, Work Order Process, Rev. 3

**Condition Reports:** (\* denotes CRs issued during the on-site inspection weeks)

CR04-07795	CR05-00087	CR05-04483	CR05-09686
CR04-09310	CR05-00132	CR05-04725	CR05-09700
CR04-09917	CR05-00158	CR05-04792	CR05-09748
CR04-10542	CR05-00574	CR05-05273	CR05-10285
CR04-10611	CR05-00589	CR05-05301	CR05-10851
CR04-11106	CR05-00597	CR05-05318	CR05-10906
CR04-11141	CR05-00722	CR05-05351	CR05-11050
CR04-11324	CR05-00724	CR05-05401	CR05-11479
CR04-11326	CR05-00989	CR05-05555	CR05-11807
CR04-11763	CR05-01031	CR05-05762	CR05-11978
CR04-11776	CR05-01403	CR05-05838	CR05-11982
CR04-11787	CR05-01544	CR05-05862	CR05-12101
CR04-11791	CR05-01624	CR05-05973	CR05-12137
CR04-11925	CR05-01844	CR05-05999	CR05-12785
CR04-12006	CR05-01846	CR05-06479	CR05-12899
CR04-12033	CR05-01888	CR05-07381	CR05-12908
CR04-12065	CR05-01994	CR05-07392	CR05-12973
CR04-12116	CR05-02066	CR05-07472	CR05-13001
CR04-12159	CR05-02108	CR05-07476	CR05-13014
CR04-12181	CR05-02358	CR05-07664	CR05-13733
CR04-12316	CR05-02506	CR05-07730	CR05-13779
CR04-12368	CR05-02710	CR 05-07984	CR05-13929
CR04-12434	CR05-02859	CR05-08182	CR05-14080
CR04-12445	CR05-02909	CR05-08201	CR05-14432
CR04-12456	CR05-03261	CR05-08205	CR05-14459
CR04-12496	CR05-03265	CR05-08288	CR05-14469
CR04-12501	CR05-03282	CR05-08363	CR05-14508
CR04-12577	CR05-03520	CR05-08673	CR05-14637
CR04-12579	CR05-03727	CR05-08789	CR05-14966
CR04-12579	CR05-03846	CR05-09018	CR05-15334
CR05-00052	CR05-04060	CR05-09325	CR06-00450

CR06-00473	CR06-04413	CR06-08426	CR06-12613
CR06-00484	CR06-04417	CR06-08536	CR06-12632
CR06-01065	CR06-04573	CR06-08801	CR06-12746
CR06-01144	CR06-04756	CR06-09720	CR06-12789
CR06-01573	CR06-04879	CR06-09728	CR06-12873
CR06-02206	CR06-05023	CR06-09995	CR06-12903
CR06-02443	CR06-05945	CR06-10679	CR06-12915
CR06-02520	CR06-06070	CR06-10718	CR06-13949
CR06-02206	CR06-06434	CR06-11049	CR06-14053
CR06-02716	CR06-07045	CR06-11335	CR06-14612
CR06-03025	CR06-07472	CR06-11448	CR06-14614
CR06-03094	CR06-07584	CR06-11514	CR06-14761
CR06-03144	CR06-07614	CR06-12023	CR06-15008*
CR06-03151	CR06-07889	CR06-12071	CR06-15092*
CR06-03159	CR06-08130	CR06-12234	CR06-15321*
CR06-03241	CR06-08137	CR06-12273	CR06-15350*
CR06-03564	CR06-08145	CR06-12511	CR06-15363*
CR06-03975	CR06-08217	CR06-12561	CR06-15447*
CR06-04166	CR06-08331	CR06-12565	

**Operating Experience Reviews:**

- IN 2005-014, Fire Protection Findings on Loss of RCP Seal Cooling
- IN 2005-030, Safe Shutdown Potentially Challenged by Unanalyzed Internal Flooding Events and Inadequate Design
- OE 20432, Feedwater heater experienced excessive extraction steam flow
- OE 21095, Failure of breaker due to over toggle conditions
- OE 21671, Correct use of jacking bolts
- OE 22045, Generation III charging pump shaft failure

**Work Orders:**

0522820      0611329      0533621      0630885      0630886      0630887  
 0630888

**QA Audits:**

- SBK-05-06, CAP Functional Area Audit, October - November 2005
- SBK-06-03, Operations Functional Area Audit, February - March 2006
- SBK-06-04, Physical Security Plan, March - April 2006
- SBK-06-05, Equipment Reliability & Work Management Audit, April - May 2006
- SBK-06-08, Maintenance Functional Area Audit, June - July 2006
- SBK-06-09, Configuration Management Audit, June - July 2006
- SBK-06-10, Emergency Preparedness Functional Area Audit, August - September 2006

**Station Self-Assessments:**

Self-Assessment 05-0123, Security Self-assessment Post Baseline Inspection, May 2005  
 Self-Assessment 06-0035, Corrective Action Effectiveness Review, December 2006  
 Self-Assessment 04-0020, Design Change Implementation (MSE), December 2004  
 Self-Assessment 05-0094, 2005 Mid-Cycle Plant Evaluation, October 2005  
 Self-Assessment 05-0064, Implementation of Response to NRC Bulletin 2005-02, May 2006  
 Self-Assessment 06-0108, Technical Post Comprehensive Corrective Action, July 2006  
 Self-Assessment 05-0041, NOS Processes and Performance, August 2005  
 Self-Assessment 05-0126, OE Program, January 2006  
 Self-Assessment 05-0130, PMT, January 2006  
 Self-Assessment 06-0160, EP Exercise, September 2006  
 Self-Assessment 06-0069, Rework, May 2006  
 Self-Assessment 05-0084, Emergency Response Manual, August 2005  
 Self Assessment 05-0013, Operation Management on Shift Assessment, March 2005  
 Self Assessment 05-0073, NAP-402 - Conduct of Operations Management on Shift, September 2005  
 Self Assessment 05-0121, Assessment of Operator Fundamental Behaviors, March 2006  
 Self Assessment 06-0055, Nuclear System Logs Basis Documentation, August 2006  
 Self Assessment 06-0062, Training Warning Flag-Followup to 2005 Survey, May 2006  
 Self Assessment 06-0139, NAP-201 Human Performance Self Assessment, September 2006

**Non-Cited Violations and Findings Reviewed:**

FIN 05000443/2005002-01	Failure to perform adequate operability for TDEFW pump
FIN 05000443/2005003-01	Untimely corrective maintenance resulting in frozen transmitter line
FIN 05000443/2005003-02	Inadequate procedure resulting in opening switchyard breaker
NCV 05000443/2005003-04	Corrective Action Violation for inadequate controls on oil storage
NCV 05000443/2005004-01	Failure to maintain 4kV breaker maintenance procedure (grease hardening)
NCV 05000443/2005004-02	Failure to comply with TS action statement (offsite/onsite power)
NCV 05000443/2005004-03	Failure to implement equipment tagging/isolation procedure (EDG)
NCV 05000443/2005005-01	Failed to identify Emergency Power sequencer card failure
NCV 05000443/2005011-01	Corrective Action Violation for failure of control room exhaust damper
NCV 05000443/2006002-01	10 CFR 50.59 violation for change to TS basis definition for ASME code piping
NCV 05000443/2006003-02	Corrective action violation for untimely identification/evaluation of hydrostatic barriers
NCV 05000443/2006010-01	Security Sensitive
NCV 05000443/2006013-01	Security Sensitive

**System Health Reports:**

Diesel Generator System - Second Quarter 2006  
 125 VDC System - Second Quarter 2006

Emergency Feedwater System - Second Quarter 2006  
Nuclear Instrumentation System - Second Quarter 2006  
Service Water System - Second Quarter 2006

**Drawings:**

1-NHY-310107 SH 1A, 125 VDC/48 VDC Switchboards, Rev. 43  
1-NHY-310107 SH DA1b, 1-SWG-11B Battery Charger Supply 1-BC-1B, Rev. 5  
1-NHY-310107 SH DB1c, 1-SWG-11A 120 VAC and 120 VDC Auxiliary Busses, Rev. 3  
1-NHY-311869 SH 1, Public Address Communications System, Rev. 42

**Miscellaneous:**

MSE 05-100, Switchyard Station Service Time Delay Relay Set point Tolerance, Rev. 0  
SBK-L-04072, Letter in response to LAR 04-03 - Application for Stretch Power Uprate,  
October 12, 2004  
SBK-L-05054, Letter in response to LAR 04-03 - Application for Stretch Power Uprate,  
February 25, 2005  
EE-04-024, Time Critical Operator Responses, Rev. 0 and Rev. 2  
05-729, 50.59 Screening for 05DCR015 - Inadvertent ECCS Initiation at Power, Rev. 0  
Seabrook SCWE Action Plan, September 2006  
A(1) Improvement Plan - Nuclear Instrumentation System, May 31, 2001  
Common Cause Analysis for CR-05-13779, "Station Component Mispositionings," Rev. 0  
Corrective Action Program Overview Presentation, Nov. 27, 2006  
DBD-ED-05, Seabrook Station 125 Volt DC System Design Basis Document, Rev. 2  
FPL Human Performance Fundamentals and Tools Handbook, August 2005  
Human Error Trending Report, November 28, 2005 through November 28, 2006  
Corrective Action Program Quarterly Trend Report, First Quarter 2006  
Corrective Action Program Quarterly Trend Report, Second Quarter 2006  
List of Open Operator Work-Arounds, October 12, 2006  
Seabrook Station Daily Operating Reports, September 29, 2006  
Seabrook Station, Unit No. 1 - Issuance of Amendment, dated February 28, 2005

**LIST OF ACRONYMS**

ADAMS	Agency Wide Document and Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
CROG	Condition Review Oversight Group
DBD	Design Basis Document
EAR	Employee Allegations Resolution Program
ECCS	Emergency Core Cooling System
EOP	Emergency Operating Procedures
FIN	Finding
FPL	Florida Power & Light Energy Seabrook
IMC	NRC Inspection Manual Chapter

IR	NRC Inspection Report
NCV	Non-Cited Violation
NI	Nuclear Instrumentation System
NRC	Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records
PI&R	Problem Identification & Resolution
PM	Preventative Maintenance
RCS	Reactor Coolant System
ROP	Reactor Oversight Program
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SER	Safety Evaluation Report
SI	Safety Injection
TS	Technical Specifications