



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

October 27, 2010

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville IL 60555

**SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2, NRC BIENNIAL  
PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION  
REPORT 05000456/2010006; 0500457/2010006**

Dear Mr. Pacilio:

On September 17, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Braidwood Station, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on September 17, 2010, with Mr. L. Coyle and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

On the basis of the samples selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected. There were two NRC-identified findings of very low safety significance associated with the failure to evaluate auxiliary feedwater system operability and failure to take timely corrective actions to perform a necessary piping analysis. The findings were determined to be violations of NRC requirements. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as Non-Cited Violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

In addition, several examples of minor problems were identified, including untimely issue report evaluations, and untimely corrective actions.

If you contest the subject or severity of a NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Braidwood Station. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with

M. Pacilio

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the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Braidwood Station. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

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 Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Eric R. Duncan, Chief  
Branch 3  
Division of Reactor Projects

Docket Nos. 50-456; 50-457  
License Nos. NPF-72; NPF-77

Enclosure: Inspection Report No. 05000456/2010006 and 05000457/2010006  
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-456; 50-457  
License Nos: NPF-72; NPF-77

Report Nos: 05000456/2010006 and 05000457/2010006

Licensee: Exelon Generation Company, LLC

Facility: Braidwood Station, Units 1 and 2

Location: Braceville, IL

Dates: August 30, 2010, through September 17, 2010

Team Leader: R. Ng, Project Engineer

Inspectors: J. Benjamin, Senior Resident Inspector, Braidwood  
J. Gilliam, Reactor Inspector  
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Management Agency

Approved by: E. Duncan, Chief  
Branch 3  
Division of Reactor Projects

Enclosure

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## SUMMARY OF FINDINGS

IR 05000456/2010006; 05000457/2010006; 08/30/2010 - 09/17/2010; Braidwood Station, Units 1 and 2; Identification and Resolution of Problems.

This inspection was conducted with region-based inspectors, the NRC Senior Resident Inspector at the Braidwood Station, and the onsite Illinois Emergency Management Agency inspector. 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 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 4, dated December 2006.

### Identification and Resolution of Problems

The inspectors concluded that the licensee's Corrective Action Program (CAP) in general was effective in identifying, evaluating, and correcting issues at the site. The licensee had a low threshold for identifying issues and entering them into the CAP. Overall, the issues were properly prioritized and evaluated based on plant risk and uncertainty. Corrective actions, when specified, were generally implemented in a timely manner, commensurate with their safety significances. The use of operating experience was integrated into daily activities and was found to be effective in preventing industry identified issues from occurring at the site. In addition, the licensee's self-assessments, audits, and effectiveness reviews were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. On the basis of the interviews conducted, site personnel were free to raise safety concerns through the established processes.

There were two Green findings with the associated Non-Cited Violations (NCVs) identified by the team during this inspection. The findings were related to the licensee's failure to perform an operability determination per procedure for a condition adverse to quality and to perform timely corrective actions for a previously identified violation.

### **A. NRC-Identified and Self-Revealed Findings**

#### **Cornerstone: Mitigating Systems, Barrier Integrity**

- Green: The inspectors identified a Green finding and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when licensee personnel failed to adhere to Operability Determination Procedure OP-AA-108-115 after identifying a potential auxiliary feedwater (AFW) system design vulnerability. Specifically, since May 15, 2007, the licensee had questioned the motor-driven AFW system's capability to effectively transfer its water source from the Condensate Storage Tank (CST) to the essential service water system during a hypothetical catastrophic failure of the non-seismic CST. The lack of involvement in bringing this issue to the attention of the operating crew, lack of quality in evaluating the issue, and length of time the questions had been unanswered were not consistent with the Operability Determination process. The licensee entered this issue into their CAP as Issue Report (IR) 1114604. Corrective actions planned included performing an Operability Evaluation and a corrective

action assignment to ensure a rigorous evaluation was performed on the motor-driven AFW pump's motor and breaker.

The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because the issue was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the AFW pump operability was not fully evaluated by the licensee. The finding was of very low safety significance because the issue was not a confirmed loss of operability and did not represent a risk significant issue based on the plant's design backup capability to remove decay heat via the primary feed and bleed method. This finding had a cross-cutting aspect in the area of Human Performance for Decision-Making (H.1(a)). Specifically, the licensee did not make a safety-significant or risk-significant decision using the Operability Evaluation systematic process, especially when faced with uncertain or unexpected plant conditions involving a potential design vulnerability to the plant to ensure safety was maintained. (Section 4OA2.1.b.2.c)

- Green: The inspectors identified a Green finding and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to promptly correct a previously identified NCV regarding the lack of analysis for water hammer loads on the Recycle Holdup Tank (RHUT) inlet piping induced by Residual Heat Removal (RHR) system relief valve discharges. Specifically, the licensee failed to complete the necessary piping analysis to address potential water hammer effects since the issue was initially identified in June 2007 and documented as a NCV in February 2009. The licensee entered this issue into the CAP as IR 1117296 and planned to accelerate the completion schedule for the analysis.

The finding was more than minor because it was associated with the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of maintaining the radiological barrier function of the containment. The finding was of very low safety significance because it did not represent an actual open pathway from containment. This finding has a cross-cutting aspect in the area of Human Performance for Resources (H.2(a)) because the licensee failed to maintain long-term plant safety by completing the necessary piping load calculations in a timely manner. (Section 4OA2.1.b.3.b)

**B. Licensee-Identified Violations**

None.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA2 Problem Identification and Resolution (71152B)

This inspection constitutes one biennial sample of problem identification and resolution as defined by Inspection Procedure 71152. Documents reviewed are listed in the Attachment to this report.

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

##### a. Inspection Scope

The inspectors reviewed the procedures and processes that described Exelon's Corrective Action Program (CAP) at Braidwood Station to ensure, in part, that the station had an adequate program for meeting 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requirements. The inspectors observed and evaluated the effectiveness of CAP meetings such as Station Ownership Committee (SOC) and Management Review Committee (MRC) meetings. Selected licensee personnel were interviewed to determine their understanding and their involvement in the CAP.

The inspectors reviewed selected issue reports (IRs) across all seven cornerstones of safety to determine if problems were being properly identified and entered into the CAP. A risk-informed sample of IRs, originated since the last NRC Biennial Problem Identification and Resolution (PI&R) inspection conducted in October of 2008, was reviewed by the inspectors. The inspectors also reviewed selected issues that were more than 5 years old.

The inspectors assessed the licensee's characterization and evaluation of the issues and examined the assigned corrective actions. This review encompassed the full range of safety significances and evaluation classes such as root cause evaluations, apparent cause evaluations (ACEs), and workgroup evaluations. The inspectors assessed the scope and depth of the licensee's evaluations. For significant conditions adverse to quality, the inspectors evaluated the licensee's corrective actions to prevent recurrence and for lower safety significance issues, the inspectors reviewed the corrective actions to determine if they were implemented in a timely manner commensurate with their safety significances.

The inspectors reviewed the Technical Support Center (TSC) diesel generator in detail since the generator is nonsafety-related equipment that provides backup power to equipment for planned and emergency events. The inspectors also reviewed the maintenance issues associated with the Auxiliary Building ventilation fans as one of the exhaust fans was destroyed in a fire in early 2010 that resulted in a declaration of a Notice of Unusual Event. These reviews were performed to determine whether the licensee was properly monitoring and evaluating the performance of the system through effective implementation of station monitoring programs. The inspectors interviewed the system engineers of the applicable systems, reviewed numerous IRs, and reviewed

evaluations. A 5-year review of the maintenance backlog was undertaken to assess the licensee's efforts to address long-standing maintenance issues.

The inspectors reviewed the licensee's CAP program and independently performed a 5-year review of the human performance trend to determine if issues were tracked to identify adverse trends or repetitive issues.

The inspectors examined the results of the two self-assessments of the CAP completed during the review period. The results of the self-assessments were compared to the self-revealed and NRC-identified findings. The inspectors also reviewed the corrective actions associated with previously identified NCVs and findings to determine whether the station properly evaluated and resolved those issues. The inspectors performed walkdowns to verify the resolution of the issues.

The inspectors also performed a review of the issues identified in the licensee's corporate corrective action program to determine if issues were identified at the corporate level that could affect the Exelon sites, if those issues were prioritized and evaluated according to their safety significances and if corrective actions were assigned and carried out when appropriate.

b. Assessment

(1) Identification of Issues

The inspectors concluded that, in general, the station continued to identify issues at a low threshold by entering them into the CAP. The inspectors determined that the station was appropriately screening issues from both NRC and industry operating experience (OE) at an appropriate level and entering them into the CAP when applicable to the station. The inspectors also noted that deficiencies were identified by external organizations (including the NRC) that had not been previously identified by licensee personnel. Issues were also identified at the corporate level at a low threshold and were entered into the CAP for actions.

The inspectors determined that the station was generally effective at trending low level issues to prevent larger issues from developing. The licensee also used the CAP to document instances where previous corrective actions were ineffective or were inappropriately closed.

Observations:

a. Human Performance Related Trend

The inspectors reviewed the station's trend in human performance within the last 5 years. Overall, the inspectors did not identify any particular trend in Human Performance in any particular department or area, with the exception of the comprehensive improvements recognized in the NRC's "conservative decision-making" safety culture performance aspect documented in NRC Integrated Inspection Report 05000456/457/2010003. The inspectors determined, that in general, the programs that provided multiple barriers to potential human performance errors were



adequate, if followed, and the station's CAP was generally good at identifying methods to enhance performance.

b. Procedural Compliance for the Condensate Polisher Spill Event

On June 30, 2009, the Operations department was performing an evolution to rinse a Condensate Polisher (CP) demineralizer after a resin change. Once the rinse was initiated, the CP low conductivity sump level high annunciator alarmed. The operator verified the sump pump was running and the level in the sump was maintaining a steady level at approximately 3 feet below floor level. The operator discussed the condition with the field supervisor and left the area to perform other duties. About an hour later, the field supervisor went to the room to check on the evolution and discovered that the sump had overflowed and water was spilled outside to the ground. The field supervisor terminated the evolution and the sump level immediately began to drop.

Immediately actions were taken to contain the spread of water released offsite. The licensee later estimated that about 1000 to 3800 gallons of water were released to the storm sewer system. The tritium concentration of the water was sampled to be 270 picocurie per Liter (pCi/L), which was below the Environment Protection Agency's drinking water limit of 20000 pCi/L.

Although not required, the licensee notified members of the Illinois Emergency Management Agency, the Illinois Environment Protection Agency, several Will County Board members, and the Mayor of Braidwood and Godley as well as the NRC about the spill. The licensee performed a quick human performance investigation (QHPI) and ACE and identified several procedural and human performance issues including not requiring continuous monitoring of the evolution when an alarm condition existed. Corrective actions were taken to correct these issues.

The inspectors reviewed the corrective action documents and the annunciator response procedure in effect at the time and determined that the licensee did not perform all the required actions prescribed in the annunciator response procedure. Specifically, after the low conductivity sump high level alarm was actuated, the operator, per procedure, was supposed to stop the evolution if the sump level did not decrease. Based on the QHPI and the ACE, the operator only verified that the level was maintaining steady before attending other duties. Since the level was not decreasing, the evolution should have been stopped, which could have prevented the spill from occurring. This procedure violation was not identified in the licensee's investigations. Because a regulatory limit was not exceeded for offsite release, this failure to comply with procedures constitutes a violation of minor significance that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

(2) Prioritization and Evaluation of Issues

The inspectors concluded that the station was generally effective at prioritizing and evaluating issues commensurate with the safety significance of the identified problem. The inspectors determined that the SOC and MRC CAP review meetings were generally thorough and maintained a high standard for approving action.

The inspectors determined that issues were tracked to identify adverse trends and actions assigned to correct repetitive issues when applicable. The inspectors reviewed selected issues in the maintenance backlog and the CAP. The inspectors determined that the licensee was generally effective at evaluating equipment functionality requirements after a degraded or non-conforming issue was identified and prioritized the corrective action commensurate with its safety significance. The inspectors also determined that issues in the corporate CAP were prioritized and evaluated per the established CAP process.

The inspectors noted that several issues related to the sequential unit reactor trip in August 2010 had problem identification and resolution implications. However, the inspectors did not review those issues because the licensee had not completed the evaluations and a NRC special inspection was ongoing at the time of this inspection.

Based on the samples selected for this inspection, the inspectors identified several issues that could be evaluated in a more timely manner.

Observation:

a. Technical Support Center Diesel Generator

In April of 2010, Nuclear Oversight (NOS) identified that no evaluation was completed when the Technical Support Center (TSC) diesel generator failed its loaded run surveillance test (0BwOS-IS-Q1) in January 2010. Specifically, the diesel generator did not meet its acceptance criterion for the motor starting battery minimum voltage. An engineering evaluation was performed to investigate the origin of the minimum voltage acceptance criterion and evaluate if failing to meet the criterion would actually cause the diesel generator not to start when required. The licensee concluded that the criterion in the procedure was enveloped by industry and vendor standards, and as such, could be left as-is. However, the specific bases of the acceptance criterion were not known. Since failing to meet the battery acceptance criterion would indicate potential degradation, a step was added to the procedure for an IR to be initiated if the voltage was too low so that engineering could evaluate the functional level of the diesel generator.

The inspectors performed an historical search into this issue and found that the diesel generator had failed its surveillance multiple times in the past 7 years for not meeting the minimum battery voltage acceptance criterion. The inspectors determined that the identification of these surveillance failures was not promptly entered into the CAP. Also, the evaluation of this issue identified by NOS did not contain the appropriate technical rigor of a typical engineering evaluation in that it did not thoroughly probe into the engineering design bases of the battery and did not illustrate an understanding of why the acceptance criterion was the value that was being used in the surveillance procedure. Since the TSC diesel generator was able to start and load onto the bus when it failed the surveillance, the diesel generator was considered functional.

The inspectors also discovered that there were no supporting design basis documents for the TSC diesel generator itself. The function of the diesel was to provide an uninterrupted back-up power supply for the 033W3 bus, which supplied the TSC and other nonsafety-related but regulatory required loads, under loss of normal power

conditions. For example, the surveillance procedure provided a run-time criterion of 2 hours for the diesel generator. However, there was no supporting documentation that provided the basis for a 2 hour run-time in a loss of power scenario. The inadequate documentation of the basis for the acceptance criterion and the design of the diesel generators called into question the long-term reliability of the diesel generator to perform its intended function. After NRC questions from this inspection, IR 1112604 was written to have engineering review the classification and design documentation for the TSC diesel generator. This issue was not a performance deficiency because there were no requirements to document the bases for the TSC diesel generator and the diesel generator was capable to start and provide power to the 033W3 bus.

b. Emergency Diesel Generator Temperature Switches

Since January of 2009, there were multiple IRs written by engineering for the Emergency Diesel Generator Lube Oil Heater and Jacket Water Heater temperature switches not maintaining the desired temperature bands or functioning as intended. The purpose of these temperature switches was to maintain a temperature band of 120 to 130 degrees Fahrenheit for the oil in the lube oil system and water in the jacket water system of the emergency diesel generators. This maintained the emergency diesel generators in a condition that allows them to start within the Technical Specification (TS) required time and perform their intended safety function of providing power in case of an emergency. These switches normally operated in automatic and are not needed when the diesel generator is running.

All these issues occurred after seven of the eight switches were replaced by a new model switch due to the old model becoming obsolete. While the issues were promptly identified, the CAP process of evaluating the issue and implementing effective corrective actions was not completed in a timely manner. Even though the issues were first identified in early 2009, Engineering was still evaluating the cause of the issues. In the meantime, the switches were being operated in manual mode, and controlled by operators in the field when they were completing their daily rounds. The licensee started these manual compensatory actions in September of 2009. An IR was written in June of 2010 to evaluate these manual compensatory actions as operator burdens.

The inspectors determined that the evaluations and corrective actions for these conditions adverse to quality were untimely and the licensee was not appropriately addressing the significance of these problems. The inspectors determined that the diesel generators could still perform their intended functions since the temperatures of the lube oil and jacket water were being maintained within the Updated Final Safety Analysis Report (UFSAR) limits. Therefore this issue constituted a minor violation of NRC requirements that is not subject to enforcement action in accordance with the NRC's Enforcement Policy. The licensee acknowledged that the evaluation and corrective actions should have been completed in a more timely manner for this risk-significant system.

c. Failure to Follow the Operability Determination Process

Introduction: The inspectors identified a Green finding and an associated Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when licensee personnel failed to follow the station's Operability

Determination procedure after identifying a potential Auxiliary Feedwater (AFW) system design vulnerability. Specifically, since May 15, 2007, the licensee had questioned the motor-driven AFW pump's capability to effectively swap its water source from the condensate storage tank (CST) to the essential service water system during a hypothetical catastrophic failure of the non-seismic CST. The lack of involvement in bringing this issue to the attention of the operating crew, lack of quality in evaluating the issue, and length of time the questions had been unanswered were not consistent with the standards imposed in the station's Operability Determination process. The licensee entered this issue into their corrective action program (IR 1114604).

Description: On May 15, 2007, the licensee identified and documented a concern regarding the Unit 1 and Unit 2 AFW system response time during a design basis loss of offsite power coupled with a hypothetical loss of the CST supply (IR 629903). During this scenario, the Unit 1 and Unit 2 motor-driven AFW pumps received an auto start signal but tripped within 2.5 seconds on low suction pressure provided the CST had failed. The pumps would start again after their breakers reset and supply water to their respective steam generators. The IR appropriately questioned if this delay in AFW response was accounted for in the licensing basis. Assignment #2 from this IR evaluated the issue and concluded that there was no deficient condition and the AFW pumps would deliver water to the steam generators within the period required by the analysis.

Assignment #3, from IR 629903, was initiated to evaluate the need to revise the AFW system description in Section 10.4.9 of the UFSAR to address the start of the AFW pump with the CST unavailable and to initiate additional actions if needed. The inspectors determined that this assignment was delayed multiple times from the original due date of August 30, 2007, until the final completion date of July 23, 2010. During this time, an additional concern was identified by the Exelon staff. The new concern was that the AFW motor might cycle on and off as many as four times based on the breaker's 3-second closing spring recharge time. Although the inspectors could not determine the precise date that the new concern was identified, after reviewing the IR's "in progress notes" and talking with the licensee staff and managers, it was clear that this concern was recognized and discussed prior to April 6, 2010. This conclusion was based on an April 6, 2010, vendor response letter provided to Exelon extending an offer to study the effects of four successive starts of the AFW motor based on the recognized possibility that the motor would either trip on over current during one of the successive starts or could overheat due to starting four times in succession. This information was not provided to Operations management.

On July 7, 2010, the licensee initiated IR 1088364 that documented the concern for four successive trips of the motor-driven AFW pump during presumed CST failure due to a tornado generated missile. The IR stated that the repeated starts and trips were discussed with a corporate rotating equipment specialist who believed that the four starts could damage the motor windings through overheating. This individual also noted that he could not predict with certainty how the motor or breaker would respond and that vendor support would be needed for an analysis. Furthermore, the individual noted that the short time between trip and restart could result on excessive inrush currents that could cause a trip on overload. This IR documented the actions that the licensee had undertaken prior to the April 6, 2010, vendor response letter.

Exelon Procedure OP-AA-108-115, "Operability Determinations (CM-1)", Revision 9, was a 10 CFR 50, Appendix B, quality procedure. Per that procedure, operability should be determined immediately upon discovery that a structure, system, or component (SSC), subject to TS, was in a degraded or nonconforming condition. This procedure also stated that a prompt determination of SSC operability as a follow up to the immediate determination of SSC operability made by Operations management was warranted when additional information, such as a supporting analysis, was needed to confirm the immediate operability determination.

The IR 1088364 provided an immediate operability assessment for the AFW pump motor based on the vendor's engineering judgment. However, it did not provide an immediate operability assessment for the motor-driven AFW pump breaker. For the motor, the IR stated that continued operability was supported based on the vendor's preliminary evaluation that the motor would continue to operate and that any motor degradation would result in minor shortened motor life, but not an immediate failure.

The inspectors reviewed the history of the issue and discussed the issue with both Braidwood management and the engineering staff and identified an inadequate and untimely evaluation. Specifically, the evaluation was untimely from the perspective that from when the original issue was identified to the time provided to obtain a detailed analysis was over 3 years. The evaluation was also inadequate from the perspective that the operability evaluation for the motor was based on a vendor's opinion and not documented engineering judgment that could be reviewed by the inspectors or that was understood by interviewed Braidwood staff. With respect to the breaker, the licensee simply had not assessed and documented its operability.

The inspectors identified that the licensee had not considered other credible scenarios in which offsite power would not be available and a CST failure could occur (i.e. a design basis earthquake), did not provide an explanation for why the motor-driven AFW pump versus the diesel-driven AFW pump was considered the credible single failure, and did not evaluate the potential risk to the plant in the case that the equipment was discovered to be inoperable.

Analysis: The inspectors concluded that the licensee's failure to adequately implement their operability determination process was a performance deficiency. The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening", because, the issue was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the AFW pump operability was not fully evaluated by the licensee. The issue was determined to be Green because the issue was not a confirmed loss of operability and did not represent a risk-significant issue based on the plant's design backup capability to remove decay heat via the primary feed and bleed method.

This finding has a cross-cutting aspect in the area of Human Performance for Decision-Making. Specifically, the licensee did not make a safety-significant or risk-significant decision using the Operability Evaluation systematic process, especially when faced with uncertain or unexpected plant conditions involving a potential design vulnerability to the plant to ensure safety was maintained (H.1(a)).

Enforcement: 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to this, the inspectors identified three examples of a violation of this requirement for the licensee's failure to follow Procedure OP-AA-108-115, "Operability Determinations (CM-1)," Revision 9:

- Step 4.1.2 requires that if the originator or supervisor identified any potential operability or reportability issues, then the originator or supervisor shall personally contact Operations management of the affected facility/unit and discuss the issue. However, from April 6, 2010, (or prior) to July 7, 2010, Operations management was not notified of the issue while an engineering review was being conducted to evaluate system operability.
- Step 4.1.6 requires that operability be determined immediately from a detailed examination of the deficiency upon discovery that a SSC subject to TS is in a degraded or nonconforming condition. In most cases the decision can be made immediately and appropriately documented on the IR. In other cases, the decision shall be made within 24 hours even though complete information may not be available. However, IR 1088364 did not provide an immediate operability determination with the documented concern for how the breaker would respond, as specified by Step 4.1.6. Specifically, the IR documented that a corporate rotating equipment specialist could not predict with certainty how the motor or breaker would respond to the hypothetical four successive starts. The IR further documented that based on preliminary vendor judgment, that the motor would continue to operate and that any motor degradation would result in minor shortened motor life.
- Step 4.1.9 states that a prompt determination of SSC operability is a follow up to the immediate determination of SSC operability made by Operations management. The prompt determination is warranted when additional information, such as a supporting analysis, is needed to confirm the immediate determination. If there is a reasonable expectation that the SSC is operable, but a more rigorous evaluation is deemed warranted, then request the appropriate work group to initiate an action tracking item (IR action) to prepare an operability evaluation using the guidance provided in this procedure. From May 15, 2007, to September 24, 2010, the licensee recognized that an additional, supplemental analysis was needed to confirm operability; however, the licensee did not perform an Operability Evaluation using the guidance provided in this procedure when faced with a question that could affect the motor-driven AFW pump's licensed based function during a hypothetical CST failure.

The licensee entered this issue into their CAP as IR 1114604. Corrective actions included an assignment to perform an Operability Evaluation on both the AFW pump and breaker, and an assignment to ensure a detailed analysis was performed on the breaker, as was the case for the AFW motor.

Because this violation was of very low safety significance, was not repetitive or willful, and it was entered into the licensee's corrective action program, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy.

**(NCV 05000456/2010006-01; 05000457/2010006-01: Failure to Follow the Operability Determination Procedure)**

(3) Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were generally timely and adequately implemented, commensurate with their safety significances. Problems identified using root or apparent cause methodologies were resolved in accordance with program and NRC requirements. The inspectors determined that the corporate CAP was generally effective in driving corrective actions to completion. When appropriate, corrective actions were assigned to the site for implementation.

The inspectors also determined that the station's corrective actions designed to prevent recurrence (CAPRs) were generally comprehensive, thorough, and timely. Although some of the CAPRs were over 500 days old, the inspectors determined that the corrective actions were considered timely as they required an outage for the implementation.

The inspectors also concluded that sampled corrective action assignments for selected NRC documented violations were generally effective and timely. However, the inspectors identified a number of untimely corrective actions as described below.

Observations:

a. Untimely Corrective Actions for Auxiliary Building Ventilation Exhaust Fan Failure

On May 10, 2007, an IR was written because the Auxiliary Building Ventilation "A" Exhaust Fan (0VA02CA) had elevated vibration indicating degraded bearings. The fan was classified as a non-preferred machine and a work order was created to repair the fan. On July 3, 2008, before the fan could be repaired, it was run to failure and quarantined. The failure was considered by the licensee to be a Maintenance Rule Functional Failure and an Equipment ACE was generated. The licensee made the decision to investigate, disassemble, send out for repair, and reassemble the fan in the same work order with an initial due date of August 4, 2008. The work order due date was later moved to December 1, 2008 because the original due date was close to an outage and there were resource issues. The date was moved a total of six more times because of resource issues and had a due date of November 29, 2010, at the end of this inspection, which was 29 months after the failure.

Since the work order had not been completed, the licensee was in a situation where one of the safety-related exhaust fans had been inoperable for over 2 years and the mode of failure still had not been determined. Since the mode of failure had not been determined, the licensee could not complete the Equipment ACE, the extent of condition, or implement corrective actions.

On January 9, 2010, approximately 19 months after the "A" Exhaust Fan failed, the "C" Supply Fan also failed. The failure also caused the station to declare a Notice of Unusual Event for a small fire from the inboard bearing of the "C" Supply Fan. The licensee was required to have two of four trains available to complete TS surveillances.

At the end of this inspection, the licensee had two trains available. However, the "B" Exhaust Fan was degraded because of high vibrations.

The untimely repair of the safety-related Auxiliary Building "A" Exhaust Fan was considered to be a performance deficiency. Although these fans were required to complete TS surveillances, they were not required for train operability. Since the licensee met the TS requirements, this performance deficiency was considered minor.

b. Untimely Corrective Action for Lack of Water Hammer Analysis on the Recycle Holdup Tank

Introduction: The inspections identified a Green finding and associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," when the licensee failed to promptly correct a previously identified NCV regarding the lack of analysis for water hammer loads on the Recycle Holdup Tank (RHUT) inlet piping induced by Residual Heat Removal (RHR) system relief valve discharges.

Description: In February 2009, NCV 05000456/457/2008005-05 was issued when the licensee failed to evaluate and maintain the required water volume necessary to quench the RHR system relief valve discharges into the RHUT and incorporate appropriate minimum RHUT level requirements into the RHUT level control procedure and to evaluate the effect of dynamic water hammer loads on inlet piping from relief valve discharges to the RHUT. This issue was initially identified by the NRC in June 2007 (See NRC Integrated Inspection Report 05000456/457/2008005). The licensee entered this issue into their CAP as IRs 649581 and 677075. As part of the corrective actions, the licensee instituted administrative controls to provide an adequate quench volume for the RHUT and initiated an action to perform an analysis to investigate the magnitude of the potential water hammer loads on the inlet piping.

The action to obtain a proposal to perform the piping analysis was originally assigned a due date of July 31, 2008. The proposal was obtained and the action was closed. The actual piping analysis and a detailed evaluation for over-pressurization of the RHUT were tracked under another IR Assignment, IR 677075-09, to revise the accident analysis in the UFSAR for a ruptured RHUT with an initial due date of July 31, 2009. This assignment was documented as a corrective action for a condition adverse to quality.

On February 9, 2009, the NRC issued an NCV related to this issue and the licensee wrote IR 883985 to track the actions to correct the NRC identified violation. The action was subsequently closed to IR 677075-09.

On July 30, 2009, the licensee extended the due date for this corrective action item to December 2009 due to coordination required from Byron Station and vendor support. In December 2009, the action was further extended to June 2010 and was downgraded from a corrective action to an action tracking item, which tracked minor problems that did not represent conditions adverse to quality. The reasons for the delay, as documented in the CAP, were emergent engineering priorities and corporate engineering staff re-organization.



In June 2010, the due date was again extended to September 2010 to perform a more detailed analysis due to a possible need for a system modification. At the end of this inspection, the action was scheduled to be completed in June of 2011. The licensee planned to accelerate the completion schedule of the analysis.

Analysis: The inspectors determined that the licensee's failure to timely perform the necessary piping analysis to investigate the magnitude of the potential water hammer loads on the inlet piping was a performance deficiency that warranted a significance determination. The inspectors determined the finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because the finding affected the Barrier Integrity Cornerstone objective for maintaining the Radiological Barrier Function of the Containment. The finding was also associated with the design control attribute of the Barrier Integrity Cornerstone. Specifically, the licensee's existing design and piping configuration did not address water hammer effects when the RHR relief valves were lined up to discharge to the RHUT that could rupture the piping and potentially affect the offsite dose consequences.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, "Phase 1 — Initial Screening and Characterizations of Findings." The inspectors determined in Tables 2 and 4a of the Attachment that the failure to analyze the RHUT inlet piping loads degraded the Radiological Barrier Function of the containment, but did not represent an actual open pathway from containment. Therefore, the finding was screened as having very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance for Resources (H.2(a)) because the licensee failed to maintain long-term plant safety by completing the necessary piping load calculations in a timely manner.

Enforcement: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires in part that measures shall be established to ensure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, as of September 17, 2010, the licensee failed to promptly correct a condition adverse to quality identified in February 2009. Specifically, the licensee failed to complete the piping analysis to address potential water hammer effects when the RHR relief valves were lined up to discharge to the RHUT. Because this violation was of very low safety significance and because it was entered into the licensee's CAP as IR 1117296, this violation is being treated as a NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000456/2010006-02; 05000457/2010006-02: Untimely Corrective Action for Lack of Water Hammer Analysis on the Recycle Holdup Tank)**

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's OE program. Specifically, the inspectors reviewed implementing OE program procedures and completed evaluations of OE issues and events. The inspectors also attended CAP meetings to observe the use of OE information. The inspectors' review was to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and

conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were effective and timely implemented.

b. Assessment

The inspectors concluded that the station appropriately considered industry and NRC OE information for applicability, and used the information for corrective and preventative actions to identify and prevent similar issues. The inspectors assessed that OE was appropriately applied and lessons learned were communicated and incorporated into plant operations. In particular, OE information was discussed during Plan of the Day meetings and also incorporated into the work management process as part of the pre-job briefs. The inspectors also observed that Exelon fleet internal OE and industry OE were discussed by licensee staff to support review activities and CAP investigations.

Findings

No findings of significance were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed selected focused area self-assessments, check-in self-assessments, root cause effectiveness reviews, and NOS audits. The inspectors evaluated whether these audits and self-assessments were being effectively managed, were adequately covering the subject areas, and were properly capturing identified issues in the CAP. In addition, the inspectors also interviewed licensee personnel regarding the implementation of the audit and self-assessment programs.

b. Assessment

The inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold level. The inspectors concluded that these audits and self-assessments were completed by personnel knowledgeable in the subject area. In many cases, these self-assessments and audits had identified numerous issues that were not previously recognized by the station. For example, NOS has identified that Operations had missed the TS Limiting Condition for Operation (LCO) entry for containment isolation valve 1SI8835 and 1SI8809A from a loss of power. Although power was restored before the LCO time ran out, Operations did not recognize the missed entry until the NOS review.

Findings

No findings of significance were identified.

#### .4 Assessment of Safety Conscious Work Environment

##### a. Inspection Scope

The inspectors interviewed selected members of the Braidwood Station personnel to determine if there were any impediments to a Safety Conscious Work Environment (SCWE). In addition, the inspectors discussed the implementation of the Employee Concerns Program (ECP) with the ECP coordinators, and reviewed 2008 - 2010 ECP activities to identify any emergent issues or potential trends. In addition, the inspectors assessed the licensee's SCWE through the reviews of the facility's ECP implementing procedures, discussions with coordinators of the ECP, interviews with personnel from various departments, and reviews of IRs. The licensee's programs to publicize the CAP and ECP programs were also reviewed.

##### b. Assessment

The inspectors determined that the conditions at the Braidwood Station were conducive to identifying issues. Licensee staff was aware of and generally familiar with the CAP and other station processes, including the ECP, through which concerns could be raised. A number of craft personnel indicated that they did not personally enter issues into the CAP. Instead, their preferred method was to notify supervisors of the issues and had the supervisors enter the issues into the CAP. The inspectors determined that this observation was not a significant concern since the personnel interviewed stated that they were willing to voice issues to their management and/or ask another employee to write the IR for them. Note that this issue had been identified in previous PI&R inspections and the licensee had not made significant progress in this area.

All employees interviewed noted that any safety issue could be freely communicated to supervision and that safety significance issues were being corrected. However, some employees interviewed stated that minor issues were not being addressed as many of those issues were closed to trending or closed to work orders that were not scheduled to be completed for extended periods. Several employees mentioned that they would like better feedback after writing IRs so they could understand the reasons for those delays. The inspectors determined that although no related regulatory requirements exist, the station could strengthen this area of the CAP by ensuring all station personnel have an adequate working knowledge of entering issues into the CAP and receive feedback for issues raised.

In addition, a review of the types of issues in the ECP indicated that site personnel were appropriately using the CAP and ECP to identify issues and the issues in the ECP were being addressed accordingly.

##### Findings

No findings of significance were identified.

4OA6 Management Meetings

Exit Meeting Summary

On September 17, 2010, the inspectors presented the inspection results to Mr. L. Coyle, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee

L. Coyle, Plant Manager  
M. Marchionda-Palmer, Operations Director  
M. Smith, Engineering Director  
R. Gaston, Regulatory Assurance Manager  
P. Boyle, Maintenance Director  
P. Daly, Radiation Protection Manager  
B. Schipiour, Work Management Director  
R. Radanovich, Nuclear Oversight  
T. Schuster, Chemistry Manager  
E. Johnston, Site Correction Action Program Manager

#### NRC

E. Duncan, Branch Chief

### LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

#### Opened

05000456/2010006-01 05000457/2010006-01	NCV	Failure to Follow the Operability Determination Procedure
05000456/2010006-02 05000457/2010006-02	NCV	Untimely Corrective Action for Lack of Water Hammer Analysis on the Recycle Holdup Tank

#### Closed

05000456/2010006-01 05000457/2010006-01	NCV	Failure to Follow the Operability Determination Procedure
05000456/2010006-02 05000457/2010006-02	NCV	Untimely Corrective Action for Lack of Water Hammer Analysis on the Recycle Holdup Tank

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### Issue Reports

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
IR 28260	A2000-02126 Degraded Voltage on Instrument Bus 214	May 4, 2000
IR 114419	Weekly Circ Water Blowdown Composite Sample Misplaced	July 1, 2002
IR 116143	Additional Discrepancies Noted in Liquid Release Spreadsheet	July 17, 2002
IR 119714	1PA51J Inoperable – Affecting CETC's and RVLIS Unplanned LCO	August 18, 2002
IR 144454	Substantial Area of Boric Acid Found During Walkdown	February 12, 2003
IR 153139	Unable to Identify Valve Installed in Plant	April 9, 2003
IR 154057	Potential Adverse Condition with Underground Cables	April 15, 2003
IR 166861	Inability to Lower 1A D/G Load During the Performance of BwOP DG-12	July 9, 2003
IR 174026	0BwOS IS-Q1 Did not Meet Acceptance Criteria	September 2, 2003
IR 190118	Repeat Maint – 2PR11J Rad Monitor Failed After filter change	December 11, 2003
IR 212605	CO2 Tank Level Decreasing 15 to 20 % Per Month	April 2, 2004
IR 249040	0WX705C Took > 10 Minutes to Close - Needs Repair	September 1, 2004
IR 261003	Spurious Halon FP Alarm on 1h13-U704	October 6, 2004
IR 276095	Potential Adverse Trend for Loss of Sample Flow on 1PR08J	November 23, 2004
IR 282660	AH-C-1B Insulation Problem	December 15, 2004
IR 292295	Actions Required from NRC Information Notice 2004-21	January 13, 2005
IR 338480	ASME Pressure Test Frequency Not Met	May 25, 2005
IR 347451	Monitor Item 101 Not Used as Intended	June 24, 2005
IR 366352	SSDPC Inspection Press Test SX Pipe Follow-up to IR 364793	August 24, 2005
IR 426852	0FP056B Seat/ Stem May Have Separated - Need work Request	November 22, 2005
IR 442540	Leak at Circ Water Blowdown Vacuum Breaker	January 16, 2006
IR 469323	Failure of U-2 Train A CETCs	March 22, 2006

IR 480489	Boric Acid Accumulation Bottom of PZR	April 19, 2006
IR 490486	Fuel Handling Predefines Need Updated	May 16, 2006
IR 514147	Operating Abnormal Procedures Need Upgrading	July 27, 2006
IR 518546	Training OPEX Review - Operator Response Time Questioned	August 10, 2006
IR 563954	2A SX Pump ASME Requirements Outside Acceptance	November 30, 2006
IR 574048	0OR02J Went Into High Alarm During 0B GDT Release	December 31, 2006
IR 578666	MW-13 Sample Results Contain Elevated Tritium	November 10, 2006
IR 578898	Evaluate Use of Excel Calculation Method for RCS Leakrate	January 13, 2007
IR 583152	50.59 Evaluation Should Have Been Performed	October 17, 2006
IR 586879	Line 1SX37AA Doesn't Meet Wall Thickness Screening Criteria	February 1, 2007
IR 608416	Re-occurring Issues with CW Vacuum Breakers	March 24, 2007
IR 619720	Station 5-year Exposure Reduction Plan Enhancement	April 20, 2007
IR 624518	OPXR Review Identified Issue with Operator EOP Response	May 2, 2007
IR 625625	Tritium Results from Sea Van #4 Leakage	May 4, 2007
IR 627988	0VA02CA, 0A VA Exhaust Fan, Vibration Indicating Degraded BRG	May 10, 2007
IR 629903	Documenting ½ A AF Pumps Response Time in Loop	May 15, 2007
IR 632816	West Lagoon @ TR Splashing to Surrounding Gravel Due to Wind	May 23, 2007
IR 649581	Potential Vulnerability with RH Suction Relief Disch to HUT	July 12, 2007
IR 650477	Replace DG Temperature Switches with New Unit	July 16, 2007
IR 660065	NOS ID RP ANSI Qual Forms Aren't Being Maintained in Department	August 13, 2007
IR 660700	NOS ID SAC Has Not Reviewed the Dose Equalization per T&RM	August 15, 2007
IR 660807	NOS ID – Braidwood RP Is Not Implementing Req. Interim CAs	August 15, 2007
IR 660819	NOS ID RP DTSQA Database Not Kept Up to Date	August 15, 2007
IR 660834	NOS ID'D Catch Cponainer Administration Deficiencies	August 15, 2007
IR 660891	NOS ID - RP Trip Tickets Not Utilized Per RP-AA-460-1003	August 15, 2007
IR 661030	NOS IDS Procedure Revisions With No Plant Manager Authorization	August 15, 2007
IR 661055	NOS ID Approve Source Not Used for Response Checks of SAM	August 15, 2007
IR 661058	NOS IDS RP Predefines Not Updated to Reflect Current Procedure	August 15, 2007

IR 661059	NOS IDS Radioactive Source Not Labeled with the Rad Symbol	August 15, 2007
IR 661062	NOS IDS Repeat Deficiencies RAM Storage Areas	August 15, 2007
IR 661209	NOS IDS Three RP Areas Requiring Management Attention (ARMA)	August 16, 2007
IR 664692	OPS Needs to Create Procedure for Time Critical Actions	August 26, 2007
IR 677075	Recycle Hold Up Tank Level Administrative Controls	September 28, 2007
IR 692435	Yokogawa Test Recorders Are Not Being Time Checked	October 31, 2007
IR 705696	Create ATI for Visual Exam of 0SX165A/B Valves and Piping	November 30, 2007
IR 725513	Preconditioning Questions for 2B AF Pump Monthly Run	January 22, 2008
IR 726658	Transient Combustible Issues Across the Fleet	January 25, 2008
IR 767223	Procedure Enhancements for 0BWOA ENV-4	April 24, 2008
IR 770446	Sampling of Shower Tanks for CAF Not Sampled Per TRM App. L	May 1, 2008
IR 773174	PBI 11234 Section of Block Wall Missing Around Conduit	May 8, 2008
IR 773251	3/4" Hole in Fire Rated Block Wall	May 8, 2008
IR 782567	VA Fans in Degraded Status	June 3, 2008
IR 783866	Unit Common VA Fan Issues Identified	June 6, 2008
IR 785949	Radioactive Shipment from Vendor Was Not Recognized as RAD	June 12, 2008
IR 798341	1B EDG #2 Air Dryer High Temp When Running	July 19, 2008
IR 804319	OSC Controller Issue Affecting Min Staffing on 7/23 PI Drill	August 6, 2008
IR 804575	Security Negligent Weapon Discharge (Level 2)	August 6, 2008
IR 805285	DEP Failure During OPS Crew Evaluated Scenario	August 8, 2008
IR 806292	Response to ERO Call In Drill on 8/10/08 Less Than Desired	August 12, 2008
IR 808196	TSC Deficiencies and Enhancements from 7/23 PI Drill	August 19, 2008
IR 810023	NOS ID'D Finding With RP Corrective Active	August 22, 2008
IR 814187	Water Leak from 2B MSIV Room Ceiling	September 4, 2008
IR 815967	Engineering Review Requested for SX System	September 10, 2008
IR 818067	Unit 1 CAF Tank Over-Flowed	September 15, 2008
IR 819415	Regulatory Guide 1.97 Discrepancy with 1PI-405	September 18, 2008
IR 819862	LCO 3.5.3. Bases Improvement Recommendation	September 19, 2008
IR 822036	PWR Half Scram	September 23, 2008
IR 822481	NOS IDS Non Conservative Prompt Operability of 2A SX Pump	September 25, 2008
IR 825789	Inadequate MRule (A)(4) Risk Assessments	October 2, 2008



IR 826783	Elevated U-1 SI PP Discharge Header Pressure	October 5, 2008
IR 827406	Entry Into 2BwOA Sec-1 for 2B MFW Pump Trip - 2FW01PB-A	October 6, 2008
IR 828673	Environmental Release HIT Team Actions	October 9, 2008
IR 829316	NRC to Issue Green Finding w/NCV for DOST Scaffold Issue	October 10, 2008
IR 829329	Review of Recently Published Rule Making 10CFR50.55A	October 10, 2008
IR 829337	Fleet-wide Adverse Trend in Oil / Chemical Spills	October 10, 2008
IR 829955	Establishing Time Critical Actions Procedure & Database	October 12, 2008
IR 829955	Establishing Time Critical Actions Procedure and Data Base	October 12, 2008
IR 830723	SW Pipe Leaks Due to Inadequate Chem Treatment	October 14, 2008
IR 831511	B2R14 LL - Corporate Issues Related to Eddy Current Testing	October 15, 2008
IR 832975	Rising 1A SI Accumulator Level - 1SI04TA	October 19, 2008
IR 834448	Paint Overspray on 346' P-18 Sprinkler Head Fusible Link	October 22, 2008
IR 834951	NRC PI&R ID'D IR Documentation Does Not Address PRA Change	October 23, 2008
IR 839535	Test EDG Fuel Oil for Bio-Diesel Before Delivery Acceptance	November 3, 2008
IR 845055	NOS ID Assessment Finding Associated with 1CS011A Removal	November 14, 2008
IR 849372	Facility and Equipment Issues from the NRC Graded Exercise	November 20, 2008
IR 849476	Question on Manual Actuation of CS to Reduce Offsite Dose	November 19, 2008
IR 849798	TSC ERO Performance Items from NRC Graded Exercise	November 26, 2008
IR 852425	NRC - Potentially Inadequate Op Evel for AF Tunnel Hatches	December 4, 2008
IR 852953	Continuing Issues with Transient Combustibles	December 5, 2008
IR 855891	RP Fleet Focus Area - Human Performance	December 13, 2008
IR 860458	Unit 2 Reactor Trip	December 27, 2008
IR 864746-06	EFR for Security Large Volume of CFE FMS Observations	July 28, 2009
IR 867058	Ineffective Fire Prot. Prog. Oversight and Implementation	January 15, 2009
IR 867475	CCA: Weaknesses in OPEX Performance	January 15, 2009
IR 869417	2008 Cathodic Protection Survey Result Actions	January 21, 2009
IR 877502	Scheduled Work Delayed - Place VA CO 69222 (OVA02CA)	February 6, 2009
IR 880654	Design Vulnerability in CC Surge Tank Makeup	February 13, 2009

IR 883920	Radioactive Shipment Was Not Recognized as Rad Material	February 23, 2009
IR 883985	NRC Finding Documented in Inspection Report (HUT Quench Vol)	February 23, 2009
IR 885127	Water Intrusion into 1AF01J	February 25, 2009
IR 898690	NO IR Generated for Instrument in Hospital Inventory Kit	March 27, 2009
IR 898849	Review OE28233 for Fleet Recommendations	March 27, 2009
IR 902241	CV Full flow Testing Acceptance Criteria Issues (1CV01PA)	April 3, 2009
IR 902326	Corrective Action Assignment Closed to an ACIT	April 3, 2009
IR 904986	Missed Eddy Current Indication	April 4, 2009
IR 904986	A1R14 Steam Generator 1B Foreign Object Wear	April 8, 2009
IR 906002	Pump Cleanliness Requirements	April 10, 2009
IR 908495	1A AF Pmp Seal Leak at Outboard End Plus Oil Leak at Housing	April 17, 2009
IR 916875	Rescheduled WO 1029505- 0VA02CA Again	May 7, 2009
IR 925506	NOS ID Missed Tech Spec LCO Entry	May 29, 2009
IR 927522	DEP Failure on Simulator During June 3 PI Drill	June 3, 2009
IR 937028	U2 CST Water Spilled to Ground During CP Rinse	June 30, 2009
IR 940938	1B DG Lube Oil Heater Not Cycling Off at Proper Temperature	July 11, 2009
IR 946512	Inadequate Approval for Changes to the Intent of CA Assign	July 28, 2009
IR 947274	NOS IDD CAPR Reference Not Documented	July 29, 2009
IR 948495	Call In Response for Unusual Event Less Than Desired	August 1, 2009
IR 950540	NOS ID Site Management Deficiencies in Dose Reduction	August 6, 2009
IR 952802	Choice of CST Leak for Off-Year Exercise Lessons Learned	August 13, 2009
IR 957600	BwOA Procedure Not Followed During 4/18/08 Seismic Event	August 26, 2009
IR 962492	TSC Performance Issues During Off-Year Exercise	September 8, 2009
IR 968376	NOS ID'D Review OPS IR's for Potential Adverse Trend	September 22, 2009
IR 969556	2B DG JW Heater Not Shutting Off - Identified on Rounds	September 24, 2009
IR 979488	Water On the Floor of the 2B AUX Feed Pump Room	October 14, 2009
IR 992258	2SC178 Stroke Times Exceeds Alert Limit, Needs Evaluation	November 12, 2009
IR 992488	Security Breaker Tripped	November 12, 2009
IR 996199	1A DG Lube Oil Temperature Control is High	November 19, 2009

IR 999440	2B DG Lube Oil Temperatures Steady, Not Cycling - 2TS-DG111B	November 30, 2009
IR 1013556	Security Diesel Min Batt Voltage on Startup Lower Than Limit	January 7, 2010
IR 1014513	Bad Bearing on 0VA01CC Causes Fire	January 9, 2010
IR 1014772	2SX178 Testing/Closeout Discrepancies	January 1, 2010
IR 1023138	0VA01CC Fan Shaft Damage Precludes Further Use	January 29, 2010
IR 1026633	Receipt of NRC Green Finding - Isolating VC Seismic Event	February 5, 2010
IR 1029694	2A DG Lube Oil Temp Controller Not Switching Heater On	February 12, 2010
IR 1035759	NRC Concern Regarding Deferral of U2 CC HX Flange Repair	February 25, 2010
IR 1038591	July 30, 2009 Unusual Event Declaration Reasoning	March 5, 2010
IR 1040066	Lack of Progress on 0VA01CD	March 8, 2010
IR 104659	K612 Failed to Remain Latch During 2PM06J Phase A Actuation	April 20, 2002
IR 1054668	TSC Performance Issues During NRC Evaluated Exercise	April 9, 2010
IR 1054933	2A DG Governor Response Is Not As Expected - 2DG01KA	April 10, 2010
IR 1057354	Rescreening of 3 Previous Security Reportable Events	April 16, 2010
IR 1060092	NOS ID: No Eval Done for Security EDG Surveillance Failure	April 21, 2010
IR 1060472	NOS ID Common Finding for Contract for EP Services	April 23, 2010
IR 1066847	High Levels in 1A & 1C SI Accumulator	May 7, 2010
IR 1067628	Receipt of NRC NCV CDBI - EDG Fuel Oil Consumption Calc	May 10, 2010
IR 1069892	Are Chem. Techs the Right Choice to Lower SI Accumulators	May 16, 2010
IR 1071070	Possible Summer Readiness Issues with 0VA02CA	May 19, 2010
IR 1072689	SI Accumulator Level Control Resource Issues	May 24, 2010
IR 1072807	SI Accumulator Sampling SR 3.5.1.5 Applicability	May 25, 2010
IR 1073637	Ineffective CAPR 739973-07	May 26, 2010
IR 1075957	2B Jacket Water Temp Switch Not Controlling in Auto	June 2, 2010
IR 1078640	Evaluate D/G Temp Switch Failure Rate for Operator Challenge	June 9, 2010
IR 1080455	OIO BMRK DG JW and LO Temperature Switches - Byron IR 1047627	June 15, 2010
IR 1083190	Failed Demonstration Criteria in TSC for June 3 PI Drill	June 10, 2010
IR 1083367	Continuing Temp Switch Issues on Emergency D/Gs	June 23, 2010
IR 1083797	OPS ID - 1TS-DG112A Not Operating Properly	June 24, 2010
IR 1084763	Battery Voltage Below Acceptance Criteria, 0BwOS IS-Q1	June 25, 2010

IR 1086088	NOS ID: 1T2010 Emergency Preparedness Performance Yellow	June 30, 2010
IR 1088364	Potential Design Vulnerability on Auxiliary Feedwater System	July 7, 2010
IR 1089189	1C SI Accumulator (1SI04TC) Level Showing an Upward Trend	July 9, 2010
IR 1089299	PI&R FASA ID'D - No CA Tracking Closure of NCV in CAP	July 9, 2010
IR 1091006	Access to EP Portable Generators in Warehouse Again Blocked	July 16, 2010
IR 1093043	1B DG Lube Oil Temp Switch Not Controlling Properly	July 21, 2010
IR 1094537	TSC Demonstration Criteria Failure in July 14 PI Drill	July 26, 2010
IR 1099124	1CV8525A Valve Stem Not Attached	August 7, 2010
IR 1100587	OPS ID: 1A DG Lube Oil Heater Improper Ops in Auto 1DG01KA-B	August 12, 2010
IR 1106896	Unit 1 RCS Leakrate Exceeds Action Level 3	August 27, 2010
IR 1109925	Momentary Unexpected Load Decrease During MPC Download	September 4, 2010
IR 1114604	Concern with Operability Determination	September 17, 2010

**Root Cause/Apparent Cause/Common Cause Report**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
IR 782299-04	Auxiliary Building Exhaust Fan, 0VA02CA, Failure	June 30, 2009
IR 809659-02	Calibration of Raymond Hydraulic Wrench is not in Compliance with the Requirements of the Quality Assurance Topical Report (QATR) for Certified Measurement & Testing Equipment (M&TE)	October 15, 2008
IR 829337-02	Fleetwide Adverse Trend in Oil / Chemical Spills	November 17, 2008
IR 835045-07	The Reactor Coolant System (RCS) dissolved hydrogen analyzer was used to perform a sample analysis on 10/22/08 to satisfy a Technical Requirements Manual (TRM) surveillance requirement, while bearing a calibration sticker indicating the next calibration due was 10/15/08	December 15, 2008
IR 852425-06	Delayed Actions to Address Low Margin Issue Associated with Latent Computational Errors Resulting in a Non-Cited Violation of Appendix B Criterion III and XVI	February 2, 2009
IR 860458-04	Unit Two Reactor Trip on UAT 241-1 Sudden Pressure Relay Actuation due to 2C Heater Drain Motor Electrical Fault	February 6, 2009
IR 864746-02	Security Large Volume of CFE FMS Observations	February 11, 2009
IR 867475-03	Weaknesses in OPEX Performance	February 13, 2009

IR 871991-03	Pre-screening of Work Orders for Pre-Authorization, Production and Reactivity Risk	March 3, 2009
IR 882872-11	NOS ID: Security Drills and Exercises ARMA	April 17, 2009
IR 885913-02	Security Procedure Use and Adherence	March 27, 2009
IR 902241-19	CV Full Flow Testing Acceptance Criteria Issues (1CV01PA)	May 12, 2009
IR 908495-02	Multiple Leaks on Unit 1 "A" Auxiliary Feedwater Pump (1AF01PA) after Completion of Maintenance Activities During A1R14	May 21, 2009
IR 937028-10	U2 CST Water Spilled to Ground During CP Rinse	August 20, 2009
IR 994317-07	Maintenance Rule (A)(4) Compensatory Measures Not Fulfilled Resulting in an Unplanned On-Line Risk Status Change to Yellow Due to Procedure Prerequisite Step Not Followed	November 16, 2009
IR 1009172-05	Unplanned LCO Entry 1CC9412B Found Without Light Indication	February 12, 2010
IR 1014513-07	0VA01CC Fan Bearing Failed	May 5, 2010
IR 1028837-03	Lack of Adherence to Administrative Procedures within Maintenance Leads to NOS Identifying an Area Requiring Management Attention	February 11, 2010
IR 1035759-04	Deferral of Unit 2 Component Cooling Water Heat Exchanger Flange Repair from A2R14 to A2R15	April 16, 2010
IR 1092920-04	Security Officer Discovers .223 Round is Missing From Contingency Weapon	August 15, 2010

### **Operating Experience**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
IR 665762	OPEX Evaluation of NRC RIS, "Adherence to Licensed Power Limits"	January 1, 1900
IR 819932	OE 27370 - Cracked Shorting Ring on EDG (SONGS)	September 19, 2008
IR 860167	OPEX Evaluation of NRC IN 2008-21, "Impact of Non-Safety Electrical Support System Vulnerabilities on Safety Systems"	June 19, 2009
IR 864082-02	RAI for NRC Bulletin 2007-01 Assessment	January 30, 2009
IR 893946	OE 28391 Review, Ensure Cal Instructions are Followed	March 17, 2009
IR 898494	IN 2009-02 Biodiesel Impact on Diesel Engine Performance	March 27, 2009
IR 953426	IN 2009-08 Rapid Notification Process for Physical Attacks	August 14, 2009
IR 959926	OPEX Evaluation of NRC IN 2009-22, "Recent Human Performance Issues at Nuclear Power Plants"	
IR 987761-01	Review of Diesel Generator OE	January 13, 2010
IR 1068084	OE 31102 Security Review for Applicability to Braidwood	March 11, 2010

OE 4789	Lack of Documentation to Support Diesel Generator Tornado Design Basis	August 27, 1991
OE 28110	Unprotected Diesel Generator Fuel Oil Tank Vents (Catawba)	January 20, 2009
OE 28237	Underground Fuel Oil Storage Tank Vent Vulnerability to Tornado Missile Strike (North Anna)	February 16, 2009

### **Audits, Assessments, and Self-Assessments**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
IR 696206-02	CHECK-IN Self Assessment - Clearance and Tagging, 1/2008 - 10/2008	December 1, 2008
IR 696847-03	FASA EP Pre-NRC Inspection	November 9, 2007
IR 794909-03	Braidwood Triennial Fire Protection Inspection Preparatory Self-Assessment	December 12, 2008
IR 826356-02	Security Safety Conscious Work Environment	October 21, 2008
IR 826775-03	Chemistry Records/ Chemistry Aids	July 31, 2009
IR 832367-02	CHECK-IN Self Assessment - Clearance and Tagging, 10/2008 - 7/2009	September 30, 2009
IR 832370-02	CHECK-IN Self Assessment - Evaluate Braidwood stations compliance with SOER 07-01	August 28, 2009
IR 837394-02	CHECK-IN Self Assessment - Access to Rad Significant Areas	March 17, 2009
IR 837415-02	CHECK-IN Self Assessment - ALARA Planning and Controls	February 4, 2009
IR 837416-02	CHECK-IN Self Assessment - Occupational Exposure Control Effectiveness	March 13, 2009
IR 837418-02	CHECK-IN Self Assessment - Access to Rad Significant Areas	August 5, 2009
IR 837421-02	CHECK-IN Self Assessment - ALARA Planning and Controls	August 5, 2009
IR 838584-03	Pre-NRC Force-On-Force Inspection FASA	July 8, 2010
IR 864012-02	Technical Human Performance Gaps in Maintenance	September 30, 2009
IR 865569-02	Configuration Change Quality Annual Assessment	February 6, 2009
IR 902872-03	Gap in Planning Process	September 8, 2009
IR 907077-02	Braidwood Security Training Paperwork	May 27, 2009
IR 912155-02	Security Aid and Standing Order Check-In	November 18, 2009
IR 961524-03	Readiness Review for 2010 NRC Component Design Basis Inspection	January 19, 2010
IR 963260-02	CHECK-IN Self Assessment - Pre-NRC EP Exercise and PI Inspection	January 22, 2010
IR 971944-03	FASA for Preparation of NRC Identification and Resolution (PI&R) Inspection	July 28, 2010

IR 1018707-02	Security Pre-NRC Inspection check Protections of Safeguards	March 12, 2010
NOSA-BRW-07-04	Emergency Preparedness Audit	May 20, 2007
NOSA-BRW-07-07	Operations Audit Report	December 5, 2007
NOSA-BRW-08-03	Emergency Preparedness Audit	January 8, 2008
NOSA-BRW-08-13	Radiation Protection Increased Frequency Audit Report	January 8, 2008
NOSA-BRW-09-01	Corrective Action Program Audit Report	May 19, 2009
NOSA-BRW-09-04	Emergency Preparedness Audit	December 2, 2008
NOSA-BRW-09-05	Engineering Design Control Audit	August 31, 2009
NOSA-BRW-09-06	Radiation Protection Audit Report	September 14, 2009
NOSA-BRW-09-07	Operations Audit	November 12, 2009
NOSA-BRW-10-01	Maintenance Audit Report	March 25, 2010
NOSA-BRW-10-02	Security Programs Audit Report	February 3, 2010
NOSA-BRW-10-03	Emergency Preparedness Audit Report	December 8, 2009
NOSA-BRW-10-04	Chemistry, Radwaste, Effluent and Environmental Monitoring Audit Report	July 14, 2010
NOSA-BRW-10-16	Corrective Action Program Increased Frequency Audit Report	March 17, 2010
NOSA-BRW-10-01	Maintenance Audit Report	February 19, 2010
	Nuclear Safety Culture Assessment	March 2, 2010
	Semi-Annual Safety Culture Review - May 2010	July 13, 2010
	Semi-Annual Safety Culture Review - September 2009	March 1, 2010
	Semi-Annual Safety Culture Review - November 2008	November 20, 2008

## Drawings

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
I&C-6 M-66, Sheet 4B	TSC Inverter Diagram of Component Cooling	Revision 2 July 23, 1975

**Others**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CALC 19-D-6	Sizing the TSC/Security Computers UPS	Revision 000E
EC 344716	Provide the Security Diesel Loaded Frequency Requirement	November 12, 2003
EC 344717	Evaluate Security DG Battery Voltage Acceptance Criteria in 0BwOS IS-Q1	November 12, 2003
EC 372604	Add Redundant Class Break Isolation to CC Surge Tank Makeup Unit 2	Revision 0
EC 374602	Add Redundant Class Break Isolation to CC Surge Tank Makeup Unit 2	Revision 0
EC 377473	Force on Force Readiness Project, Scope 10.1.9.3 - Five PTZ Rooftop Cameras	Revision 10
EC 377882	Add Redundant Class Break Isolation to CC Surge Tank Makeup Unit 1	Revision 0
EC 377883	Add Redundant Class Break Isolation to CC Surge Tank Makeup Unit 1	Revision 0
IR 992488-04	QHPI for Loss of Power to Security Equipment During Modification Work	December 15, 2009
L-2719	Vendor's Manual – Sargent and Lundy Spec., Auxiliary feedwater pump motors	
LO-09-04	LORT Required Reading Package	June 26, 2009
WO 621198	125V Security & Technical Support Center Battery Performance Test	March 1, 2005
WO 626470	Replace Batteries for 0DG01EB	January 12, 2005
WO 690337-01	MM - Valve Leaks By	April 26, 2010
WO 941369	Security Diesel Generator Periodic Surveillance (Loaded Run)	November 18, 2006
WO 980964	Security Diesel Generator Periodic Surveillance (Loaded Run)	June 21, 2007
WO 990982-03	MM - Shaft Damage Discovered on 1B HD Pump	February 18, 2009
WO 1041980	Security Diesel Generator Periodic Surveillance (Loaded Run)	December 26, 2007
WO 1093021	Security Diesel Generator Periodic Surveillance (Loaded Run)	July 11, 2008
WO 1152081	Security Diesel Generator Periodic Surveillance (Loaded Run)	January 8, 2009
WO 1181465-01	MM - Replace Sprinkler Head fusible Link at 346/P/18	December 17, 2009
WO 1200091-01	1HD01PB-M Extent of Condition Termination Inspection	July 28, 2009
WO 1201305	Security Diesel Generator Periodic Surveillance (Loaded Run)	June 24, 2009
WO 1219315	MM - Schedule Inspection of 1HD01PC Upper Shaft	October 24, 2009



WO 1228394-02	MM - Perm Repair - Oil Leak at Outboard B. Cover. Remove TCC	April 12, 2010
WO 1285664-01	Security Breaker Tripped in Power Dist Panel #PW2	November 17, 2009
WO 1361122	U2 SX System Flow Balance	August 12, 2010
WO Contract 463696	Perform a study to support 4 successive starts of AF motor Selected Chemistry Support Requests	August 18, 2010 March 2009 to August 2009
	Non - Outage Backlog - Corrective Maintenance	September 1, 2010
	Non - Outage Backlog - Elective Maintenance	September 1, 2010

### **Plant Procedures**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
0BwCSR TRM App. L - CST	Unit 1 and Unit 2 Condensate Storage / Containment Access Facility Tanks Once Per 7 Days	Revision 4
0BwOA ENV-4	Earthquake	Revision 106
0BwOA ENV-4	Earthquake	Revision 108
0BwOA ENV-4	Earthquake	Revision 109
0BwOS IS-Q1	Unit Common Security Diesel Generator Loaded Run Surveillance	Revision 15
2BwOA-PRI-1	Excessive primary plant leakage Unit 2	Revision 103
BwAP 340-1	Use of Procedures for Operating Department	Revision 24
BwAR 0CP01J-5-B1	Low Conductivity Sump Level High	Revision 5
BwCP 340-1	Chemical Additions to Plant Systems and Components	Revision 13
BwHP 4006-008	Repairing, Determinating, Terminating, Splicing, Taping, Cable Jacket Repair and Application of Raychem Kit on Cable	Revision 17
BwOP AP-47T1	Electrical Loads on 480V Switchgear Bus 033W	Revision 4
BwOP DO-21	Filling the Security Diesel Generator Fuel Oil Day Tank	Revision 15
CY-AA-110-400	Chemistry Adjustment	Revision 3
CY-AA-130-100	Inline Instrument Quality Control	Revision 2
CY-AA-130-200	Quality Control	Revision 9
EI-AA-1	Safety Conscious Work Environment	Revision 24
EI-AA-101	Employee Concerns Program	Revision 8
EI-AA-101-1001	Employee Concerns Program Process	Revision 9
EI-AA-101-1002	Employee Concerns Program Trending and Reporting Tools	Revision 5

HU-AA-104-101	Procedure Use and Adherence	Revision 4
LS-AA-115	Operating Experience Program	Revision 14
LS-AA-115-1003	Processing of Significance Level 3 OPEX Evaluations	Revision 0
LS-AA-120	Issue Identification and Screening Process	Revision 12
LS-AA-125	Corrective Action Program (CAP) Procedure	Revision 14
MA-AA-716-025	Scaffold Installation, Modification, and Removal Request Process	Revision 8
MA-MW-726-022	Electrical Cable Termination and Inspection	Revision 4
OP-AA-108-115	Operability Determinations	Revision 9
OP-BR-108-101-1002	Operations Department Standards and Expectations	Revision 14
RP-AA-460	Controls for High and Locked High Radiation Areas	Revision 20
RP-BR-654	Unit 1(2) Containment Access Facility Drain Collection Tanks	Revision 8
SY-AA-1020-F-02	Security Post Orders	Revision 3
WC-AA-111	Predefine Process	Revision 3

**Issue Reports Generated During the Inspection**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
IR 1108069	PI&R ID'D - USFAR Update Completed to an MREQ/ACIT	August 31, 2010
IR 1112604	PI&R - Review Security Generator Class and Documentation	September 13, 2010
IR 1117317	Performance Deficiency for Security DG	September 24, 2010
IR 1117316	Performance Deficiency Exited for DG Temp Switches	September 24, 2010
IR 1117314	Performance Deficiency Exited During PI&R for VA Fan Repair	September 24, 2010
IR 1117312	NRC Exited Minor Violation for OPS QHPI Results	September 24, 2010
IR 1117308	NRC Exited Potential NCV for Loss of AF and OP Eval	September 24, 2010
IR 1117296	NRC Exited Green NCV for RHUT Analysis	September 24, 2010

## LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
CAP	Corrective Action Program
CAPR	Corrective Action to Prevent Reoccurrence
CFR	Code of Federal Regulations
CP	Condensate Polisher
CST	Condensate Storage Tank
ECP	Employee Concerns Program
IMC	Inspection Manual Chapter
IR	Issue Report
LCO	Limiting Condition for Operation
MRC	Management Review Committee
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NOS	Nuclear Oversight
PI&R	Problem Identification and Resolution
OE	operating experience
QHPI	Quick Human Performance Indicator
RHR	Residual Heat Removal
RHUT	Recycle Holdup Tank
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SOC	Station Ownership Committee
SSC	Systems, Structures, and Components
TS	Technical Specifications
TSC	Technical Support Center
UFSAR	Updated Final Safety Analysis Report

the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Braidwood Station. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

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 Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Eric R. Duncan, Chief  
Branch 3  
Division of Reactor Projects

Docket Nos. 50-456; 50-457  
License Nos. NPF-72; NPF-77

Enclosure: Inspection Report No. 05000456/2010006 and 05000457/2010006  
w/Attachment: Supplemental Information

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Letter to M. Pacilio from E. Duncan dated October 27, 2010.

SUBJECT: BRAIDWOOD STATION, UNIT 1 & 2, NRC BIENNIAL  
PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION  
REPORT 05000456/2010006; 0500457/2010006

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