



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

November 6, 2015

Mr. Bryan C. Hanson  
Senior VP, Exelon Generation Company, LLC  
President and CNO, Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: CLINTON POWER STATION–NRC PROBLEM IDENTIFICATION AND  
RESOLUTION INSPECTION REPORT 05000461/2015007**

Dear Mr. Hanson:

On October 15, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution (PI&R) inspection at your Clinton Power Station. The enclosed inspection report documents the inspection results, which were discussed at an exit meeting on October 15, 2015, with Mr. D. Kemper and other members of your staff.

The inspectors 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 the Corrective Action Program (CAP) at Clinton Power Station was generally effective in identifying, evaluating and correcting issues. The team determined that station personnel generally had a low threshold for identifying issues and entering them into the CAP. However, the inspectors identified several examples where conditions adverse to quality were not entered into the CAP until prompted by the resident inspectors. A risk based approach was used to determine the significance of the issues and priority for issue evaluation and resolution. Corrective actions were generally implemented in a timely manner, commensurate with their safety significance. In addition, self-assessments and audits were found to be conducted at appropriate frequencies with sufficient depth for all departments. The assessments reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. On the basis of the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment at Clinton Nuclear Power Station. Licensee staff was aware of and generally familiar with the CAP and other station processes, including the employee concerns program, through which concerns could be raised. The team determined that your station's performance in each of these areas supported nuclear safety.

Based on the results of this inspection, one NRC identified finding of very low safety significance (Green) was documented in this report. This finding involved a violation of NRC requirements. The NRC is treating this violation as a Non-Cited Violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

B. Hanson

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If you contest the subject or severity of the 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 copies to the Regional Administrator, Region III; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Clinton Nuclear Power Station. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Clinton Nuclear Power Station.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," 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's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management 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 Kenneth Reimer Acting for/***

Karla Stoedter, Chief  
Branch 1  
Division of Reactor Projects

Docket No. 50-461  
License No. NPF-62

Enclosure:  
Inspection Report 05000461/2015007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-461  
License No: NPF-62

Report No: 05000461/20150007

Licensee: Exelon Generation Company, LLC

Facility: Clinton Power Station

Location: Clinton, IL

Dates: September 28, 2015, through October 15, 2015

Team Leader: C. Phillips, Project Engineer

Inspectors: E. Sanchez-Santiago, Resident Inspector  
S. Mischke, Resident Inspector, Illinois Emergency  
Management Agency

Approved by: K. Stoedter, Chief  
Branch 1  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

Inspection Report 05000461/2015007; 09/28/2015 – 10/15/2015; Clinton Power Station, Unit 1; Identification and Resolution of Problems.

This inspection was performed by one region-based inspector and the Clinton Nuclear Power Station Resident Inspector. One Green finding was identified by the inspectors. This finding and violation was considered a Non-Cited Violation (NCV) of U.S. Nuclear Regulatory Commission (NRC) regulations. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red), and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5, dated February 2014.

### Identification and Resolution of Problems

- Overall, the Clinton Power Station Corrective Action Program (CAP) was appropriately identifying, evaluating, and correcting issues. Issues appeared to be generally identified at a low threshold. This was evident in that there was an average number of about 9000 issue reports (IRs) written in each of the past 5 years. In interviews conducted by the inspectors, it was evident that station employees had no reservations about writing IRs. However, there were several examples in the last year where conditions adverse to quality were identified and IRs were not written until prompted by the resident inspectors. Sometimes the prompting occurred on more than one occasion. Overall performance in prioritization and evaluation of issues was effective. Issues were generally appropriately screened by both the Station Ownership Committee and the Management Review Committee. Corrective actions reviewed were generally effective and timely. The inspectors' review of the licensee's efforts to address issues with the instrument air system did not identify any negative trends or inability to address long term issues.

The inspection did not cover operating experience in a broad scope because it was covered in detail during the Operational Safety Review Team inspection and documented in an International Atomic Energy Agency Report (ADAMS Accession Number ML15062A115). However, the inspectors did review five NRC information notices issued in the last 2 years, and had no issues with the licensee's review of those issues.

The inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. The inspectors observed that CAP items had been initiated for issues identified through Nuclear Oversight audits and self-assessments. The inspectors reviewed the most recent self-assessment performed on CAP; found no issues, and generally agreed with the overall results and conclusions drawn.

The inspectors determined that the plant staff were aware of the importance of having a strong safety-conscious work environment and expressed a willingness to raise safety issues. No one interviewed had experienced retaliation for raising safety issues. All plant staff interviewed had an adequate knowledge of the CAP process. Based on these limited interviews we concluded that there was no evidence of an unacceptable safety-conscience work environment.

### **Cornerstones: Mitigating Systems**

- Green. The inspectors identified a finding of very low safety significance, and an associated NCV of Title 10, *Code of Federal Regulations*, Part 50, Appendix B, Criterion II, "Quality Assurance Program," for the failure to perform activities in accordance with procedure PI-AA-125, "Corrective Action Program," Revision 2, which was a Quality Assurance Program implementing procedure. Specifically, the inspectors identified six examples where the licensee failed to generate IRs for conditions adverse to quality (CAQ) as required by PI-AA-125, until prompted by the inspectors. The licensee documented the issue in the CAP as IR 2518477, and planned on reviewing the apparent cause evaluation to determine if additional actions needed to be taken.

The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Specifically, by not identifying and documenting conditions adverse to quality the issues would not go through the screening and review process in accordance with the corrective action procedure, which could impact the identification of conditions affecting operability. The finding was screened against the Mitigating Systems cornerstone, and determined to be of very low safety significance because the it did not represent a loss of safety system or function, it did not represent an actual loss of function of a single train of two separate trains for greater than its allowed outage time and it did not represent a loss of function of a non-technical specification system designated as highly safety-significant within the licensee's Maintenance Rule Program for greater than 24 hours. The inspectors determined this finding affected the cross-cutting area of problem identification and resolution in the aspect of identification where the organization implements a CAP with a threshold for identifying issues and individuals identify issues completely, accurately and in a timely manner in accordance with the program. Specifically, the licensee failed to identify issues completely, accurately and in a timely manner, causing them to not recognize issues as CAQs, and therefore not follow their process for handling these issues. [P.1] (Section 40A2.1.b.(1).i))

## REPORT DETAILS

### 4. OTHER ACTIVITIES

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

This inspection constituted one biennial sample of Problem Identification and Resolution (PI&R) as defined by Inspection Procedure 71152, "Problem Identification and Resolution." This inspection was performed by reviewing fewer documents than normal because inspection credit was given toward the biennial PI&R inspection for the performance of the Operational Safety Review Team (OSART) inspection by the International Atomic Energy Agency in August 2014. Documents reviewed were listed in the Attachment to this report.

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

##### a. Inspection Scope

The inspectors reviewed the procedures and processes that described the Corrective Action Program (CAP) at Clinton Power Station to ensure, in part, that the requirements of Title 10, *Code of Federal Regulations* (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," were met. The inspectors observed and evaluated the effectiveness of meetings related to the CAP, such as the Management Review Committee and the Station Ownership Committee meetings.

The inspectors reviewed selected issue reports (IRs) to determine if problems were being properly identified and entered into the licensee's CAP. The majority of the risk-informed samples of IRs reviewed were issued since the last U.S. Nuclear Regulatory Commission (NRC) biennial PI&R inspection completed in August 2013.

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

The inspectors selected the instrument air (IA) system to review in detail based on input from the resident staff. The primary purpose of this review was to determine whether the licensee was monitoring and addressing performance issues of this risk-significant system. A 5-year review of the IA system issues was also performed to assess the licensee's efforts in monitoring and correcting system and component level performance issues. The inspectors performed a system walkdown to verify the resolution of issues.

The inspectors examined the results of self-assessments of the CAP completed during the review period. The results of the self-assessments were compared to self-revealed and NRC-identified findings. The inspectors also reviewed the CAs associated with a portion of the previously identified Non-Cited Violations (NCVs), and findings to determine whether the station properly evaluated and resolved those issues. The inspectors also reviewed the open CA items related to the one White performance

indicator that were not completed by the end of the associated 95001 supplemental inspection (Inspection Report 05000461/2014008, ADAMS Accession Number ML14240A522).

b. Assessment

(1) Identification of Issues

Based on the inspection results, the inspectors concluded that, in general, the station was effective in identifying issues at a low threshold and entering them into the CAP. This was evident by the approximate 9000 IRs written yearly in each of the past 5 years. In interviews conducted by the inspectors, it was evident that station employees had no reservations about writing IRs. The inspectors determined that normally problems were identified and captured in a complete and accurate manner in the CAP. The inspectors also noted that deficiencies were identified by external organizations (including the NRC) that had not been previously identified by licensee personnel. These deficiencies were subsequently entered into the CAP for resolution. However, there were several examples in the last year where conditions adverse to quality (CAQ) were identified and the licensee did not write IRs until prompted by the resident inspectors. Sometimes the prompting occurred on more than one occasion.

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 CAs were ineffective or were inappropriately closed.

The inspectors performed a 5-year review of the IA system. As part of this review, the inspectors reviewed a sample of IA system health reports, IRs, operating experience, and Maintenance Rule status. The inspectors reviewed licensee's CAP and work management system procedures that provided guidance for trending. In addition, the inspectors walked down portions of the IA system. The inspectors concluded that IA related concerns were identified and entered into the CAP at a low threshold, and concerns were resolved in a timely manner commensurate with their safety significance.

c. Observations and Findings

Failure to Generate Issue Reports for Conditions Adverse to Quality

Introduction. The inspectors identified a finding of very low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion II, "Quality Assurance Program," for the failure to perform activities in accordance with procedure PI-AA-125, "Corrective Action Program," Revision 2, which was a Quality Assurance Program implementing procedure. Specifically, the inspectors identified six examples where the licensee failed to generate IRs for CAQ as required by PI-AA-125. Issue reports were subsequently written after the licensee was prompted by the inspectors.

Description. From October 2014 through September 2015, the inspectors noticed a trend in the lack of generation of IR's for CAQs. Through direct observation or questions related to activities either completed or in progress, the inspectors identified six examples of CAQs that were not properly documented in the CAP. The licensee's Quality Assurance Program is described in the quality assurance topical report (QATR) The CA procedure, PI-AA-125, implemented part of the Quality Assurance Program as described in the QATR. Step 4.1.2 of PI-AA-125 stated, "If at any time a SCAQ, CAQ, or

any question of either current or past operability/reportability arises, then initiate an IR in accordance with PI-AA-120.”

On October 15, 2014, while performing safety related cable vault inspections, the licensee identified the cable vaults were full of water and the cables were completely submerged. The inspectors observing these activities questioned whether this condition was documented in an IR. The licensee had documented an IR due to a discrepancy between the cable vault level indication lights and the actual level in the vault. However, this IR failed to document the safety-related cables being submerged and therefore, the CAQ was not properly addressed. After additional questioning by the inspectors, the licensee properly documented the as found condition of the cable vaults in an IR on October 20, 2014. The above violation was documented in NCV 05000461/2015001-02. During this same evolution, the inspectors also identified the licensee did not have a plant barrier impairment (PBI) in place, as required by procedure, for the removal of the cable vault plugs. The inspectors brought this to the licensee’s attention on various occasions and pointed out that the failure to have a PBI was a failure to follow their procedures. Per the definition provided in the licensee’s CA procedure, the failure to have a PBI in place was a CAQ and was required to be documented in an IR. The inspectors continued to question why this issue was not documented for several days until the licensee generated an IR as required. The above CAQ was determined to have minor safety significance.

On April 22, 2015, and May 21, 2015, while performing plant walkdowns the Illinois Emergency Management Agency inspector identified materials being stored in proximity of safety related equipment. This was contrary to the requirements establish in the transient equipment procedure CPS 1019, “Transient Equipment/Materials,” Revision 22. The inspectors brought this information to licensee management’s attention immediately upon discovery. The licensee did not generate an IR for this CAQ until the inspector prompted them on several occasions. The above violation was documented in NCV 05000461/2015003-02.

The inspectors communicated the identification of this trend to the licensee during the second quarter 2015 inspection exit meeting. The licensee performed an apparent cause evaluation (ACE 2529137) to determine why IRs were not being written for CAQs in a timely manner and why IRs were not written when they should have been. The causes were determined to be that the meaning of “promptly initiate IRs” was neither consistently nor correctly understood by the licensee’s staff and that licensee personnel did not have not sufficient knowledge of the CAP process to know when to write IRs. The proposed CAs included communicating expectations and standards with regards to generating IRs, perform benchmarking at other sites, and provide training.

Subsequent to the communication of the trend to the licensee, the inspectors identified three additional examples where a CAQ was identified and an IR was not generated until prompted by the inspectors. These were the failure to retain quality documentation as required by 10 CFR Part 50, Appendix B, Criterion XVII, the failure to evaluate the impact of over-pressurizing the drywell airlock door seal during local leak rate testing, and the failure to perform a past operability determination for having transient equipment identified in proximity to safety-related equipment. The above three CAQs were individually determined to have minor safety consequence and were not documented.

Based on these six examples, the inspectors determined there was a programmatic issue related to the CAP, specifically, in the area of identification and documentation of CAQs. The licensee documented this issue in their CAP as IR 2568575, and planned on reviewing the ACE to determine if additional actions need to be taken.

Analysis. Title 10 CFR Part 50, Appendix B, Criterion II, "Quality Assurance Program," requires, in part, that the applicant shall establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a Quality Assurance Program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions. The inspectors determined that the failure to perform activities in accordance with procedure PI-AA-125, "Corrective Action Program," Revision 2, which was a Quality Assurance Program implementing procedure, was a performance deficiency. Specifically, the inspectors identified six examples where the licensee failed to generate an IR for a CAQ as required by PI-AA-125, without being prompted by the inspectors.

The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected it had the potential to lead to a more significant safety concern. Specifically, by not identifying and documenting CAQs, the issues would not go through the screening and review process, in accordance with the CA procedure, which could impact the identification of conditions affecting operability. Using IMC 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," issued June 19, 2012, the finding was screened against the Mitigating Systems cornerstone, and determined to be of very low safety significance (Green) because the finding did not represent a loss of safety system or function, it did not represent an actual loss of function of a single train of two separate trains for greater than its allowed outage time and it did not represent a loss of function of a non-technical specification system designated as highly safety-significant within the licensee's maintenance rule program for greater than 24 hours.

The inspectors determined this finding affected the cross-cutting area of PI&R in the aspect of identification where the organization implements a CAP with a threshold for identifying issues. Individuals identify issues completely, accurately and in a timely manner in accordance with the program. Specifically, the licensee failed to identify issues completely, accurately and in a timely manner, causing them to not recognize issues as CAQs, and therefore not follow their process for handling these issues. [P.1]

Enforcement. Title 10 CFR Part 50, Appendix B, Criterion II, "Quality Assurance Program," requires, in part, that the applicant shall establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a Quality Assurance Program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions. The CA procedure PI-AA-125, which implemented part of the QATR, Step 4.1.2 states, "If at any time a SCAQ, CAQ, or any question of either current or past operability/reportability arises, then initiate an IR in accordance with PI-AA-120."

Contrary to the above, from October 2014 through September 2015 the inspectors identified six examples where the licensee failed to carry out activities in accordance with a procedure established to implement the Quality Assurance Program. Specifically, the licensee failed to generate an IR in accordance with PI-AA-125, for CAQs on several occasions until prompted by the inspectors. The licensee performed an ACE to determine the cause for the delay in documenting CAQs and planned to review the evaluation to determine if additional actions need to be taken as a result of the examples mentioned in this violation. Because this violation is of very low safety significance, and was entered into the licensee's CAP as IR 2568575, this violation is being treated as a NCV consistent with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000461/ 2015007-01, Failure to Generate Issue Reports for Conditions Adverse to Quality)**

(2) Prioritization and Evaluation of Issues

Based on the results of the inspection, the inspectors concluded that the station was effective at prioritizing and evaluating issues commensurate with the safety significance of the identified issue, including an appropriate consideration of risk.

The inspectors determined that the Management Review Committee meetings and the Station Ownership Committee meetings were generally thorough and maintained a high standard for evaluation quality.

The inspectors performed a review of issues related to the condensate booster system. The system entered into the Maintenance Rule (a)(1) category in March 2015 due to a repeat maintenance preventable functional failure. The Inspectors reviewed action plans approved by the expert panel, associated cause evaluations, Maintenance Rule evaluations, and IRs. The inspectors noted that the licensee generally showed no reluctance in placing structures, systems, and components (SSCs) into Maintenance Rule (a)(1) status. Appropriate CAs to address the maintenance deficiencies were prescribed and completed. A detailed review of the SSC's performance generally occurred before returning it to (a)(2) status.

The inspectors determined that the licensee usually evaluated equipment functionality requirements adequately after a degraded or non-conforming condition was identified. In general, appropriate actions were assigned to correct the degraded or non-conforming condition.

a. Observations and Findings

No findings were identified.

(3) Effectiveness of Corrective Action

Based on the results of the inspection, the inspectors concluded that the licensee was generally effective in addressing identified issues and the assigned CAs were generally appropriate. The licensee implemented CAs in a timely manner, commensurate with their safety significance, including an appropriate consideration of risk. Problems identified using root or apparent cause methodologies were resolved in accordance with the CAP procedural and regulatory requirements. CAs designed to prevent recurrence were generally comprehensive, thorough, and timely. The inspectors sampled CA assignments for selected NRC and licensee identified documented violations and determined that actions assigned were generally effective and timely.

a. Observations and Findings

Corrective Action to Prevent Recurrence Not Completed

The inspectors identified one minor example of a CA to prevent recurrence (CAPR) that was not completed as described. The inspectors reviewed ACIT 1590671–53 which was written to ensure that the licensee performed a side by side review of procedure CPS 9059.01 with the equivalent reactor coolant system leakage test procedures from LaSalle and another BWR 6 station. The inspectors determined that although the side by side procedure comparison was performed, the recommendations developed from the comparison were not incorporated into CPS 9059.01. The licensee acknowledged that the incorporation of the recommendations was closed to CAPR 1590671–33. However, CAPR 1590671–33 was closed out without incorporating the recommendations into the respective procedure.

Title 10 CFR Part 50, Appendix B, Criterion II, states, “The applicant shall establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a Quality Assurance Program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions.”

The licensee’s Quality Assurance Program was established in the QATR. CA procedure PI-AA-125 implemented a portion of the licensee’s CAP as described in the QATR and stated, “Corrective actions and CAPRs are those actions that ensure compliance with the quality requirements is restored as well as fulfilling the requirements of 10 CFR Part 50, Appendix B, Criterion XVI. As such, these Assignment Types represent the highest priority actions within the CA Process and shall be completed in strict compliance with the requirements of this procedure to ensure that the actions are completed in a timely, effective and complete manner as they directly ensure the safe operation of the facility and compliance with regulatory requirements.”

Contrary to the above, the licensee failed to carry out the CA portion of their Quality Assurance Program in accordance with procedure PI-AA-125. Specifically, the licensee failed to complete actions associated with ACIT 1590671–53 after the ACIT actions were incorporated into CAPR 1590671–33. The licensee captured this in IR 2563071, “Procedure Changes Recommended By ACIT 1590671–53 Not All Incorporated.” However, since the procedure recommendations were considered to be enhancements and not critical to restore compliance or prevent recurrence the safety significance of this violation was determined to be minor.

(4) Licensee Identified Violations Not Being Treated as Conditions Adverse to Quality

During the review of previous licensee identified violations (LIVs), the inspectors noted a difference in how these violations were dispositioned as compared to NRC identified or self-revealed violations. The inspectors questioned the licensee as to whether LIVs were considered CAQs. The licensee indicated that per their process LIVs are not automatically considered CAQs and the classification of these issues, as well as to whether CA are assigned to them, would be dependent on the specific issue.

Procedure PI-AA-125, “Corrective Action Program,” Revision 2, defined CAQs as “an all-inclusive term used in reference to any of the following: failures, malfunctions,

deficiencies, defective items, and non-conformances.” Furthermore, this procedure defined a deficiency as “a condition or concern that does not meet specific requirements of procedures, policies, management expectations, or accepted industry standards.” A CA was defined in part as “an action taken or planned that restores a CAQ to an acceptable condition or capability.” For the Exelon Nuclear CAP, a CA is any action that is necessary to restore a Level 4 condition that directly impacts a commitment within Licensing Design Basis, such as the Updated Safety Analysis Report, QATR, Technical Specification, Fire Protection Plan, Security Plan, Emergency Preparedness Plan or a 10 CFR Part 50 required program.

Title 10 CFR Part 50, Appendix B, Criterion II, states in part, that the applicant shall establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a Quality Assurance Program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions.

CA procedure PI-AA-125 implemented the licensee’s CAP as described in the QATR and stated, “CAs and CAPRs are those actions that ensure compliance with the quality requirements is restored as well as fulfilling the requirements of 10 CFR Part 50, Appendix B, Criterion XVI. As such, these Assignment Types represent the highest priority actions within the CA Process and shall be completed in strict compliance with the requirements of this procedure to ensure that the actions are completed in a timely, effective and complete manner as they directly ensure the safe operation of the facility and compliance with regulatory requirements.”

Contrary to the above, the inspectors identified various examples of LIVs previously documented in inspection reports, specifically violations of the licensee’s security plan and a violation of the maintenance rule, which is a 10 CFR Part 50 required program, that were not considered CAQs by the licensee and therefore CAs were not assigned to them. The deficiencies were restored to compliance using an ACIT, which is used to improve performance or correct minor problems that do not represent a CAQ. This issue represents a violation of 10 CFR Part 50, Appendix B, Criterion II, for the failure to follow procedure PI-AA-125, which implements portions of the QATR. The inspectors determined this violation was minor because there were no examples where the actions taken to restore compliance were incorrect or were not completed in a timely manner as a result of how the licensee characterized LIVs within their CAP. This issue was documented in the CAP as IR 2568286.

## .2 Assessment of the Use of Operating Experience

### a. Inspection Scope

The inspectors did not perform an extensive review of the licensee’s implementation of the facility’s Operating Experience Program. Credit was given for the inspection performed by the OSART. However, the inspectors did review five NRC information notices issued in the last 2 years. The inspectors also assessed if CAs, as a result of operating experience, were identified and implemented effectively and in a timely manner.

b. Assessment

Based on the results of the inspection, the inspectors had no issues with the licensee's review of the five NRC information notices.

c. Observations and Findings

No observations or findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed selected self-assessments, bench markings, and Nuclear Oversight audits, as well as the schedule of past and future assessments. The inspectors evaluated whether these audits and self-assessments were effectively managed, adequately covered the subject areas, and properly captured identified issues in the CAP. In addition, the inspectors interviewed licensee personnel regarding the implementation of the audit and self-assessment programs.

b. Assessment

Based on the results of the inspection, the inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. 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. These issues were entered into IRs as required by the CAP procedures.

c. Observations and Findings

No observations or findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors interviewed selected Clinton Power Station personnel to determine if there were any indications that licensee personnel were reluctant to raise safety concerns to either their management or the NRC due to fear of retaliation. The inspectors also assessed the licensee's safety conscious work environment through a review of Employee Concern Program (ECP) implementing procedures, discussions with an ECP manager, interviews with personnel from various departments, and reviews of IRs. The inspectors reviewed licensee's self-assessments and assessments by external organizations of safety culture to determine if there were any organizational issues or trends that could impact the licensee's safety performance.

b. Assessment

The inspectors did not identify any issues that suggested conditions were not conducive to the establishment and existence of a safety conscious work environment at Clinton Power Station. Licensee staff members were aware of and generally familiar with the

CAP and other station processes, including the ECP, through which concerns could be raised. In addition, a review of the types of issues in the ECP indicated that the licensee staff members were appropriately using the CAP and ECP to identify issues. The licensee staff also indicated that management had been supportive of the CAP by providing time and resources for employees to generate their IRs.

The staff also expressed a willingness to challenge actions or decisions that they believed were unsafe. All employees interviewed noted that any safety issue could be freely communicated to supervision and safety significant issues were being corrected.

Since the beginning of 2013, various safety culture assessments had been performed by contractors, the licensee's staff, and a nuclear plant owner/operators organization. The results indicated that there were no impediments to the identification of nuclear safety issues. The inspectors reviewed these surveys and did not identify any adverse trend.

c. Observations and Findings

No observations or findings were identified.

4OA6 Management Meetings

.1 Exit Meeting

On October 15, 2015, the inspectors presented the inspection result to Mr. D. Kemper 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

M. Newcomer, Site Vice President  
T. Stoner, Plant Manager  
J. Cunningham, Maintenance Director  
C. Dunn, Training Director  
M. Friedmann, Acting Regulatory Assurance Manager  
M. Heger, Plant Engineering Manager  
N. Hightower, Radiation Protection Manager  
C. Propst, Work Management Director  
D. Shelton, Operations Support Manager  
J. Ward, Nuclear Oversight Manager

#### U.S. Nuclear Regulatory Commission

K. Stoedter, Branch Chief  
C. Phillips, Team Lead  
W. Schaup, Senior Resident Inspector  
E. Sanchez, Resident Inspector

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

#### Opened and Closed

05000461/2015007-01    NCV    Failure to Generate Issue Reports for Conditions Adverse to Quality (Section 40A2.1.b.(1).i)

#### Discussed

None

## 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

- IR 2558948; Division 1 and Division 2 DG A13 Device Obsolete; dated 09/22/15
- IR 2556367; 50.59 Evaluation Issues CL-2009-E-057 CL-2011-E-043; dated 09/17/15
- IR 2552248; NRC Questions Use of OP-CL-108-101-1003 Attachment 5; dated 09/08/15
- IR 2550937; Past Operability not Performed for Materials Near 1PL62J; dated 09/03/15
- IR 2521759; NRC Question on Testing; dated 06/30/15
- IR 2507167; Non-Compliance with CPS 1019.05; dated 05/29/15
- IR 2491175; Testing of new IA175 Valve Failed Testing Requirements; dated 04/26/14
- IR 2482186; NOS ID CR Assignments Closed with Inadequate Documentation; dated 04/08/15
- IR 2478133; NOS ID Corrective Action not Correctly Implemented; dated 04/01/15
- IR 2464585; Potential Trend: Maintenance Overdue Actions; dated 03/06/15
- IR 2464581; Potential Trend: Engineering Overdue Actions; dated 06/03/15
- IR 2453561; 1G33F046 and/or 1G33F041 Leak-by Internally Across Seat; dated 02/16/15
- IR 2449013; Div. 1 and Div. 2 RT Diff Flow Inop; dated 02/17/15
- IR 2447334; Div. 2 Diesel Generator Inop Due To Abnormal Voltage Control; dated 02/04/15
- IR 2441252; FME: Paint Chips/Other Debris Floating in Suppression Pool; dated 01/23/15
- IR 2431940; NOS ID: Floor Drains Unidentified in The RCA; dated 01/02/15
- IR 2413328; NRC NCV 2014004-03: RCIC Unacceptable Preconditioning; dated 11/17/14
- IR 2406020; NRC Resident Question about Cable Vault PBI Status; dated 11/03/14
- IR 2398273; Cable Vault Flooding; dated 10/20/14
- IR 2389422; Part 21 Event 49967 C&D Misaligned Separators in Batteries; dated 10/01/14
- IR 2386668; NOS ID: Identification and Correction of Problems Thru CAP; dated 09/26/14
- IR 1687319; Loss of Safeguards Control; dated 07/30/14
- IR 1685563; NOS ID: Adverse Trend of Vehicle Key Control Inside the PA; dated 07/25/14
- IR 1683023; Tracking of Actions with VX System Out of Service; dated 07/17/14
- IR 1674754; NRC Senior Resident Question on VX Operability; dated 06/24/14
- IR 1655919; IA Tubing is Cracked; dated 05/05/14
- IR 1640285; 028860 New TIC2602 Has Poor Temperature Compensation; dated 08/29/03
- IR 1640285; Apparent Fuel Conditioning Violation; dated 03/29/14
- IR 1620295; Part 21 Event 49813 ABB CVX-1 Relay Leaflet Error; dated 02/12/14
- IR 1615306; CPS Has Exceeded Threshold for Initiating Events – White PI; dated 01/31/14
- IR 1611216; Fuel Building Ventilation Tripped; dated 01/22/14
- IR 1597747; Discrepancy In Core Ground Test Results 0AP05E A2; dated 12/16/13
- IR 1590671; Unexpected High Heat Up Rate During Plant Startup; dated 11/27/13
- IR 1572866; Failed LLRT for 1IA175 Exceeds Administrative Limit; dated 10/16/13
- IR 1571411; Utilization of EGM 11-003 for OPDRVs; dated 10/13/10
- IR 1564126; CVX-1 Synchro-Verifier Relay Contacts Sticking; dated 09/26/13
- IR 1552494; NRC Identified Potential Violation; dated 08/30/13
- IR 1436732; 1IA02CJ Instrument Air Amplifier Small Leak on Accumulator; dated 11/06/12
- IR 1155757; Small Air Leak Upstream of 1IA966; dated 12/25/10
- IR 1104628; 1IA012B LL Clean and Inspect/Thrust Verification; dated 08/23/10
- IR 1037953; ADS High Pressure Air Charge Isolation Valve Needs Replaced; dated 03/03/10
- IR 1017713; Instrument Air Coupling Leak; dated 01/17/10

### Apparent Cause Evaluation

- ACE 2529137; Untimely Issue Report Documentation; dated 08/08/15
- ACE 2496361; Improper Work Practices Observed During SRV Installation; dated 05/27/15
- ACE 2447334; Div. 2 Diesel Generator Inop Due To Abnormal Voltage Control; dated 02/25/15
- ACE 2413328; RCIC Exhaust Drain-Pot Condensation; dated 12/12/14
- ACE 2386668; NOS ID: Identification and Correction of Problems Thru CAP; dated 10/21/14
- ACE 1604880; Electrical Testing Performed on 0AP05E & 1AP11E; dated 12/10/13
- ACE 1561495; Potential Non-Compliance with the Safe Shutdown Analysis for a Fire Outside the DG Rooms; dated 09/20/13

### Audit, Assessment and Self-Assessments

- IR 2386365; FASA – Pre NRC PI&R Inspection; dated 07/20/15
- NOS-CPS-15-04; Corrective Action Audit Report; dated 04/15/15
- IR 1538454; Clinton AOV Program Check In; dated 06/30/14
- ASSA 1621803; Chemistry OSART Readiness; dated 04/11/14
- IR 1449610;2013; Clinton Clearance and Tagging Check In Assessment; dated 11/14/13
- NOS-CPS-13-04; Corrective Action Audit Report; dated 04/17/13

### Miscellaneous

- Clinton Power Station Quarterly Roll-Up Report; dated 1Q2015
- Clinton Power Station Quarterly Roll-Up Report; dated 2Q2015
- First Quarter 2015 Coding and Analysis Report – Maintenance; dated 1Q2015
- Second Quarter 2015 Coding and Analysis Report – Maintenance; dated 2Q2015
- SLT [Senior Leadership Team] Semi-Annual Safety Culture Review for July through December 2014; dated 06/29/15
- Management Review Committee Meeting Packages; dated Various Dates
- Safety Culture Monitoring Panel Report for 1Q15; dated 07/10/15

### Operating Experience

- IR 2489986; OPEX Evaluation NRC IN 2013-13, Rev. 1; dated 04/23/15
- IR 2414147; OPEX Evaluation for NRC IN 2014-12: Crane and Heavy Lift ISS; dated 11/19/14
- IR 2386729; OPEX Evaluation for Revised IN 2014-11 (ML14149A520); dated 09/26/14
- IR 2384875; OPEX Evaluation for NRC IN 2014-11; dated 09/23/14
- IR 1627177; OPEX Evaluation, NRC Information Notice 2014-03; dated 02/27/14
- IR 1627155; OPEX Evaluation, NRC Information Notice 2014-02; dated 02/27/14

### Procedures

- PI-AA-125; Corrective Action Program (CAP) Procedure; Revision 2
- PI-AA-120; Issue identification and Screening Process; Revision 1
- PI-AA-125-1001; Root Cause Analysis Manual; Revision 1
- PI-AA-125-1003; Apparent Cause Evaluation Manual; Revision 2
- PI-AA-125-1004; Effectiveness Review Manual; Revision 0
- EP-AA-120-1006; EP Reportability-Loss of Emergency Preparedness Capabilities; Revision 3
- CPS 3214.01V001; Plant Air Valve Lineup; Revision 25f
- CPS 3214.01; Plant Air; Revision 26d

### Root Cause Evaluations

- RCE 1640285; Apparent Fuel Conditioning Violation; dated 05/14/14
- RCE 1590671; Unexpected High Heatup Rate During Plant Startup; dated 01/27/14

### Issue Reports Generated for this Inspection

- IR 2568575; Failure to ID and Document Conditions Adverse to Quality; dated 10/09/15
- IR 2568286; Tracking of Actions For Licensee Identified Violations; dated 10/07/15
- IR 2567857; Lack of Understanding Regarding Impact of Loss of AR/PR LAN; dated 10/08/15
- IR 2563071; Procedure Changes Recommended BY ACIT 1590671-53 Not Incorporated; dated 09/30/15
- IR 2562959; NRC ID NRC IN 2013-103 OPEX Evaluation Observation; dated 09/30/15

## LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ACIT	Action Tracking Item
ADAMS	Agencywide Documents Access and Management System
CA	Corrective Action
CAP	Corrective Action Program
CAPR	Corrective Action to Prevent Recurrence
CAQ	Condition Adverse to Quality
CFR	<i>Code of Federal Regulations</i>
ECP	Employee Concern Program
IA	Instrument Air
IR	Issue Report
IMC	Inspection Manual Chapter
LIV	Licensee Identified Violation
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OSART	Operational Safety Review Team
PARS	Publicly Available Records
PBI	Plant Barrier Impairment
PI&R	Problem Identification and Resolution
QATR	Quality Assurance Topical Report
SCAQ	Significant Condition Adverse To Quality
SSC	Structures, Systems or Components

B. Hanson

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In accordance with Title 10, *Code of Federal Regulations* (CFR), Part 2.390, "Public Inspections, Exemptions, Requests for Withholding," 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's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management 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 Kenneth Reimer Acting for/**

Karla Stoedter, Chief  
Branch 1  
Division of Reactor Projects

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