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

July 5, 2012

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

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000289/2012008

Dear Mr. Pacilio:

On May 25, 2012, the United States Nuclear Regulatory Commission (NRC) completed an inspection at your Three Mile Island (TMI) Unit 1 facility. The enclosed report documents the inspection results discussed with Mark Newcomer, Plant Manager, and other members of your staff.

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

Based on the samples selected for review, the inspectors concluded that Exelon personnel were generally effective in identifying, evaluating, and resolving problems. Exelon personnel identified problems and entered them into the corrective action program at a low threshold. Exelon personnel prioritized and evaluated issues commensurate with the safety significance of the problems and corrective actions were generally implemented in a timely manner.

This report documents one NRC-identified finding of very low safety significance (Green). The inspectors determined that this finding also involved a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV), consistent with Section 2.3.2 of the NRC Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Three Mile Island Nuclear 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 I, and the NRC Resident Inspector at Three Mile Island Nuclear Station.

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***/

Gordon K. Hunegs, Chief
Reactor Projects Branch 6
Division of Reactor Projects

Docket Nos.: 50-289
License Nos.: DPR-50

Enclosure: Inspection Report 05000289/2012008
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

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DATE	07/02/12	07/03/12	07/05/12		

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.:	50-289
License Nos.:	DPR-50
Report Nos.:	05000289/2012008
Licensee:	Exelon Generation Company
Facility:	Three Mile Island Nuclear Station, Unit 1
Location:	Middletown, PA 17057
Dates:	May 7 – May 25, 2012
Team Leader:	Brice A. Bickett, Senior Project Engineer
Inspectors:	Justin T. Heinly, Resident Inspector – Three Mile Island Ludwig A. Kern, Reactor Engineer Richard A. Montgomery, Reactor Engineer
Approved by:	Gordon K. Hunegs, Chief Reactor Projects Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000289/2012008; May 7 – May 25, 2012; Three Mile Island (TMI) Unit 1; Biennial Baseline Inspection of Problem Identification and Resolution. The inspectors identified one finding in the area of effectiveness of corrective actions.

This NRC team inspection was performed by three regional inspectors and one resident inspector. The inspectors identified one finding of very low safety significance (Green) during this inspection and classified this finding as an NCV. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or assigned a severity level after NRC management review. Cross-cutting aspects associated with findings are determined using IMC 0310, "Components Within the Cross-Cutting Areas." 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.

Problem Identification and Resolution

The inspectors concluded that Exelon was generally effective in identifying, evaluating, and resolving problems. Exelon personnel identified problems, entered them into the corrective action program at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, Exelon personnel appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that Exelon staff typically implemented corrective actions to address the problems identified in the corrective action program in a timely manner. However, the inspectors identified one violation of NRC requirements in the area of effectiveness of corrective actions regarding an engineered safeguards actuation system (ESAS) emergency diesel generator (EDG) block load relay.

The inspectors concluded that, in general, station personnel adequately identified, reviewed, and applied relevant industry operating experience to TMI Unit 1 operations. In addition, based on those items selected for review, the inspectors determined that Exelon's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues nor did they identify any conditions that would indicate a negative impact on the site's safety conscious work environment.

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to implement prompt corrective actions following the identification of a degraded engineered safeguards actuation system (ESAS) emergency diesel generator (EDG) block load relay. Specifically, Exelon staff did not perform a relay replacement in a timely manner to correct a condition adverse to quality commensurate with its safety significance. This resulted in an EDG block load relay failing a subsequent surveillance test on April 24, 2012. Exelon staff

entered this issue into their corrective action program as issue report (IR) 1368183 and replaced the relay on May 31, 2012.

This finding is more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that the finding was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to external initiating events. Specifically, Exelon staff's past operability evaluation affirmed the relay would have performed its safety function given the degraded relay condition that existed. This finding had a cross-cutting aspect in the area of problem identification and resolution in that Exelon staff actions were not timely in addressing an adverse trend associated with a degraded ESAS block load relay. [P.1(d)] [Section 4OA2.1.c]

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152B)

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

.1 Assessment of Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the procedures that described Exelon's corrective action program at TMI Unit 1. To assess the effectiveness of the corrective action program, the inspectors reviewed performance in three primary areas: problem identification, prioritization and evaluation of issues, and corrective action implementation. The inspectors compared performance in these areas to the requirements and standards contained in 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," and LS-AA-125, "Corrective Action Program Procedure." For each of these areas, the inspectors considered risk insights from the station's risk analysis and reviewed issue reports selected across the seven cornerstones of safety in the NRCs Reactor Oversight Process. Additionally, the inspectors attended Plan-of-the-Day, Station Ownership Committee, and Management Review Committee meetings. The inspectors selected items from the following functional areas for review: engineering, operations, maintenance, emergency preparedness, radiation protection, chemistry, physical security, and oversight programs.

(1) Effectiveness of Problem Identification

In addition to the items described above, the inspectors reviewed system health reports, a sample of completed corrective and preventative maintenance work orders, completed surveillance test procedures, operator logs, and periodic trend reports. The inspectors also completed field walkdowns of various systems on site. Additionally, the inspectors reviewed a sample of issue reports written to document issues identified through internal self-assessments, audits, emergency preparedness drills, and the operating experience program. The inspectors completed this review to verify that Exelon personnel entered conditions adverse to quality into their corrective action program as appropriate.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors reviewed the evaluation and prioritization of a sample of issue reports issued since the last NRC biennial Problem Identification and Resolution inspection completed in June 2010. The inspectors also reviewed issue reports that were assigned lower levels of significance that did not include formal cause evaluations to ensure that they were properly classified. The inspectors' review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. The inspectors assessed whether the evaluations identified likely causes for the issues and developed appropriate corrective actions to address the identified causes. Further, the inspectors reviewed equipment operability determinations,

reportability assessments, and extent-of-condition reviews for selected problems to verify these processes adequately addressed equipment operability, reporting of issues to the NRC, and the extent of the issues.

(3) Effectiveness of Corrective Actions

The inspectors reviewed Exelon's completed corrective actions through documentation review and, in some cases, field walkdowns to determine whether the actions addressed the identified causes of the problems. The inspectors also reviewed issue reports for adverse trends and repetitive problems to determine whether corrective actions were effective in addressing the broader issues. The inspectors reviewed Exelon staff's timeliness in implementing corrective actions and effectiveness in precluding recurrence for significant conditions adverse to quality. The inspectors also reviewed a sample of issue reports associated with selected NCVs and findings to verify that Exelon personnel properly evaluated and resolved these issues. In addition, the inspectors expanded the corrective action review to five years to evaluate Exelon actions related to ESAS relay degradation and emergency preparedness equipment backlog.

b. Assessment

(1) Effectiveness of Problem Identification

Based on the selected samples, plant walkdowns, and interviews of site personnel in multiple functional areas, the inspectors determined that Exelon personnel identified problems and entered them into the corrective action program at a low threshold. Exelon staff at TMI Unit 1 initiated approximately 20,000 IRs between June 2010 and April 2012. The inspectors observed supervisors at the Plan-of-the-Day, Station Ownership Committee, and Management Review Committee meetings appropriately questioning and challenging issue reports to ensure clarification of the issues. Based on the samples reviewed, the inspectors determined that Exelon staff trended equipment and programmatic issues, and appropriately identified problems in issue reports. The inspectors verified that conditions adverse to quality identified through this review were entered into the corrective action program as appropriate. Additionally, inspectors concluded that personnel were generally identifying trends at low levels. However, the inspectors identified one observation with regard to the implementation of instrument performance trending procedure requirements:

Instrument Performance Trending

Exelon procedure ER-AA-520, "Instrument Performance Trending Procedure," provides guidance to system managers to identify and initiate trend issue reports for instrument out of tolerance conditions associated with their respective systems. Further, ER-AA-520 provides guidance to site design engineering staff to evaluate trend reports for common mode failures once per operating cycle. The inspectors identified that Exelon staff did not adequately implement ER-AA-520 with regard to this biennial review conducted on emergency core cooling system and normal reactor building sump level transmitters in 2010. Specifically, the inspectors identified that the design engineering staff trend evaluation did not identify three of the four out of tolerance conditions on the level transmitters when conducting the biennial review. The inspectors identified this was due, in part, to coding of the issue reports inconsistent with the guidance in ER-AA-520. The inspectors determined that if ER-AA-520 was adequately implemented, Exelon

staff would have identified a potential adverse trend regarding these out of tolerance conditions common to these level transmitters that would have required further station evaluation.

The inspectors determined that Exelon staff did not adequately implement procedure ER-AA-520 requirements and this was a performance issue. However, the inspectors did not identify an impact on subsequent equipment performance with regard to the level transmitters as a result of the missed identification of the adverse trend in the corrective action program. Therefore, the inspectors determined that the issue was of minor significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and not subject to enforcement action in accordance with the NRC's Enforcement Policy. Exelon staff initiated IR 1369875 to address this issue.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors determined that, in general, Exelon staff appropriately prioritized and evaluated issues commensurate with the safety significance of the identified problem. Exelon staff screened issue reports for operability and reportability, categorized the issue reports by significance, and assigned actions to the appropriate department for evaluation and resolution. The issue report screening process considered human performance issues, radiological safety concerns, repetitiveness, adverse trends, and potential impact on the safety conscious work environment.

Based on the sample of issue reports reviewed, the inspectors noted that the guidance provided by Exelon corrective action program implementing procedures appeared sufficient to ensure consistency in categorization of issues. Operability and reportability determinations were generally performed when conditions warranted and in most cases, the evaluations supported the conclusion. Causal analyses appropriately considered the extent of condition or problem, generic issues, and previous occurrences of the issue. However, the inspectors identified one observation regarding station evaluation of conditions entered into the corrective action program:

Application of Technical Specification (TS) 4.0.2 for missed in-service testing (IST) surveillances

TS 4.0, "Surveillance Standards," section 4.0.2 provides direction to operators that permit implementation of a delay period for missed TS surveillances provided the risk is understood and managed during the delay period. TS 4.0.2 states, "If the surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable condition(s) must be entered." Additionally, TMI's TS Bases reiterates that applicable LCO conditions "begin immediately upon expiration of the delay period."

Exelon personnel, in February 2008, identified a number of missed IST surveillances with regard to local valve position indication checks required per TS 4.2.2, "In-Service Testing program." At that time, Exelon staff complied with direction in TS 4.0.2 and entered the delay period. Subsequently, in June 2010, Exelon staff identified several of those missed surveillances were not completed as required during the delay period. The inspectors noted that Exelon staff in June 2010 (IR 1078858) incorrectly applied a TS surveillance frequency extension (grace period) to the delay period that was exceeded. As a result, Exelon staff incorrectly determined that the TS surveillance requirements

continued to be met. The inspectors concluded, after consultation with the office of Nuclear Reactor Regulation, that Exelon should have declared the surveillances were not met and implemented applicable LCO actions as prescribed by TS 4.0.2.

The inspectors determined this performance issue was a violation of TS 4.0.2. However, the inspectors identified that Exelon staff had evaluated and documented the continuing operability of those valves specific to the containment isolation safety function. This was also supported by current leak rate tests that documented the containment isolation function of those valves were never impacted. Exelon's previous reviews also included a review of test procedures that supported the valves functioned in both the open and closed positions during those tests. The inspectors also noted all valves successfully passed the surveillance when tested. As a result, the inspectors determined that the performance issue was of minor significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and similar to minor example 4L of Appendix E, "Examples of Minor Issues." Therefore, the issue is not subject to enforcement action in accordance with the NRC's Enforcement Policy. Exelon staff initiated IR 1370187 to address this performance issue.

(3) Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were generally timely and adequately implemented. For significant conditions adverse to quality, Exelon personnel identified actions to prevent recurrence. The inspectors concluded that corrective actions to address the sample of NRC NCVs and findings since the last problem identification and resolution inspection were timely and effective. However, the inspectors identified one violation of very low safety significance regarding timeliness of corrective actions to address a degraded ESAS relay. This finding is documented in Section 4OA2.1.c. Additionally, the inspectors identified an additional observation regarding the station's implementation of untimely corrective actions:

Iodine Radiation Monitor Adverse Calibration Trend

In April 2011, Exelon staff documented (IR 1202620) an adverse calibration trend for the reactor building iodine radiation monitor (RM-A-2I) and developed corrective actions to revise the calibration procedure to capture the window voltage measurements. The window voltage data would have been used to troubleshoot and correct the adverse equipment performance. However, the inspectors identified that Exelon staff did not implement corrective actions and the action request was closed out without substantive action taken. Subsequently, RM-A-2I failed in October 2011 and again on January 15, 2012.

The inspectors determined that the failure to implement corrective actions to address a condition adverse to quality associated with the RM-A-2I performance was a violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." The function of RM-A-2I is to monitor and provide alarm indication of reactor building unidentified leakage. The inspectors determined that the corrective actions to address the adverse calibration trend were not completed and contributed to subsequent RM-A-2I failures, however the inspectors determined the ability for operations personnel to detect unidentified leakage in the reactor building was not lost or impacted. Diverse and redundant means of unidentified leakage detection remained in service. Therefore, the inspectors determined that the issue was of minor significance in accordance with the guidance in

IMC 0612, Appendix B, "Issue Screening," and not subject to enforcement action in accordance with the NRC's Enforcement Policy. Exelon entered this issue into their corrective action program under IR 1370207.

c. Findings

Inadequate Corrective Actions Associated with ESAS Relay Replacement

Introduction: The inspectors identified a finding of very low safety significance (Green) involving an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to implement prompt corrective actions following the identification of a degraded ESAS emergency diesel generator (EDG) block load relay. Specifically, Exelon staff did not perform a relay replacement in a timely manner to correct a condition adverse to quality commensurate with its safety significance.

Description: The ESAS directs actuation signals for safety-related equipment required to respond to initiating events. One function of the ESAS is to actuate the EDG start and load sequence upon a loss of offsite power, coincident with a design basis loss of coolant accident. The EDGs are block loaded using the ESAS relays timed at 5, 10, and 15 seconds to ensure adequate acceptable voltage between block loads and that system/components are actuated in the required timeframe for design basis accident mitigation.

On January 27, 2011, technicians replaced the ESAS 15 second block load relay, 62-3/RC1B, as part of the preventative maintenance program. Exelon technicians identified the relay was out of tolerance during the two subsequent performances of quarterly surveillance test 1303-4.11, HPI/LPI Logic and Analog Channel Test. The relay actuation timer required calibration prior to being declared operable and returned to service. These adverse conditions were documented by Exelon staff in the corrective action program (IR 1244015). Engineering staff conducted a trend review in accordance with ER-AA-520, "Instrument Performance Trending," and concluded that relay 62-3/RC1B was deficient and needed to be replaced based upon its short in-service life and adverse calibration trend. A work order was created to perform the relay replacement the week of April 23, 2012. Subsequently, on December 13, 2011, Exelon staff deferred the relay replacement to the week of July 23, 2012, due to insufficient resources. Furthermore, on March 9, 2012, work management documented that the work order would not be included in the July 23, 2012 work week and would need to be rescheduled again. As a result, on April 24, 2012, during the quarterly surveillance test, technicians identified that the relay was significantly out of tolerance at 24.2 seconds, 8.6 seconds above the surveillance acceptance criteria. The relay was again calibrated to within the acceptance criteria and returned to service. Exelon staff documented the additional out of tolerance and the need for the relay replacement during the next ESAS surveillance window the week of July 23, 2012.

The inspectors identified that Exelon staff did not document a technical justification or evaluation to support continued operability of the degraded relay when the relay replacement schedule was deferred in December 2011. The inspectors' review also noted it was not clear that engineering was engaged in the decision to defer the relay replacement. Additionally, the inspectors determined that Exelon staff had not performed sufficient evaluation to ensure that the relay, based on its most recent significant out of tolerance result in April 2012, would remain operable until its next

surveillance test scheduled for July 2012 based upon the adverse relay performance trend. Exelon personnel took prompt corrective actions to address the deficient relay by expediting its replacement and performed an operability determination to ensure that the relay would be able to perform its safety function up to its scheduled replacement date. The relay was replaced on May 31, 2012.

Analysis: The inspectors determined that the failure to take prompt corrective actions to address a condition adverse to quality associated with a degraded ESAS EDG block load relay was a performance deficiency that was within Exelon's ability to foresee and correct. This finding is more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that the finding was of very low safety significance (Green) because the finding was not a design or qualification deficiency resulting in a loss of functionality or operability, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. Specifically, Exelon staff's past operability evaluation affirmed acceptable voltage existed between block loads and that system/components would be actuated in the required timeframe for design basis accident mitigation given the most recent relay out of tolerance relay condition.

This finding was identified to have a cross-cutting aspect in the area of problem identification and resolution in that Exelon staff did not address an adverse trend associated with the degradation in the ESAS block load relay in a timely manner commensurate with its safety significance. [P.1(d)]

Enforcement: 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, from December 13, 2011, until the relay was replaced on May 31, 2012, Exelon failed to establish measures to assure that a condition adverse to quality associated with degraded 62-3/RC1B ESAS relay was promptly corrected commensurate with its safety significance. Specifically, Exelon did not take prompt corrective actions to replace the degraded ESAS relay upon discovery of the adverse calibration performance trend and as a result the relay failed its subsequent surveillance test on April 24, 2012. Since this deficiency was considered of very low safety significance (Green), and was entered into the corrective action program for resolution as IR 1368183, this violation is being treated as an NCV, consistent the NRC Enforcement Policy. **(NCV 05000289/2012008-01, Inadequate Corrective Actions Associated with ESAS relay replacement)**

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed a sample of issue reports associated with review of industry operating experience to determine whether Exelon staff appropriately evaluated the operating experience information for applicability to TMI and had taken appropriate actions, when warranted. The inspectors also reviewed evaluations of operating

experience documents associated with a sample of NRC generic communications to ensure that Exelon staff adequately considered the underlying problems associated with the issues for resolution via their corrective action program. In addition, the inspectors observed various plant activities to determine if the station considered industry operating experience during the performance of routine and infrequently performed activities.

b. Assessment

The inspectors determined that Exelon staff appropriately considered industry operating experience information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues when appropriate. The inspectors determined that, in general, operating experience was appropriately applied and lessons learned were communicated and incorporated into plant operations and procedures when applicable. The inspectors also observed that industry operating experience was routinely discussed and considered during the conduct of Plan-of-the-Day meetings and pre-job briefs.

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed a sample of audits, including the most recent audit of the corrective action program, departmental self-assessments, and assessments performed by independent organizations. Inspectors performed these reviews to determine if Exelon personnel entered problems identified through these assessments into the corrective action program, when appropriate, and whether Exelon initiated corrective actions to address identified deficiencies. The inspectors evaluated the effectiveness of the audits and assessments by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection.

b. Assessment

The inspectors concluded that self-assessments, audits, and other internal Exelon assessments were generally critical, thorough, and effective in identifying issues. The inspectors observed that station personnel completed these audits and self-assessments in a methodical manner to a sufficient depth to identify issues which were then entered into the corrective action program for evaluation. In general, the station implemented corrective actions associated with the identified issues commensurate with their safety significance.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

During interviews with station personnel, the inspectors assessed the safety conscious work environment at TMI. Specifically, the inspectors interviewed personnel to determine whether individuals were hesitant to raise safety concerns to their management and/or the NRC. The inspectors also interviewed the station Employee Concerns Program coordinator to determine what actions are implemented to ensure employees were aware of the program and its availability with regards to raising safety concerns. The inspectors reviewed the Employee Concerns Program files to ensure that Exelon entered issues into the corrective action program when appropriate.

b. Assessment

During interviews, Exelon staff expressed a willingness to use the corrective action program to identify plant issues and deficiencies and stated that they were willing to raise safety issues. The inspectors noted that no one interviewed stated that they personally experienced or were aware of a situation in which an individual had been retaliated against for raising a safety issue. All persons interviewed demonstrated an adequate knowledge of the corrective action program and the Employee Concerns Program. Based on these limited interviews, the inspectors concluded that there was no evidence of an unacceptable safety conscious work environment and no significant challenges to the free flow of information.

c. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On May 25, 2012, the inspectors presented the inspection results to Mark Newcomer, Plant Manager and other members of the TMI staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

Mark Newcomer	Plant Manager
Joseph Dullinger	Sr. Engineering Manager
David Atherholt	Regulatory Assurance Manager
Tracy Arnold	Corrective Action Program Manager
Keith Boring	NSSS Branch Manager
Brad Shumaker	Emergency Preparedness Manager
Eric Smikel	NOS Manager
Clint Six	Shift Operations Superintendant
Jenifer Lytle	System Engineering Supervisor
Jonathan Grove	Operating Experience Coordinator
Ed Carreras	Shift Manager
Brian Bowers	Reactor Operator
Joey Shoffner	Reactor Operator
Jen Lee	Design Engineer
Jennifer Gutshall	System Engineer
Anna Krause	System Engineer
Thomas Flemming	System Engineer
Scott Diven	System Engineer
Brad Parffit	Work Week Manager
Jeremy Burnell	System Engineer
Dana Trostel	Employee Concerns Program Coordinator
Paul Dojka	System Engineer
Tom Flemming	System Engineer
Robert Masoero	Program Engineer
William McSorley	Design Engineer
Gene Navratil	Program Engineer
Dave Reese	System Engineer
Alan Seedarsen	Program Engineer

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened and Closed

05000289/2012008-01	NCV	Inadequate Corrective Actions Associated With ESAS Relay Failure

LIST OF DOCUMENTS REVIEWED

Section 4OA2: Problem Identification and Resolution

Audits and Self-Assessments
NOSA-TMI-11-02: Security
NOSA-TMI-11-03: Emergency Preparedness
NOSA-TMI-11-04: Correction Action Program
NOSA-TMI-11-05: Design Engineering
NOSA-TMI-11-08: Operations
NOSA-TMI-12-01: Maintenance
NOSA-TMI-12-02: Security Programs
Focused Area Self Assessment – PI&R 2012 (IR 1309937)

Issue Reports *(* indicates that issue report was generated as a result of this inspection)*

0614766	0640224	0717674	0791388
0796530	0797286	0797990	0840031
0855182	0866342	0876137	0876137
0879855	0919840	0926452	0926455
0926458	0959067	0963553	0983712
0995297	0995539	1011447	1011906
1013425	1013906	1014270	1016636
1019810	1020103	1020510	1020684
1021795	1022897	1023996	1025313
1026159	1027553	1028354	1032485
1032907	1033988	1037870	1037905
1043108	1045310	1048494	1048496
1049306	1053718	1055909	1061491
1061902	1062457	1063126	1064102
1064368	1069089	1069151	1069824
1070349	1070358	1077412	1077605
1078858	1079293	1083613	1083766
1086563	1087202	1089599	1092429
1093452	1094566	1095397	1098533
1099357	1100827	1104952	1107657
1110929	1115086	1115086	1115334
1115773	1120096	1122792	1122920
1123004	1123190	1126350	1126820
1128488	1131816	1133348	1134790
1143997	1148843	1152756	1153208
1158310	1158509	1158577	1159377
1160457	1160457	1160901	1164311
1164485	1166293	1175603	1176442
1176946	1181105	1181178	1182404
1183400	1186427	1189543	1192057
1193414	1193417	1194672	1198208
1198507	1199327	1201424	1202620
1205224	1207924	1210689	1210694
1212582	1214547	1217318	1217972
1217975	1217979	1220036	1220597

1221805	1221998	1226246	1229136
1229136	1229703	1234536	1234619
1235081	1236662	1238451	1239787
1239787	1240035	1240433	1242089
1242369	1243658	1243775	1244015
1246927	1255194	1257448	1257573
1257634	1257635	1258323	1260760
1260766	1263353	1263537	1263553
1266510	1266510	1266919	1268247
1268852	1269138	1272726	1275788
1276051	1276101	1277589	1277589
1277898	1280883	1282745	1282866
1283458	1283655	1284066	1284709
1284138	1286409	1288181	1289683
1289960	1291547	1292486	1292486
1293734	1294047	1294326	1295987
1296443	1297089	1297163	1298341
1304640	1304644	1304667	1305710
1306231	1307702	1308434	1308436
1308855	1309124	1310804	1310830
1311262	1311965	1311970	1312566
1313084	1313299	1313762	1313884
1314056	1314572	1314752	1316908
1317498	1317628	1318497	1319321
1325159	1325810	1326249	1326421
1326741	1326741	1329791	1331378
1336188	1336632	1338756	1341406
1341573	1342811	1343236	1343673
1344506	1345647	1346099	1346099
1346786	1357914	1358766	1358766
1350800	1350809	1350823	1350896
1361432	1366207*	1366317*	1367151
1368055*	1368132*	1368183*	1369463*
1369482*	1369594*	1369866*	1369875*
1369960*	1369965*	1370187*	1370207*
1370410*	1370567*		

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A1727473	A1732064	A2027569	A2027573
A2042820	A2063859	A2075912	A2125443
A2129698	A2185334	A2198873	A2200067
A2200073	A2201219	A2216705	A2221515
A2221516	A2225638	A2225639	A2225640
A2239729	A2242073	A2249959	A2250164
A2252253	A2252262	A2258438	A2262877
A2262878	A2262957	A2268622	A2269716
A2271320	A2275589	A2276016	A2280147
A2281222	A2281226	A2286097	A2287260
A2287260	A2290473	A2297379	

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1107-9, SBO Diesel Generator, Rev. 67
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EI-AA-101, Employees Concern Program, Rev. 10
ER-AA-321-1007, Inservice Testing Program Corporate Technical Positions, Rev. 1
ER-TM-321-1041, TMI-1 IST Program Requirements, Rev. 1
LS-AA-115, Operating Experience Program, Rev. 17
LS-AA-120, Issue Identification and Screening Process, Rev. 14
LS-AA-125, Corrective Action Program (CAP) Procedure, Rev. 16
LS-AA-125-1001, Apparent Cause Evaluation Manual, Rev. 8
LS-AA-125-1003, Root Cause Analysis Manual, Rev. 10
LS-AA-126-1005, TMI Site Operating Experience Usage and Program Health, Rev. 5
LS-AA-127, Passport Action Tracking Management Procedure, Revision 10
ER-AA-520, Instrument and Performance Trending, Rev. 3
LS-TM-125-1001, CAP Action Management, Rev. 2
MA-AA-716-210, Performance Centered Maintenance (PCM) Process, Rev. 13
NO-AA-210, Nuclear Oversight Regulatory Audit Procedure, Rev. 2
NO-AA-10, Quality Assurance Topical Report, Rev. 86
OP-AA-108-115, Operability Determinations, Rev. 11
OP-TM-823-401, Swapping Steam Generator Compartment Fans (AH-E-4A/B), Revision 1
OP-TM-823-401, Swapping Steam Generator Compartment Fans (AH-E-4A/B), Revision 1B
WC-AA-101-1003, Right Work Preparation Process, Rev. 4
WC-AA-106, Work Screening and Processing, Rev. 13

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C2027824	M2262877	R2111971	R2111973
R2111973	R2112257	R2113148	R2113149
R2113149	R2146472	R2153392	R2153393
R2160223			

Miscellaneous
10-00598, Update for MSSV Capacity Section 3.2.3.1, Rev. 0
AD-AA-101-F-01, Document Site Approval Form, Rev. 4
AD-AA-F-03, Procedure/T&RM Validation Checklist, Rev. 1
ASME OMb Code-2000, Code For Operation and Maintenance of Nuclear Power Plants
C-1101-642-E420-007, ESAS Block Loading Timers Uncertainty Calculation, Rev. 0
EGM 12-001, Dispositioning Noncompliance with Administrative Controls Technical Specifications Programmatic Requirements that Extend Test Frequencies and Allow Performance of Missed Tests, February 24, 2012
Fire Protection Suppression system Health Report for 1st Quarter 2012

LS-AA-104-1001, 50.59 Review Coversheet Form, Rev. 3
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ML051530406, Relief Request for the Pump and Valve Inservice Testing Program, July 7, 2005
SDBD-TI-642, System Design Basis Document for Engineered Safeguards Actuation System, Rev. 6
System Health Report, System IQ, Q1-2012, Emergency Diesel Generators
System Health Report, System IQ, Q1-2012, Engineered Safeguards Actuation
System Health Report, System IQ, Q1-2012, HPI/Makeup and Purification System
System Health Report, System IQ, Q1-2012, Reactor Coolant Pumps
System Health Report, System IQ, Q1-2012, Station Blackout EDG and Support Systems
TMI-2008-001, Risk Assessment of Deficient Surveillances of Valves associated with Tech Spec 4.2.2, Rev. 0

LIST OF ACRONYMS

ADAMS	Agency-wide Documents Access and Management System
AR	Action Request
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
ESAS	Emergency Safeguards Actuation System
IMC	Inspection Manual Chapter
IR	Issue Report
IST	In-Service Testing
LCO	Limiting Condition of Operation
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
SDP	Significance Determination Process
TMI	Three Mile Island
TS	Technical Specifications