

Limerick 2

1Q/2003 Plant Inspection Findings

Initiating Events

Significance:  Sep 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Main Turbine Retrofit and Associated Change to GP-5, "Steady State Operations"

The inspectors identified a non-cited violation of 10 CFR 50.59, because Exelon staff did not analyze the effect of the increased condensate temperature on all components potentially impacted. Exelon engineering and chemistry personnel did not correctly follow procedures when conducting a 10 CFR 50.59 screening for a change to Procedure GP-5, "Steady State Operations." Consequently, Exelon did not perform a safety evaluation when required. The procedure change contributed to an unplanned reactor shutdown due to degrading condenser vacuum on July 23, 2002. This finding involved a human performance error because engineering and chemistry personnel did not correctly evaluate whether the proposed change affected the Safety Analysis Report. This finding was determined to have very low safety significance by the Reactor Inspection Findings for At-Power Situations Significance Determination Process, because although the finding contributed to an unplanned reactor shutdown, it did not affect the availability of mitigation equipment, it did not contribute to the likelihood of a loss of coolant accident initiator, and it did not contribute to the likelihood of a fire or flood event. (Section 1R17)

Inspection Report# : [2002005\(pdf\)](#)

Significance:  Jul 27, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Unit 2 Reactor Level Transient

The inspectors identified a non-cited violation of Technical Specification 6.8.1., "Procedures," because operators failed to follow procedures while placing a reactor feed pump in service, which led to a significant reactor level transient. This finding involved a human performance error because control room operators performed procedural steps out of sequence during a non-routine pump evolution. This finding was determined to have very low safety significance by the Reactor Inspection Findings for At-Power Situations Significance Determination Process because it did not contribute to the likelihood of a loss of coolant accident initiator, the unavailability of mitigation equipment, or fire and flooding events. (Section 1R14)

Inspection Report# : [2002005\(pdf\)](#)

Significance:  Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow station procedures for analyzing degraded main control room indications.

The inspector identified a finding of very low safety significance (Green) that is also a non-cited violation of Technical Specification 6.8.1, "Procedures." Exelon did not assess the operational impact of a degraded '1A' recirculation loop temperature instrument. Consequently, when operators used this degraded temperature instrument to monitor coolant temperature while in a Cold Shutdown condition, the operators did not recognize, due to erroneous temperature

indication by the degraded instrument, that the actual reactor coolant temperature had exceeded 200 degrees and resulted in an inadvertent operational condition change to a Hot Shutdown condition. This finding was determined to be of very low safety significance (Green) by the Reactor Inspection Findings for At-Power Situations because it did not increase the likelihood of a primary system LOCA, did not contribute to the likelihood of a reactor trip, and did not increase the likelihood of a fire or internal/external flood.

Inspection Report# : [2002004\(pdf\)](#)

Mitigating Systems

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Average Power Range Monitor Operability During Testing

The inspectors identified a finding of very low significance (Green) that is also a non-cited violation of 10 CFR 50, Appendix B, Criterion V "Procedures," because Exelon's procedure governing local power range monitor (LPRM) maintenance did not include provisions to ensure that the associated average power range monitor (APRM) remained operable. Specifically, the procedure did not include steps to ensure the APRM remained within the technical specification required accuracy when changing the LPRM input configuration to the APRM and at the completion of the maintenance. This finding was determined to have very low safety significance because it did not result in an actual loss of safety function, and it did not screen as risk significant due to a seismic, fire, flooding, or severe weather initiating event. (Section 1R19)

Inspection Report# : [2003002\(pdf\)](#)

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Unexpected Scram Bypass Due to a Degraded Transistor

The inspectors identified a finding of very low significance (Green) that is also a non-cited violation of 10 CFR 50, Appendix "B," Criterion XVI, because Exelon had not implemented adequate measures to preclude repetition of a significant condition adverse to quality, specifically a defective transistor in safety related protection system trip units that resulted in a portion of the reactor protection system being inoperable. This finding was determined to have very low safety significance because it did not result in an actual loss of safety function, and it did not screen as risk significant due to a seismic, fire, flooding, or severe weather initiating event. The inspectors identified that this finding involved a human performance error because the System Manager performing a review of the test data did not identify that one analog trip unit exceeded the repair criteria. (Section 4OA2)

Inspection Report# : [2003002\(pdf\)](#)

Significance:  Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to fully implement station procedure requirements for post-scrum reviews.

The inspector identified a non-cited violation of Technical Specification 6.8.1, "Procedures," because Exelon did not follow post scram station procedures during the investigation of the cause of an unexpected high reactor water level condition that led to the trip of all three reactor feedwater pumps following a Unit 1 scram on May 19, 2002. Exelon's

post scram review did not identify that the level control setpoint setdown function of the feedwater control system did not actuate which caused the unexpected high reactor water level condition. Exelon's failure to properly investigate the cause of the reactor high water level condition was determined to have very low safety significance (Green) using a Phase 3 analysis.

Inspection Report# : [2002004\(pdf\)](#)

Barrier Integrity

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: FIN Finding

Main Steam Isolation Valve Surveillance Test Preconditioning

The inspectors identified a finding of very low significance (Green) because Exelon's practice of performing preventative maintenance prior to required surveillance testing of the MSIVs masked the as-found conditions of the valves and this practice had not been evaluated by Exelon. This finding was determined to be of very low safety significance because the issue involved inadequate testing and did not degrade the MSIVs capability to perform its safety function. (Section 1R22)

Inspection Report# : [2003002\(pdf\)](#)

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Dropped New Fuel Bundles

The inspectors identified a finding of very low safety significance that is also a non-cited violation of Technical Specification 6.8.1, "Procedures," because maintenance technicians did not follow procedures while performing an inspection of new fuel bundles. This finding was determined to have very low safety significance because fuel barrier findings screen as Green. The inspectors identified that this finding involved a human performance error because technicians did not follow a maintenance procedure. Additionally, ineffective supervisory oversight, another human performance factor, contributed to this event. (Section 1R20)

Inspection Report# : [2003002\(pdf\)](#)

Emergency Preparedness

Significance: SL-IV Jun 02, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

10CFR50.54(q) violation for decreasing the effectiveness of the plan by changing EALs that address toxic gas without prior NRC approval

The licensee changed its emergency action level schemes such that there would be a reduction in declarable events as the emphasis shifted from personnel safety to equipment status. The changes were determined to be a decrease in the effectiveness of the emergency plans. Decreases in the effectiveness of an emergency plan must receive NRC review prior to implementation. The changes were implemented without NRC approval. The finding was determined to be more than minor as its significance was related to the impact it would have on the mobilization of the emergency

response organization and preclude offsite agencies from being aware of adverse conditions on site. The licensee accepted the NRC's position and entered this issue into its corrective action program (Condition Report 139997) and will change the emergency action levels back to the original wording. The implementation of the changes which decreased the effectiveness of the emergency plans, without NRC review, is being treated as a non-cited violation consistent with Section VI.A. of the Enforcement Policy, issued on May 1, 2000 (65 FR 25388). (NCV 50-277; 50-278/03-008-01 and 50-352;50-353/03-006) (Section 1EP4)

Inspection Report# : [2003006\(pdf\)](#)

Occupational Radiation Safety

Public Radiation Safety

Significance:  May 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to secure five bags of trash, marked as containing radioactive material and stored in an unrestricted area, from unauthorized removal in accordance with 10 CFR 20.1801

The inspector identified a non-cited violation of 10 CFR 20.1801 having very low safety significance. On March 11, 2002, Exelon failed to prevent five bags of trash, marked as containing radioactive material and stored in an unrestricted area within the protected area, from being transported to the Pottstown Landfill for disposal. The Pottstown Landfill was not licensed under 10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste," to dispose of radioactive materials. Exelon's failure to prevent the removal of five bags of radioactive material from the protected area to the Pottstown Landfill for disposal was determined to have very low safety significance using the Public Radiation Significance Determination Process. The finding involved radiation material control but not transportation. Public exposure was not greater than 0.005 rem, and there have not been more than 5 instances of such occurrences in the current inspection period. (Section 2PS2)

Inspection Report# : [2002003\(pdf\)](#)

Physical Protection

Miscellaneous

Significance: N/A Jun 26, 2002

Identified By: NRC

Item Type: FIN Finding

Biennial baseline inspection of Problem Identification and Resolution

The team concluded that the implementation of the corrective action program at Limerick Generating Station (LGS) was adequate. The licensee was effective at identifying problems and putting them in the corrective action process. Issues were prioritized and evaluated appropriately and in a timely fashion. The evaluations of significant problems

were of sufficient depth to identify likely root or apparent causes, and to address the potential extent of the circumstances contributing to the problem. Corrective actions that addressed the causes of problems were generally identified and implemented. However, the team identified that some elements of the corrective action program had not been fully effective in resolving component mis-positioning events and errors associated with equipment clearance and tagging. The team also noted that the licensee's oversight committees identified similar findings and that increased management attention has been directed to this area.

Inspection Report# : [2002010\(pdf\)](#)

Significance:  May 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Transfer of byproduct material to an Agreement State licensee without verifying license authorized receipt of the type, form, and quantity of byproduct material to transferred (10 CFR 30.41(c)).

The inspector identified a non-cited violation of 10 CFR 30.41 having very low safety significance. On December 21, 2001, Exelon transferred byproduct material to General Electric (GE), Wilmington, North Carolina, an Agreement State licensee, without verifying that GE-Wilmington's license authorized receipt of the type, form, and quantity of byproduct material prior to transfer, in accordance with 10 CFR 30.41, "Transfer of byproduct material," section (c). Exelon transferred 1.28 curies of Kr-85 byproduct material in the form of sealed sources to GE-Wilmington licensee that was only authorized to receive sealed sources in the amount of 0.2 curies. The nature of this particular finding is not encompassed by any existing cornerstone or Safety Significance Determination Process, but has been reviewed by NRC management and was determined to be a finding having very low safety significance. The inspector determined that there was no actual safety consequence associated with this condition in that the GE-Wilmington facility was able to appropriately receive, control, repackage, and ship the sealed sources to a licensee authorized to receive such material. (Section 40A2)

Inspection Report# : [2002003\(pdf\)](#)

Last modified : May 30, 2003