

Clinton

2Q/2010 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONTROL TRANSIENT COMBUSTIBLE MATERIALS IN ACCORDANCE WITH FIRE PROTECTION PROGRAM

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of the Clinton Power Station Unit 1 Operating License (NPF-62, Section 2.F). The licensee failed to implement the Fire Protection Program in accordance with program requirements by failing to follow approved Fire Protection Program procedures for the control of transient combustible materials. The licensee promptly removed the transient combustible materials found by the inspectors.

The inspectors concluded that this finding could be reasonably viewed as a precursor to a significant event (i.e., a fire affecting more than one train of safe shutdown equipment). Specifically, the presence of transient combustible materials in a combustible free zone could reasonably result in degradation of the fire protection defense-in-depth elements in place to prevent fires from starting and mitigate the consequences of fires. In addition, based on review of Example 4k in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," the issue would not be considered to be of minor significance because the identified transient combustibles were found in a combustible free zone required for separation of redundant trains. The finding was of very low safety significance because the items found in the combustible free zone would not be considered transient combustibles of significance as defined in IMC 0609, Appendix F, "Fire Protection Significance Determination Process," Attachment 2, "Degradation Rating Guidance Specific to Various Fire Protection Program Elements," and therefore the issue was assigned a "low degradation" rating. The inspectors concluded that this finding affected the cross-cutting area of problem identification and resolution. Specifically, the licensee missed an opportunity to identify and remove the transient combustible materials while implementing corrective actions for previous inspector identified findings involving the control of transient combustible materials.

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONTROL COMBUSTIBLE GAS CYLINDERS IN ACCORDANCE WITH FIRE PROTECTION PROGRAM

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of the Clinton Power Station Unit 1 Operating License (NPF-62, Section 2.F). The licensee failed to implement the Fire Protection Program in accordance with program requirements by failing to follow approved Fire Protection Program procedures for the control of combustible gas cylinders in the plant. The licensee promptly removed the combustible gas cylinders found by the inspectors.

The inspectors concluded that this finding was associated with the Protection Against External Factors attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the fire hazard for the affected area was increased by the uncontrolled presence of the compressed gas cylinders. In addition, based on review of Example 4k in Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," the issue would not be considered to be of minor significance because a credible fire scenario involving the identified transient combustibles could affect equipment important to safety. The finding was determined to be of very low safety significance during a Phase 3 Significance Determination Process review since the delta core damage frequency was determined to be negligible. Because a postulated fire in the area

where the combustible gas cylinders were found could affect only one train of safe shutdown equipment, the safe shutdown path was not affected by the finding. The inspectors concluded that this finding affected the cross-cutting area of human performance. Specifically, the licensee did not adequately ensure that supervisory and management oversight of work activities involving contractors supported nuclear safety.

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

FAILURE TO CORRECT INADEQUATE FWLCS RESPONSE RESULTED IN HIGH REACTOR VESSEL WATER LEVEL (LEVEL 8) SCRAM

A finding of very low safety significance was self-revealed from an event that resulted in a Unit 1 reactor scram. The licensee failed to correct a non-conforming condition with inadequate response from the feedwater level control system (FWLCS) that caused an automatic reactor scram on February 10, 2008, following an unexpected loss of a reactor recirculation pump. This resulted in a second reactor scram for the same cause on October 15, 2009, following the unexpected loss of a reactor recirculation pump. Because the FWLCS is not safety-related, no violation of regulatory requirements was identified. The FWLCS response was corrected in January 2010 and proper system response was verified by the licensee upon start up from the January-February 2010 refueling outage.

The finding was of more than minor significance because this issue was associated with the Equipment Performance attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Specifically, inadequate FWLCS response resulted in a reactor scram following the unexpected loss of a reactor recirculation pump. The finding was of very low safety significance because the issue: (1) did not contribute to the likelihood of a primary or secondary system loss-of-coolant-accident initiator, (2) did not contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment or functions would not be available, and (3) did not increase the likelihood of a fire or internal/external flooding event. The inspectors did not identify a cross cutting aspect related to this finding.

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO CORRECTLY TORQUE VALVE PACKING GLAND NUTS RESULTED IN VALVE PACKING FAILURE AND UNPLANNED PLANT SHUTDOWN

A finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," was self-revealed on September 29, 2009, when a steam leak developed from the reactor core isolation cooling (RCIC) system inboard steam isolation valve (1E51F0063) stem packing. This resulted in a plant shutdown due to a greater than 2 gallon-per-minute increase in unidentified reactor coolant system (RCS) leakage within the previous 24 hours. The licensee failed to correctly tighten the valve packing gland nuts to the as-left torque valve from original packing installation when performing scheduled maintenance to verify the as-found torque value. The licensee replaced the 1E51F0063 valve stem packing during the subsequent forced outage and tightened the gland nuts to the correct torque value.

The finding was of more than minor significance because it was associated with the Equipment Performance attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to correctly tighten the valve stem packing gland nuts resulted in stem packing failure and a subsequent plant shutdown due to exceeding the Technical Specification (TS) limit for an increase in unidentified RCS leakage. Although the finding resulted in exceeding the TS limit for RCS leakage, it was determined to be of very low safety significance during a Phase 2 Significance Determination Process review because there was no loss of mitigation capability for any safety system and therefore no resultant change in core damage frequency. Because the performance issue was associated with maintenance performed in February 2006, it did not necessarily reflect current licensee performance and no cross-cutting aspect was identified.

Mitigating Systems

Significance: SL-IV Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SATISFY 10 CFR 50.72 AND 50.73 REPORTING REQUIREMENTS THUS AFFECTING THE REGULATORY PROCESS..

The inspectors identified a Severity Level IV Non- Cited Violation of the NRC's reporting requirements in 10 CFR 50.72(a)(1), "Immediate Notification Requirements for Operating Nuclear Power Reactors," and 10 CFR 50.73(a)(1), "Licensee Event Report System." The licensee failed make a required 8-hour non-emergency notification call to the NRC Operations Center and failed to submit a required Licensee Event Report within 60 days after discovery of a condition that resulted in the plant being in an unanalyzed condition that significantly degraded plant safety and could have prevented fulfillment of the safety function of the emergency core cooling system. No immediate corrective actions were taken to address this finding; however, the licensee entered this issue into its corrective action program for evaluation.

This violation was of more than minor significance because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the Technical Specifications and the regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, the inspectors evaluated it using the traditional enforcement process. The underlying technical issue (i.e., interconnecting floor drains between the Residual Heat Removal 'A' Pump Room and the Radwaste Pipe Tunnel) was determined to be a finding of very low safety significance during a Phase 3 SDP evaluation. Consistent with the guidance in Supplement I, Paragraph D.4, of the NRC Enforcement Policy, the violation associated with this finding was determined to be a Severity Level IV Violation.

The related performance deficiency is tracked as item 2010-003-06.

Inspection Report# : [2010003](#) (pdf)

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: FIN Finding

OPERABILITY ASSESSMENT OF INSERVICE TESTING SURVEILLANCE DISCREPANCIES FOR EXCESS FLOW CHECK VALVES

The inspectors identified a finding of very low safety significance associated with the licensee's failure to evaluate the functionality of multiple excess flow check valves that had not been tested in accordance with the American Society of Mechanical Engineers / American National Standards Institute (ASME/ANSI) Code Inservice Testing requirements to establish whether the nonconforming condition warranted starting the Technical Specification (TS) action time for the suppression pool makeup (SPMU) system. In response to the inspectors' questions, the licensee subsequently performed an operability evaluation. No violation of regulatory requirements was identified because subsequent testing by the licensee determined that the valves were functional.

The finding would become a more significant safety concern if left uncorrected and was therefore more than a minor concern. Specifically, the failure to correctly evaluate a degraded/nonconforming condition potentially affecting the operability of structures, systems, or components (SSCs) required to be operable by TS could reasonably result in an unrecognized condition of an SSC failing to fulfill a safety-related function. Because the SPMU system was primarily associated with long term decay heat removal following certain design basis accidents, the inspectors concluded that this issue was associated with the Mitigating Systems Cornerstone. The finding was of very low safety significance because the issue: (1) was not a design or qualification deficiency; (2) did not represent an actual loss of safety function of a system; (3) did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time; (4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and (5) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors concluded that this finding affected the cross-cutting area of human

performance because the licensee did not have a formal process in place with adequate guidance and training to enable licensed senior reactor operators to properly and promptly evaluate operability in this instance. As a result, senior reactor operators took it for granted that utilizing the relief allowed by TS Surveillance Requirement 3.0.3 and performing a risk evaluation obviated the need to address the operability of the instrumentation supported by the excess flow check valves for the ASME/ANSI Code noncompliance.

Inspection Report# : [2010003](#) (*pdf*)

Significance: G Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Satisfy 10 CFR 50.72 and 50.73 Reporting Requirements - performance deficiency portion.

The inspectors identified a finding of very low safety significance of the NRC's reporting requirements in 10 CFR 50.72(a)(1), "Immediate Notification Requirements for Operating Nuclear Power Reactors," and 10 CFR 50.73(a)(1), "Licensee Event Report System." The licensee failed to make a required 8 hour non emergency notification call to the NRC Operations Center and failed to submit a required Licensee Event Report within 60 days after discovery on October 7, 2009, of a condition that resulted in the plant being in an unanalyzed condition that significantly degraded plant safety and could have prevented fulfillment of the safety function of the emergency core cooling system. No immediate corrective actions were taken to address this finding; however, the licensee entered this issue into its corrective action program for evaluation.

This finding was of more than minor significance because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the Technical Specifications and the regulations in order to perform its regulatory function. The inspectors assessed the significance of the underlying performance deficiency using the SDP. The underlying technical issue (i.e., interconnecting floor drains between the Residual Heat Removal 'A' Pump Room and the Radwaste Pipe Tunnel) was determined to be a finding of very low safety significance (green) during a Phase 3 Significance Determination Process evaluation. This finding affected the cross cutting area of human performance because the licensee did not use conservative assumptions in decision making while evaluating the reportability of the unanalyzed condition with respect to the reporting requirements in 10 CFR 50.72(a)(1)(ii) and 50.73(a)(1). (IMC 0310 H.1(b)) (Section 1R06.1.b.(1))

The related traditional enforcement portion is tracked as item 2010-003-01.

Inspection Report# : [2010003](#) (*pdf*)

Significance: G Jun 25, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Non Conservative Acceptance Criteria for RHR Pump Performance Testing

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety-significance for the licensee's failure to ensure adequate acceptance limits were incorporated into test procedures. Specifically, the licensee failed to properly consider instrument loop uncertainties and allowable emergency diesel generator frequency variance when determining the alert and required action values used in the inservice test procedure for testing of the residual heat removal pumps. Consequently, the acceptance criteria for the lower limits on degradation of pump head were non-conservative. This finding was entered into the licensee's corrective action program and a preliminary calculation performed by the licensee concluded that the pumps were operable.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the capability of the system to respond to initiating events to prevent undesirable consequences. This finding was of very low safety-significance (Green) because the licensee was able to demonstrate pump operability and therefore there was no loss of safety function. This finding had a cross-cutting aspect in the area of problem identification and resolution because the licensee did not thoroughly evaluate operating experience that included similar issues relating to the failure to appropriately account for instrument uncertainties in design analysis.

Inspection Report# : [2010006](#) (*pdf*)

Significance:  Jun 25, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Test Control of RHR Heat Exchangers

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety-significance for the licensee's failure to establish test conditions to assure that the 1B residual heat removal heat exchanger would perform satisfactorily in service under accident conditions. Specifically, the inspectors determined that the heat exchanger thermal performance test procedure did not assure adequate temperature differences to provide reliable test results. In addition, the most recent test was performed with lower temperature differences than those identified in plant calculations. This finding was entered into the licensee's corrective action program and a preliminary analysis performed by the licensee concluded the test results were acceptable.

The finding was more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the residual heat removal heat exchanger performance test procedure did not establish appropriate test conditions to ensure that the component would perform its required function during an accident. Also, the inspectors determined that the finding was similar to Examples 3.j and 3.k of IMC 612, Appendix E, in that there was a reasonable doubt of the operability of the component based on the most recent test conditions. The inspectors determined the finding was of very low safety significance (Green) because it 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 a seismic, flooding, or severe weather initiating event. This finding did not have a cross-cutting aspect because it did not represent current performance.

Inspection Report# : [2010006](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

INTERCONNECTING FLOOR DRAINS BETWEEN THE RESIDUAL HEAT REMOVAL 'A' PUMP ROOM AND RADWASTE PIPE TUNNEL

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria III, "Design Control," regarding the licensee's failure to correctly translate the design basis into the design of the Auxiliary Building floor drain system with appropriate margin. The inspectors identified that floor drains in the Residual Heat Removal (RHR) 'A' Pump Room and the Radwaste Pipe Tunnel were interconnected, which resulted in the plant being in an unanalyzed condition that degraded plant safety and could have prevented fulfillment of the safety function of the containment suppression pool. To address the immediate operability concern, the licensee plugged the two floor drains in the Radwaste Pipe Tunnel line to prevent communication with the floor drain system in the RHR 'A' Pump Room. An exposed vertical section of the drain line was then cut and a solid steel plate welded into the pipe per an engineering design change to permanently isolate the floor drains between the two rooms.

The finding was of more than minor significance because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the as-found configuration of the interconnecting floor drains resulted in the plant being in an unanalyzed condition that could have prevented fulfillment of the safety function of the containment suppression pool. Although the finding would represent a loss of safety function in the event of a postulated accident, it was determined to be of very low safety significance during a Phase 3 Significance Determination Process review because the delta core damage frequency was determined to be negligible since the initiating event frequency for flooding due to an RHR pump suction pipe failure was sufficiently low. Because this condition had existed since initial plant construction, the performance issue did not necessarily reflect current licensee performance and no cross-cutting aspect was identified.

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO CORRECTLY INSTALL RELAYS INSIDE OF THE DIVISION 3 DIESEL GENERATOR CONTROL PANEL

A finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," was self-revealed on September 23, 2009, when the Division 3 diesel generator (DG) was found to have had two components installed incorrectly. Electrical maintenance technicians had incorrectly replaced time delay relays K-8A and K-32 on September 24, 2007, essentially swapping the locations of the two relays. This rendered the Division 3 DG inoperable for about 2 years and resulted in a loss of safety function for the Division 3 DG and high pressure core spray system under a certain sequence of initiating events. The licensee restored the two time delay relays in the correct configuration and immediately verified that the remaining time delay relays inside the Division 3 DG Control Panel were in their proper locations.

The finding was of more than minor significance because, if left uncorrected, it would potentially lead to a more significant safety concern (i.e., the inoperability of risk-significant plant safety systems). In addition, based on review of Example 5c in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," the issue would not be considered to be of minor significance because the incorrect relays were installed in the control panel. Although the finding resulted in a loss of safety function for the Division 3 DG and high pressure core spray system, it was determined to be of very low safety significance during a Phase 2 Significance Determination Process Review considering the very limited conditions (i.e., only 45 seconds following shutdown of the engine concurrent with a design basis accident) when the Division 3 DG was incapable of performing its safety function. The resultant exposure time was estimated to be about 27 minutes during the 2-year period. The inspectors concluded that this finding affected the cross-cutting area of human performance because the licensee did not effectively communicate expectations regarding procedural compliance and, as a result, maintenance technicians did not follow their procedures by installing nonconforming components and restoring the safety system to service.

Inspection Report# : [2009005](#) (*pdf*)

Significance:  Sep 30, 2009

Identified By: Self-Revealing

Item Type: FIN Finding

INEFFECTIVE CORRECTIVE ACTIONS FOR VIBRATION INDUCED STEM/DISC SEPARATION OF FUEL POOL COOLING SYSTEM TRAIN 'A' FLOW CONTROL VALVE 1FC004A.

A finding of very low safety significance was self-revealed on May 27, 2009, when fuel pool cooling system flow control valve 1FC004A failed closed. The licensee failed to implement effective corrective actions in response to the same failure mode for the valve that occurred on November 21, 2005. This resulted in the failure of 1FC0014A once again and the subsequent loss of inventory from the containment upper pool and inoperability of the suppression pool makeup system. The licensee entered this issue into its corrective action program to investigate the cause and to identify appropriate corrective actions. No violation of regulatory requirements was identified.

The finding was of more than minor significance because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone and directly affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the May 2009 valve failure resulted in a loss of inventory from the containment upper pool and inoperability of the suppression pool makeup system, therefore impacting its availability for certain initiating events. The finding was of very low safety significance because the issue: (1) was not a design or qualification deficiency; (2) did not represent an actual loss of safety function of a system; (3) did not represent an actual loss of safety function of a single train for greater than its Technical Specification (TS) allowed outage time; (4) did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk significant; and (5) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors did not identify a cross-cutting area component related to this finding.

Inspection Report# : [2009004](#) (*pdf*)

Barrier Integrity

Significance: SL-IV Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM AN ADEQUATE 10 CFR 50.59 EVALUATION FOR CPS PROCEDURE 3711.01 THUS AFFECTING THE NRC'S REGULATORY PROCESS.

The inspectors identified a Non-Cited Violation of 10 CFR 50.59, "Changes, Tests and Experiments." The licensee failed to perform an adequate 10 CFR 50.59 evaluation and obtain a license amendment prior to implementing CPS 3711.01, "CPS [Clinton Power Station] Operations with the Potential to Drain the Reactor Vessel [OPDRV]," Revision 0. The procedure established a definition of an OPDRV for use in determining the applicability of several Technical Specification (TS) requirements while in Modes 4 and 5. The licensee failed to recognize that implementing this new procedure, in effect, constituted a change to the TS incorporated into its licensing basis, which would therefore require a license amendment pursuant to 10 CFR 50.59(c)(1)(i) and 10 CFR 50.90. No immediate corrective actions were taken to address this finding; however, the licensee entered this issue into its corrective action program for evaluation.

The finding was of more than minor significance because there was a reasonable likelihood that the change requiring a 10 CFR 50.59 evaluation would require NRC review and approval prior to implementation. Because this issue affected the NRC's ability to perform its regulatory function, the inspectors evaluated it using the traditional enforcement process. Based on the results of a modified Phase 2 SDP evaluation, this finding was determined to be of very low safety significance. Consistent with the guidance in Supplement I, Paragraph D.5, of the NRC Enforcement Policy, the violation associated with this finding was determined to be a Severity Level IV Violation.

The related performance deficiency is tracked as item 2010-003-07.

Inspection Report# : [2010003](#) (*pdf*)

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE RESULTING IN GATE SEAL LEAKAGE.

A finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," was self-revealed on January 29, 2010, when the dryer cavity gate seal depressurized during the performance of the containment and reactor vessel isolation functional surveillance procedure. When the seal lost pressure, approximately 46,500 gallons of water leaked from the dryer cavity pool into the reactor cavity. In response to the event, the licensee ensured all personnel were out of the reactor cavity, entered its radioactive spill off-normal procedure, and re-established air pressure to the dryer cavity gate seal. Subsequent investigation revealed that during the gate seal inflation procedure the proper valve operation sequence was not followed. As corrective action, the licensee revised many of its procedures and included a special brief to the refueling outage preparation for Reactor Services personnel.

The finding was of more than minor significance because the licensee's failure to correctly install the upper containment dryer cavity gate could be reasonably viewed as a precursor to a significant event and, if left uncorrected would potentially lead to a more significant safety concern (i.e., increased dose or personnel contamination). In addition, the finding was similar to Example 4c in Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," in that data recorded during installation of the dryer cavity gate seal was incorrect and resulted in backup air bottle supply pressure left outside the acceptable range. Because the dryer cavity gate seal is intended to contain highly radioactive fluids within containment, which supports the radiological barrier functions to protect plant workers and the public following serious transients or accidents, the inspectors concluded that this issue was associated with the Barrier Integrity Cornerstone. Although this event resulted in a loss of inventory from the dryer cavity pool and partial flooding of the lower reactor cavity and drywell, it was determined to be of very low safety significance because there was no loss inventory from the reactor vessel and it could not result in the loss of reactor coolant system level instrumentation. The inspectors concluded that this finding affected the cross-cutting area of human performance. The licensee did not effectively communicate expectations regarding procedural compliance in this instance and, as a result, the Reactor Services maintenance craftsman did not correctly follow the procedure by performing steps out of sequence and restoring a system to service that was incorrectly aligned. (IMC 0310 H.4(b))

Inspection Report# : [2010003](#) (*pdf*)

Significance: **G** Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Adequate 10 CFR 50.59 Evaluation for CPS Procedure 3711.01 - performance deficiency portion

The inspectors identified a finding of very low safety significance with an associated NCV of 10 CFR 50.59, "Changes, Tests and Experiments." The licensee failed to perform an adequate 10 CFR 50.59 evaluation and obtain a license amendment prior to implementing CPS 3711.01, "CPS [Clinton Power Station] Operations with the Potential to Drain the Reactor Vessel [OPDRV]," Revision 0 on January 11, 2010. The procedure established a definition of an OPDRV for use in determining the applicability of several TS requirements while in Modes 4 and 5. The licensee failed to recognize that implementing this new procedure, in effect, constituted a change to the TS incorporated into its licensing basis, which would, therefore, require a license amendment pursuant to 10 CFR 50.59(c)(1)(i) and 10 CFR 50.90. No immediate corrective actions were taken to address this finding; however, the licensee entered this issue into its corrective action program for evaluation.

The finding was of more than minor significance because there was a reasonable likelihood that the change requiring a 10 CFR 50.59 evaluation would require NRC review and approval prior to implementation. The inspectors assessed the significance of the underlying issue using the SDP. Based on the results of a modified Phase 2 SDP evaluation, this finding was determined to be of very low safety significance. The inspectors concluded that this finding affected the cross cutting area of human performance. Specifically, the licensee did not use conservative decision making to demonstrate that the proposed action did not require prior NRC approval. The inspectors noted that the licensee was aware of potential concerns regarding the new procedure prior to completing the initial 10 CFR 50.59 evaluation and again prior to revising the evaluation in response to concerns raised by the inspectors; however, the incorrect conclusion was reached in both revisions of the evaluation that the new procedure was not a change to the TS and that a license amendment was not necessary. (IMC 0310 H.1(b)) (Section 1R13.b.(1))

The associated traditional enforcement is tracked as item 2010-003-02.

Inspection Report# : [2010003](#) (*pdf*)

Significance: **G** Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO RECOGNIZE EXAMINATION LIMITATIONS FOR A CONTAINMENT PENETRATION WELD

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow procedure instructions and record examination limitations for containment pipe-to-penetration weld 1-MS-B-11. The licensee subsequently documented the failure to record the 1-MS-B-11 limited weld examination in the corrective action program. The licensee planned to submit limited containment pipe-to-penetration weld examinations to the NRC for review and approval.

The finding was of more than minor significance because, if left uncorrected, the failure to document limited weld examinations could become a more significant safety concern. Absent NRC identification, the licensee would not have submitted limited weld examinations to the NRC for approval. Further, the inspector could not determine if the NRC would approve the limited weld surface examinations without a licensee evaluation for the extent of additional coverage possible with volumetric weld examinations. This finding was of very low safety-significance based on answering "no" to each of the Phase 1 screening questions identified in the Containment Barrier column of Table 4a in Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings." Specifically, this finding did not represent an actual open pathway in the physical integrity of reactor containment. This finding has a cross-cutting aspect in the area of Human Performance, Resources because the licensee did not provide complete, accurate and up-to-date design documents (weld construction drawing) to the non-destructive examination staff. Specifically, the lack of a weld construction drawing which included the weld profile appeared to have contributed to the examination staff's failure to recognize that they had not completely examined the required weld surfaces.

Inspection Report# : [2010002](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE TEST CRITERIA IN STANDBY GAS TREATMENT SYSTEM FLOW/HEATER OPERABILITY SURVEILLANCE TEST

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings." The licensee failed to include appropriate quantitative or qualitative acceptance criteria in its surveillance test procedure for fulfilling the monthly surveillance requirement to demonstrate operability of the standby gas treatment (SGT) system as described in the Technical Specification Bases. As corrective action, the licensee revised the procedure to include acceptance criteria that system flow is normal and that no blockage, fan or motor failure, or excessive vibration is detected.

The finding was of more than minor significance because it is associated with the Procedure Quality cornerstone attribute for the Control Room and Auxiliary Building and adversely affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, by not providing appropriate acceptance criteria by which the operability of the SGT system trains could be assessed, the ability of the SGT system to collect and treat the design leakage of radionuclides from the primary containment to the secondary containment during an accident could not be assured. The inspectors did not identify a cross-cutting aspect related to this finding.

Inspection Report# : [2010002](#) (*pdf*)

Significance: SL-IV Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO UPDATE THE FINAL SAFETY ANALYSIS REPORT.

The inspectors identified a Non-Cited Violation of 10 CFR 50.71, "Maintenance of Records, Making of Reports," associated with the licensee's failure to correctly update the Updated Final Safety Analysis Report (UFSAR) when modifying Technical Specification (TS) requirements for the Control Room ventilation system during implementation of Improved Standard Technical Specifications. Specifically, the licensee failed to change the specified safety function description for the system to maintain positive pressure within the Control Room envelope with respect to adjacent areas during all operating modes except when the system is in the recirculation mode or when the system is in the maximum outside air purge mode. This directly contributed to the licensee's failure to correctly evaluate the operability of Control Room ventilation system Train 'B' when the system was unable to maintain the Control Room envelope at a positive pressure relative to adjacent areas while operating in the normal mode. Subsequent evaluation by the inspectors determined that the safety function description in the UFSAR was inaccurate and the system was operable with the degraded/nonconforming condition. The licensee entered this violation into its corrective action program to investigate the cause and to identify appropriate corrective actions.

Because the issue affected the NRC's ability to perform its regulatory function, the violation was reviewed under the traditional enforcement process; however, the underlying technical issue was evaluated using the Significance Determination Process. The finding would become a more significant safety concern if left uncorrected and was therefore more than a minor concern. Specifically, the failure to correctly evaluate a degraded/nonconforming condition potentially affecting the operability of a system, structure, or component (SSC) required to be operable by TS could reasonably result in an unrecognized condition of an SSC failing to fulfill a safety-related function. Because the Control Room ventilation system supports the radiological barrier function to protect operators inside the Control Room following certain design basis accidents, the inspectors concluded that this issue was associated with the Barrier Integrity Cornerstone. The finding was of very low safety significance because it involved only a degradation of the radiological barrier function provided for the Control Room. The inspectors did not identify a cross-cutting aspect related to this finding.

Inspection Report# : [2009004](#) (*pdf*)

Significance:  Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY IMPLEMENT REQUIREMENTS OF THE LEAKAGE REDUCTION AND

MONITORING PROGRAM.

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," regarding the licensee's failure to adequately implement periodic visual inspection requirements per procedure CPS 1019.07, "Leakage Reduction and Monitoring Program," to monitor and minimize leakage from piping systems connecting to the reactor coolant system. The inspectors also identified that the procedure itself was inappropriate to the circumstances because it did not provide for adequate and consistent performance of the piping system visual inspections and did not provide for sufficient objective quality evidence to demonstrate that the program requirements were met. The licensee entered this violation into its corrective action program to investigate the cause and to identify appropriate corrective actions.

The finding would become a more significant safety concern if left uncorrected and was therefore more than a minor concern. Specifically, the failure to adequately implement required leakage reduction and monitoring program controls to minimize leakage from reactor coolant sources outside of containment that could contain highly radioactive fluids during a serious transient or accident could reasonably result in higher doses to plant workers and higher potential offsite release levels. Because the leakage reduction and monitoring program is intended to contain highly radioactive fluids within piping systems outside containment, which supports the radiological barrier functions to protect plant workers and the public following serious transients or accidents, the inspectors concluded that this issue was associated with the Barrier Integrity Cornerstone. The finding was of very low safety significance because it involved only a degradation of the radiological barrier function provided for the Auxiliary Building. The inspectors concluded that this finding affected the cross-cutting area of human performance because the licensee did not provide adequate procedural guidance and training to enable operators to correctly perform and document piping system visual inspections to implement its leakage reduction and monitoring program. As a result, the licensee did not have appropriate objective quality evidence to demonstrate that the program requirements were met.

Inspection Report# : [2009004](#) (pdf)

Emergency Preparedness

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE EMERGENCY PLAN AUGMENTATION CALL-IN DRILLS

The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50.54(q) for the licensee's failure to follow and maintain the Emergency Plan, which meets the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR 50. Specifically, the licensee's Emergency Plan calls for the performance of periodic drills to evaluate the ability to augment its Emergency Response Organization (ERO). However, the Emergency Plan implementing procedure used for the conduct of these augmentation drills exempts certain ERO members from participation in these drills, a situation which prevents the licensee from fully demonstrating its ability to augment all the ERO positions in a timely manner. The licensee's approved Emergency Plan does not provide for such an exemption. The licensee entered the finding into the corrective action program.

The use of an implementing procedure that causes the conduct of an activity to be inconsistent with the associated requirements in the licensee's Emergency Plan results in a failure to follow and maintain the Emergency Plan and is a performance deficiency. As a result of the limitations in the procedure, the licensee failed to conduct call-in drills to demonstrate timely augmentation of ERO positions filled by skilled/technical personnel. The deficiency did not impact the NRC's regulatory process or contribute to actual safety consequences; therefore, the performance deficiency was screened using the Emergency Preparedness Significance Determination Process as a failure to comply. The deficiency was determined to be more than minor because the deficiency adversely affected the Emergency Preparedness Cornerstone objective and had the attribute associated with ERO readiness and in the area of ERO augmentation testing. The inspector evaluated the finding using the Inspection Manual Chapter 0609, Appendix B, Sheet I, "Failure to Comply" Flowchart. The inspector evaluated the finding as a degraded planning standard function since the licensee's conduct of the augmentation exercises did not include all ERO positions. The finding was determined to be of very low safety significance. The inspector determined the finding had a cross cutting aspect in the problem identification and resolution area with a component in self and independent assessments. The licensee's

augmentation call-in drills were not comprehensive to include all ERO augmentation staffing positions. (IMC 0310 P.3(a))

Inspection Report# : [2010003](#) (*pdf*)

Significance: SL-IV Nov 20, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Implementation of a Change which Decreased the Effectiveness of the Emergency Plan

The inspectors identified a NCV of 10 CFR 50.54(q) associated with 10 CFR 50.47(b)(2) because the licensee failed to obtain prior NRC approval for a change made to its emergency plan that decreased the effectiveness of the plan. Specifically, the licensee removed staffing and capabilities from the minimum on-shift emergency response staffing requirements from the Clinton Power Station Emergency Plan Annex, Section 2, Table B-1. The licensee entered this issue into their corrective action program and replaced staffing back on-shift as required by the 1998 emergency plan annex.

This finding was more than minor and of very low safety-significance using IMC 0609, Appendix B, because the finding was associated with the Emergency Preparedness Cornerstone attribute of emergency response organization readiness for minimum on shift emergency response staffing. Because the finding affected the NRC's ability to perform its regulatory function, the inspectors evaluated the significance using the traditional enforcement process. This finding was determined to be a Severity Level IV violation because the licensee failed to meet an emergency planning requirement not directly related to assessment and notification.

Inspection Report# : [2009502](#) (*pdf*)

Inspection Report# : [2010002](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : September 02, 2010