

Clinton

Initiating Events

G

Significance: Aug 21, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow procedures associated with feed water level control system surveillance testing.

Human performance and corrective action deficiencies contributed to a Non-Cited Violation of Technical Specification 5.4.1 for failing to follow procedures. This led to the unplanned automatic reactor shutdown on July 24, 2001. The finding was of very low safety significance because no complications occurred during the unplanned automatic reactor shut down and the finding did not increase the likelihood of mitigation equipment being unavailable.

Inspection Report# : [2001010\(pdf\)](#)

G

Significance: Dec 31, 2000

Identified By: NRC

Item Type: FIN Finding

Operators did not adequately control reactor vessel inventory after a reactor scram which resulted in the motor driven reactor feedwater pump tripping on high reactor vessel water level.

During operator response to a reactor scram on December 18, 2000, operators did not adequately control reactor vessel inventory prior to the motor driven reactor feedwater pump tripping on high reactor vessel water level. The inspectors reviewed this issue using the significance determination process for a transient with a loss of feedwater and determined this was of very low safety significance because all other reactor vessel level control systems were operable and functioned as designed.

Inspection Report# : [2000020\(pdf\)](#)

G

Significance: Dec 31, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Operators failed to adequately evaluate an alarming moisture separator drain tank level annunciator that resulted in a turbine trip.

During plant restart following refueling outage 7, operators did not adequately evaluate an alarming moisture separator drain tank level annunciator. As a result, high water level in the moisture separator drain tank caused a turbine trip with the reactor at approximately 25% power. The inspectors reviewed this issue using the significance determination process for a transient. Since only the initiating event cornerstone is affected and associated assumptions have no other impact than slightly increasing the likelihood of an uncomplicated reactor trip, the finding is considered to be of very low safety significance.

Inspection Report# : [2000020\(pdf\)](#)

G

Significance: Dec 31, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Operators failed to adequately control reactor vessel water level and pressure following the automatic reactor scram which resulted in a second automatic scram.

Operators failed to adequately control reactor vessel water level and pressure, while attempting to open the main steam isolation valves following the automatic reactor scram on December 18, 2000. This resulted in an automatic scram signal due to low reactor vessel water level. The inspectors reviewed this issue using the significance determination process for a transient with a loss of feedwater and determined this was of very low safety significance because the event occurred while the reactor was shut down and all control rods were already fully inserted.

Inspection Report# : [2000020\(pdf\)](#)

G

Significance: Nov 16, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

An alternate rod insertion system initiation and a manual reactor scram occurred with the reactor shutdown as a result of an inadequate maintenance procedure.

During replacement of power supplies for the alternate rod insertion (ARI) system, maintenance personnel failed to fully evaluate the impacts that re-energizing the power supplies had on the ARI initiation logic. While re-energizing the power supplies, the initiation logic sensed an ARI signal (low reactor water level). This caused the vent and drain valves to close and the scram discharge volume to fill with water. Plant operators inserted a manual scram signal before the automatic high scram discharge volume set point was reached. One Non-Cited Violation was identified for having an inadequate maintenance procedure to control this activity. This finding was evaluated using the shutdown significance determination process contained in Appendix G of IMC 0609 and was determined to have very low risk significance because it did not impact any of the five shutdown safety functions identified by NUMARC 91-06.

Inspection Report# : [2000017\(pdf\)](#)

G

Significance: Sep 30, 2000

Identified By: NRC

Item Type: FIN Finding

Human performance errors and an inadequate procedure resulted in exceeding the allowed outage time for the emergency reserve auxiliary transformer static VAR compensator.

Human performance errors and the failure to develop an adequate procedure for the emergency reserve auxiliary transformer static VAR (Volt Ampere Reactive) compensator (ERAT-SVC) surveillance test resulted in several delays during the test. These delays caused the work to not be completed within the allowed outage time. Therefore, a request for Enforcement Discretion was presented to the NRC which was formally granted on September 20, 2000 (NOED 00-6-011). The safety significance of this finding was very low because all other emergency core cooling system trains (automatic depressurization system, low pressure core spray, and low pressure core injection), emergency diesel generators, and the reactor core isolation cooling system were operable.

Inspection Report# : [2000015\(pdf\)](#)

G

Significance: May 17, 2000

Identified By: Self Disclosing

Item Type: FIN Finding

Manual reactor shutdown

A labeling discrepancy contributed to the improper isolation of a protective relay for the 4.16kV Bus 1B Reserve Feed Breaker. As a result, during functional testing, the relay actuated and caused the bus to be de-energized which ultimately resulted in a manual reactor shut down. This issue was determined to be of very low risk significance due to remaining mitigation capability and recovery potential.

Inspection Report# : [2000008\(pdf\)](#)

Mitigating Systems

Significance: N/A Dec 29, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW 10 CFR 55.59(c)(5) REQUIREMENTS FOR RETAINING LICENSED OPERATOR REQUALIFICATION PROGRAM RECORDS

The inspectors identified a Non-Cited Violation wherein the facility licensee had failed to follow the Code of Federal Regulations (CFR) Title 10, Part 55.59(c)(5), Records, requirements by failing to systematically retain all of the original or authenticated copies of the original evaluation documents during the year 2000 annual NRC examination. The finding was of very low safety significance because although the records were not the original or authenticated copies of the original, records did exist in computerized clerically transcribed documents. The computer records had not been signed, and there was no indication that they had been verified correct by the original authors. The unauthenticated documents did provide information that licensed operators, for the most part, had participated and were evaluated during the year 2000 NRC annual requalification examination. However, the inspectors determined that the finding was more than minor. Specifically, the inspectors identified at least one instance in which the transcribed information appeared to be incorrect or missing. The records failure had credible impact on safety, in that, it negatively impacted on the intent of the licensed operator requalification examination process which, in part, is to maintain a high level of confidence that licensed operators continue to possess the requisite knowledge and abilities needed to safely perform licensed duties. In addition, inadequate records keeping adversely affects the NRC's ability to regulate.

Inspection Report# : [2001015\(pdf\)](#)

G

Significance: Jan 26, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow Condition Report process for Shutdown Service Water (SX) pipe wall thinning

Corrective actions were not implemented to replace a portion of the shutdown service water (SX) system piping after pipe wall thinning was identified. The failure to take the specified corrective actions by the committed due date or to properly reevaluate the degraded condition was determined to be a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Procedures." This finding was determined to have very low safety significance because the SX system remained operable and capable of performing its' safety function.

Inspection Report# : [2001002\(pdf\)](#)

G

Significance: Jan 26, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to correct longstanding Reactor Core Isolation Cooling (RCIC) System valve degradation

Corrective actions for a longstanding deficiency with the Reactor Core Isolation Cooling (RCIC) system steam bypass valve were not effective in stopping the leakage past the valve. This finding was determined to be a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." This finding was determined to have very low risk significance because the degraded condition of the valve did not affect the operability of

the RCIC system.

Inspection Report# : [2001002\(pdf\)](#)

G

Significance: Sep 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Procedural requirements were not followed when unexpected equipment response was encountered.

Maintenance personnel failed to appropriately follow procedure instructions during testing of the Division III emergency diesel generator room fire detection system. These actions led to the emergency diesel generator being rendered inoperable. The procedure violation was treated as a Non-Cited Violation. This issue was of very low safety significance since the other divisional emergency diesel generators and all emergency core cooling systems were operable at the time of discovery.

Inspection Report# : [2000015\(pdf\)](#)

G

Significance: Jun 16, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

The licensee failed to ensure that appropriate post-modification testing was specified and accomplished for the Division I and Division III EDG output breaker circuitry modifications

The licensee failed to ensure that the appropriate post-modification testing (PMT) was specified in the Division I and Division III emergency diesel generator (EDG) output breaker circuitry modification packages and that the post-modification tests were correctly accomplished. This was required to demonstrate through component and functional testing that the modified (rewired) portions of the Division I and Division III EDG output breaker circuitry were adequately installed to accomplish the intent of the plant design changes.

Inspection Report# : [2000012\(pdf\)](#)

Barrier Integrity

G

Significance: Nov 16, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Secondary containment was inoperable for 6 minutes during fuel movements when interlock doors were opened.

Secondary containment was inoperable for 6 minutes during fuel movements when secondary containment interlock doors were inadvertently opened to move scaffolding. The inoperability was discovered when operators in the control room received an alarm indicating a loss of secondary containment vacuum. One Non-Cited Violation was identified for violating Technical Specification 3.6.4.1 which requires secondary containment operability during fuel moves. This finding was evaluated using the shutdown significance determination process contained in Appendix G of IMC 0609 and was determined to have very low risk significance because it did not meet the criteria for findings requiring a phase 2 significance evaluation.

Inspection Report# : [2000017\(pdf\)](#)

G

Significance: Nov 14, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to perform radiographic examinations of Class 2 welds.

The inspectors identified a Non-Cited Violation for the failure to perform radiographic examinations of Class 2 welds in compliance with applicable American Society of Mechanical Engineers (ASME) Code requirements. During installation testing of the 1999 Feedwater Keep Fill FW-39 modification, five radiographic examinations had recorded geometric unsharpness values which exceeded Section III and Section V ASME Code limits. Radiographic geometric unsharpness values are used to ensure that the film is of adequate quality to see defects. In addition, inspectors identified that three examinations did not meet Section V Code requirements for documentation of radiographic technique variables which can affect the image quality of the film. The safety significance of this issue was considered very low at this time, based on the absence of adverse consequences, the presence of other image quality indicators, and because the issue did not involve the system isolation valves. The failure to comply with ASME Code radiographic examination requirements could result in the failure to detect flaws within reactor coolant boundary piping, and was considered a Non-Cited Violation of 10 CFR Part 50.55a, "Codes and Standards".

Inspection Report# : [2000019\(pdf\)](#)

Emergency Preparedness

G

Significance: Aug 21, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Violation of 10 CFR 50.54(q) re. SCBA qualifications

A Non-Cited Violation of 10 CFR 50.54(q) was identified by the NRC associated with the failure to maintain personnel qualifications for self contained breathing apparatus in accordance with the Clinton Power Station Emergency Plan. The finding was of very low safety significance because the licensee maintained an adequate number of qualified personnel to maintain minimum coverage of the required positions identified in the Emergency Plan.

Inspection Report# : [2001010\(pdf\)](#)**Significance:** Jun 08, 2001

Identified By: NRC

Item Type: VIO Violation

Supplemental Inspection -- Failure to correct self-identified deficiencies disclosed through control room communications drills

This supplemental inspection was performed by the NRC to assess the licensee's evaluation associated with inaccuracies in the reporting of the Drill and Exercise Performance (DEP) performance indicator and with the performance deficiencies that resulted in a White DEP performance indicator (fourth quarter 1999 through the fourth quarter 2000). During the inspection, performed in accordance with NRC Inspection Procedure 95001, the inspector concluded that the licensee performed an adequate evaluation to determine the causes of both issues. In the case of the performance indicator errors, the licensee performed a root cause evaluation which identified a personnel error that was compounded by the lack of self-checking and verification. In addition, the licensee identified contributing causes that included the failure to provide adequate training to the emergency preparedness staff and the failure to provide adequate procedural guidance to the performance indicator data stewards and verifiers, which also applied to performance indicators in other cornerstones. The inspector concluded that the scope of corrective actions planned and implemented by the licensee appeared to address the identified causes. However, the inspector observed an additional discrepancy in the recently completed performance indicator evaluation related to drill and exercise participation. In addition, the licensee identified an error in its evaluation of one of the other emergency preparedness performance indicators that was not detected during its evaluation. These observations demonstrated weaknesses in the licensee's corrective actions and extent of condition review. The errors in the licensee's reporting of the DEP performance indicator was significant, in that the error resulted in a change of color, (i.e., Green-to-White). Consequently, a violation of 10 CFR 50.9 of more than minor safety significance was identified. Since the inaccurate reporting occurred during the period that the NRC's Enforcement Policy afforded discretion for the non-willful submittal of inaccurate performance indicator information, the NRC is exercising enforcement discretion and not citing the violation. In the case of the White DEP performance indicator, the inspector concluded that the licensee adequately assessed the deficiencies that led to the performance issues. Based on its review, the licensee attributed the White performance indicator to the high failure rate of control room communicator drills (i.e., job performance measures). The licensee identified two apparent causes for the high failure rate: (1) weaknesses in formal training; and (2) failure to meet emergency preparedness management expectations concerning the identification and correction of drill deficiencies. The inspector reviewed the licensee's corrective actions and determined that they addressed the causes identified. As a result of the licensee's immediate corrective actions, the licensee's performance returned the performance indicator to the Green band. The inspector and the licensee concluded that the high failure rate of the control room communicators resulted, in part, from inadequate corrective actions for self-identified deficiencies. Specifically, the licensee control room communicator drills were a portion of an overall annual evaluation of non-licensed operators, which included non-emergency preparedness functions. Generally, the failure of the communications segment of the evaluation did not result in a total failure of the annual evaluation. Therefore, the licensee's remedial actions were limited and were not effective in correcting the deficiencies and preventing similar failures from occurring, as required by 10 CFR 50.47(b)(14). By letter dated 08/22/01, the NRC concluded that a violation of 10 CFR 50.47(b)(14) had occurred and using the NRC's significance determination process, determined that the finding was white.

Inspection Report# : [2001009\(pdf\)](#)**Significance:** Feb 23, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

Failure to follow emergency plan for on-shift staffing

For an approximate 2-month time period, the licensee failed to meet one of the minimum on-shift emergency response organization (ERO) staffing requirements contained in Table 2-1 of the licensee's emergency plan.

Inspection Report# : [2001003\(pdf\)](#)**Significance:** N/A Apr 28, 2000

Identified By: NRC

Item Type: FIN Finding

Emergency Preparedness Performance Indicator Verification

Alert and Notification System, Drill & Exercise Participation, and Drill & Exercise performance indicators: The inspectors verified that the licensee had acceptably gathered information and reported these three performance indicators, which were in the green band, with the following minor exception. The inspectors identified a discrepancy with the licensee's initial assessment of the Drill and Exercise Performance (DEP) indicator related to the number of performance opportunities associated with a General Emergency declaration during a drill or an exercise. The licensee initially assumed that only three performance opportunities would exist rather than four as provided in NEI 99-02, but later recognized that they had misinterpreted the guidance. This did not affect the DEP performance indicator which was in the green band.

Inspection Report# : [2000009\(pdf\)](#)

G**Significance:** Oct 08, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Adequate Survey to identify and to post a High Radiation Area

A finding and associated Non-Cited Violation was identified concerning the failure to perform an adequate radiological survey, as required by 10 CFR 20.1501. Although the licensee identified this issue, the licensee did not thoroughly evaluate the cause(s) of the unanticipated radiological conditions and associated problems in the monitoring of radioactive waste activities, which have resulted in previous, similar incidents. The finding was of very low safety significance because the area radiation levels and the licensee's additional administrative barriers would have limited the potential for an individual inadvertently entering the area and receiving a radiation exposure in excess of regulatory limits.

Inspection Report# : [2001015\(pdf\)](#)G**Significance:** Aug 21, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

Failure to maintain administrative control of high radiation area keys as required by Technical Specification 5.7.2

Technical Specification 5.7.2 requires, in part, that doors to high radiation areas in which an individual could receive a deep dose equivalent greater than or equal to 1000 millirem in one hour (at 30 centimeters) shall be provided with locked or continuously guarded doors to prevent unauthorized entry and that the keys to such doors shall be administratively controlled. During October 29 - 31, 2001, the licensee failed to maintain administrative control of a key that controlled five access points to high radiation areas specified above (i.e., lost the key and failed to perform required key inventories to identify its loss), as described in CR No. 2-00-11-016. Since the inspector concluded that sufficient barriers remained to prevent an unauthorized individual from entering the affected areas and receiving an overexposure, the inspector concluded that the incident was of very low safety significance. The licensee also reported the incident to the NRC as an occurrence for the Occupational Exposure Control Effectiveness performance indicator. This is being treated as a Non-Cited Violation.

Inspection Report# : [2001010\(pdf\)](#)**Significance: SL-IV** Jul 27, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

Misuse of Radioactive Material to Alarm a PCM

Radiation protection technician used contaminated material to alarm a portal contamination monitor (PCM), while an individual was performing a contamination survey. Based on the licensee's investigation, the contamination was not placed on the individual, and the individual successfully monitored through an additional PCM. This incident will be reviewed by the NRC for potential enforcement actions. Update: On July 27, 2001, the NRC identified and forwarded to the licensee (by letter) a Non-Cited Violation of the Clinton Station Facility Operating License associated with the deliberate misuse of radioactive material by a junior contract radiation protection technician. On October 20, 2000, the technician misused radioactive material to cause an erroneous alarm on a PCM, as another individual was performing a contamination survey. The licensee identified the incident, entered the incident into its corrective action program, and implemented immediate corrective actions. Since the violation was determined to be willful, the NRC did not assign a significance to the violation using the NRC's Significance Determination Process. In accordance with the NRC Enforcement Policy, the NRC determined that the incident constituted a Severity Level IV violation of the Clinton Power Station Facility Operating License. Further, the NRC determined that the violation met the criteria necessary to disposition the violation as a Non-Cited Violation (Section VI.A.1.d of the NRC Enforcement Policy).

Inspection Report# : [2000018\(pdf\)](#)Inspection Report# : [2001010\(pdf\)](#)G**Significance:** Oct 25, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

Three individuals entered a HRA in violation of Technical Specification 5.7.1

On October 25, 2000, three individuals entered the B residual heat removal heat exchanger room (a posted high radiation area); however, the individuals were not working under a radiation work permit that allowed entry into the high radiation area and did not satisfy either of the three entry conditions of Technical Specification 5.7.1.

Inspection Report# : [2000018\(pdf\)](#)

Public Radiation Safety

G**Significance:** Dec 08, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

Inadvertent Release of Radioactive Material to Unrestricted Area

During September 2000, the licensee conducted a survey of tools, equipment, etc. outside of the restricted area (protected area and owner controlled area) and identified low-level contaminated materials that were not under constant surveillance or control. The failure to maintain constant surveillance and control of the material was a violation of 10 CFR 20.1802 and was characterized as a Non-Cited Violation. Based on the licensee's conservative annual dose assessment (about 1.56 millirem) and the inability to define the origin of each of the items, the inspector

concluded that the issue constituted one occurrence/event per the NRC Significance Determination Process (Green).

Inspection Report# : [2000021\(pdf\)](#)

Physical Protection

Miscellaneous

Significance: SL-IV Aug 18, 2001

Identified By: NRC

Item Type: VIO Violation

Falsification of Test Records by Licensee Employee

SL IV - On July 2, 2001, by separate letter, NRC issued a Severity Level IV violation of 10 CFR 50.9 for a deliberate falsification by a plant test engineer. Following investigation by the Office of Investigations, NRC determined that, on October 20, 2000, a test engineer forged another employee's signature on two test package cover sheets on by forging another employee's signature without his prior concurrence, in violation of Clinton established plant protocol and procedure.

Inspection Report# : [2001010\(pdf\)](#)

Significance: SL-IV Apr 06, 2001

Identified By: NRC

Item Type: VIO Violation

Violation of 10 CFR 50.7 "Employee Protection"

On April 6, 2001, the NRC issued the licensee a Severity Level IV Violation of 10 CFR 50.7. The NRC concluded that the licensee took adverse employment actions against an employee in the licensee's Nuclear Training Department (i.e., unfavorable 1999 performance review), in part, as a result of the employee's engagement in protected activities. In addition, the NRC learned that several training personnel may be reluctant to discuss department issues within the nuclear training department.

Inspection Report# : [2001007\(pdf\)](#)

Inspection Report# : [2001010\(pdf\)](#)

Significance: N/A Jan 26, 2001

Identified By: NRC

Item Type: FIN Finding

Assessment of Problem Identification and Resolution Performance

The team identified that the licensee appropriately entered significant plant issues into the corrective action process by initiating condition reports. Some less significant conditions adverse to quality were evaluated and corrected outside the established process. The trending program was not fully effective as a problem identification tool. Quality Assurance audits and self-assessments reviewed varied in quality. Identified issues were generally evaluated properly, although in several cases the corrective action process did not work effectively to either evaluate or prioritize issues. Current station performance issues including human performance, corrective action program, surveillance testing, and labeling indicate that long term corrective actions previously taken in these areas as restart and post-restart initiatives have not been fully effective to support sustained improvement. Corrective actions were not always fully effective or timely for some individual equipment issues and the effectiveness review process (CARE) did not always identify ineffective corrective actions. The licensee had recently recognized similar deficiencies in corrective action program implementation but had not yet fully developed or completed the corrective actions to improve these areas. The inspectors did not find any reluctance by the station employees to raise safety issues.

Inspection Report# : [2001002\(pdf\)](#)

Significance: N/A Dec 31, 2000

Identified By: NRC

Item Type: FIN Finding

Recent human performance issues have occurred which are associated with operator performance and knowledge based deficiencies that have affected plant operations and responses to transient conditions.

Recent human performance issues have occurred which are associated with operator performance and knowledge based deficiencies that have affected plant operations and responses to transient conditions. While the risk of the individual events was very low, the failure of operators to adequately control level parameters indicated a declining trend in this area. These issues could not be easily evaluated by present risk analysis methods because failures to follow procedures and maintaining management expectations were not modeled in the Clinton Individual Plant Evaluation. Therefore, the finding is characterized as having no color.

Inspection Report# : [2000020\(pdf\)](#)

Significance: N/A Nov 14, 2000

Identified By: NRC

Item Type: FIN Finding

Three procedures were not written in compliance with the applicable ASME Code.

The inspectors reviewed three special process procedures, and identified areas where all three procedures were not written in compliance with the applicable ASME Code. The procedure deficiencies had the potential to affect the ASME Code compliance of weld fabrication and nondestructive examination used on safety-related components and piping. The inspectors noted that each of the ASME Code problems identified contained elements of human performance deficiencies. The human performance aspects, while not always being the root cause of the problem, were significant contributors leading to procedure deficiencies. While the risk of the individual examples was very low, the number of deficiencies indicated a problem with incorporation of applicable ASME Code requirements into special process procedures.

Inspection Report# : [2000019\(pdf\)](#)

Significance: N/A Sep 30, 2000

Identified By: NRC

Item Type: FIN Finding

Recent events affecting plant operations contained elements of human performance deficiencies.

NO COLOR. The inspectors noted that several recent events which have affected plant operations and the operability of safety-related components or other components important to safety contained elements of human performance deficiencies. The human performance aspects, while not always being the root cause of the problem, were significant contributors leading to the events. While the risk of the individual events was very low, the number of maintenance-related incidents indicated a problem exists with the control, review, and performance of maintenance activities.

Inspection Report# : [2000015\(pdf\)](#)

Significance: N/A May 20, 2000

Identified By: NRC

Item Type: FIN Finding

Inaccurate historical data for the Safety System Functional Failure Indicator

No Color. The licensee identified a failure to submit accurate information to the NRC. The inaccurate information involved the historical data submittal for the Safety System Functional Failure Performance Indicator. The error resulted in a response band color change from Green to White for the first quarter 1999 Performance Indicator. The NRC exercised Enforcement Discretion pursuant to Section VII.B.6 of the Enforcement Policy and did not cite the violation.

Inspection Report# : [2000008\(pdf\)](#)

Last modified : March 01, 2002