Oconee 2

Initiating Events

Significance: N/A Mar 22, 2002
Identified By: NRC
Item Type: FIN Finding
Identificaton and Resolution of Problems - Baseline Inspection Results
The inspectors determined that, in general, the licensee's corrective action program was effective at identifying, evaluating, and correcting problems. The threshold for entering problems into the corrective action program was sufficiently low. Other than minor discrepancies, no problems were identified concerning the documentation of corrective action program issues. The inspectors identified a few examples where corrective actions were unclear or incomplete or were improperly closed out to other processes. Licensee reviews of operating experience information were comprehensive. Recent root cause and apparent cause evaluations were more clear, concise, and of a higher quality than those reviewed from early 2001. The results of the last comprehensive corrective action program audits conducted by the licensee and other related audits were properly entered into the corrective action program. The inspectors concluded that, although the significance of the problems resulting from human performance errors has decreased and the trend had improved in some departments, only moderate improvements have occurred for the entire site. Previous non-compliance issues documented as non-cited violations were properly tracked and resolved via the corrective action program. Based on discussions with plant personnel and the apparent low threshold for items entered in the corrective action program database, the inspectors concluded that personnel at the site felt free to raise safety concerns to their management.
Inspection Report# : 2002006*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: FIN Finding
Lack of a Detailed Engineering Review for the Generator Disconnect Switch Modification and for Inadequate Modification Monitoring/Testing
A finding was identified for the lack of a detailed engineering review for the generator disconnect switch modification and for inadequate modification monitoring/ testing. This resulted in the failure of the Unit 1 generator disconnect switch and a subsequent complicated reactor trip. Although the manufacturer informed the licensee that this was the first disconnect switch designed and built for 33,000 amp use, the licensee had not considered potential heating effects related to the isolated phase system and did not identify any post modification monitoring activities necessary to ensure proper in-service operation. Because the failure of the switch resulted in a reactor trip with a loss of normal heat removal capability, the lack of a detailed design review and post modification monitoring had an actual impact on plant safety. Based on the proper operation of the mitigation systems, this issue was considered to be of very low safety significance (Section 4OA3).
Inspection Report# : 2001003*(pdf)*

Mitigating Systems

Significance: G Jun 29, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Complete a Timely Operability Evaluation for Failure of Non-Seismic Piping in the Control Rooms
A non-cited violation was identified for a failure to promptly identify conditions adverse to quality by completing the operability evaluation following identification that non-seismic piping was located in the ceiling of the shared control room for Units 1 and 2. The licensee was developing a modification package to remove the non-seismic piping from the control room. This issue was considered to be of very low safety significance because of the low probability of piping failure and the ability of the operators to evacuate the control room and successfully shutdown Units 1 and 2 from the remote shutdown stations (Section 4OA5.1).
Inspection Report# : 2002002*(pdf)*

Significance: G May 03, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Testing of Pressurizer Code Safety Valves
Inadequate Testing of Pressurizer Code Safety Valves (Section 02.03B.(8))
Inspection Report# : 2002007*(pdf)*

Significance: G Mar 30, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Post-Maintenance Testing of the SSF Diesel Output Breaker
A non-cited violation was identified for an improper post-maintenance test of the refurbished standby shutdown facility diesel generator output breaker. The breaker was returned to service after maintenance without performing a full cycle operation of the breaker while connected to the bus. This issue was considered to be of very low safety significance because the breaker operated properly when later tested in a configuration that demonstrated its ability to function properly (Section 1R19).
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 30, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action for Potential Flooding Problem From Fire Suppression Systems in the Cable Spreading Rooms
A non-cited violation was identified for inadequate corrective action related to a the potential flooding problem that would result from actuation of the cable spreading room fire suppression system. Resolution to this licensee identified problem, which involved replacement of the open head sprinklers with a closed head design, was not completed in a prompt manner. This issue was considered to be of very low safety significance, because no fires occurred in the cable spreading rooms, therefore, the lack of adequate corrective action had no adverse affect on the plant. Additionally, sufficient margin existed in the plant response capability for a reactor coolant pump seal failure/loss of coolant accident that could occur from a fire and resulting suppression actuation in the cable spreading rooms (Section 4OA5.4).
Inspection Report# : 2001005*(pdf)*

Significance: W Mar 12, 2002
Identified By: NRC
Item Type: VIO Violation
Inadequate Corrective Actions in Response to a Lack of Mitigation Capabilities for a Potential Auxiliary Building Flood
Contrary to 10 CFR 50, Appendix B, Criterion XVI, from approximately December 1995 until April 2001, a condition adverse to quality was not promptly corrected following the identification of conflicting information within the Final Safety Analysis Report regarding the high pressure service water (HPSW) system in the auxiliary building being filled and pressurized with water verses a dry system. A rupture of the HPSW line in the auxiliary building would cause flooding and could disable safety related equipment. The lack of mitigation capabilities for an auxiliary building flood represented a condition adverse to quality. The licensee identified this condition during a design basis reconstitution effort in specification OSS-0254.00-00-3007, dated December 1, 1995, and in PIP O-96-00421, dated February 29, 1996, and again in PIP O-98-3017, dated October 15, 1998. As a result, the licensee failed to implement and maintain in effect all provisions of the NRC-approved fire protection program as required by Condition 3.D of the Oconee facility operating licenses, in that the licensee did not assure that a rupture of the fire suppression system in the auxiliary building would not significantly impair safety related equipment. [NOTE: Having been dispositioned as an "old design issue" in accordance with IMC 0305, this White finding will not be used in consideration of Oconee's overall performance in the Action Matrix.]
Inspection Report# : 2002011*(pdf)*

Significance: N/A Mar 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Update the FSAR Regarding Portions of the HPSW Piping in the Auxiliary Building
Contrary to 10 CFR 50.71(e), the licensee failed to update the FSAR regarding portions of the HPSW piping in the Auxiliary Building. [NOTE: Per the ROP, this type of issue is not evaluated through the SDP; but rather, it is to be evaluated in accordance with the guidance in Section IV.A.3 of the NRC Enforcement Policy. Accordingly, the NRC determined that this violation should be characterized at Severity Level IV due to its low safety significance and because the particular regulatory process was not significantly impeded. Additionally, it was also determined that this violation should be non-cited in accordance with Section VI.A.1 of the NRC's Enforcement Policy.]
Inspection Report# : 2002011*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Stroke Time Testing of the Emergency Feedwater Control Valves
A non-cited violation was identified for an inadequate procedure used for stroke testing emergency feedwater control valves. The procedure preconditioned the valves by opening them from their normally closed position before the actual stroke time testing was performed. This issue was considered to be of very low safety significance because there has been no indication that any of the emergency feedwater control valves were failing to stroke properly or that repairs were necessary. (Section 1R22.2)
Inspection Report# : 2001004*(pdf)*

Significance: G Oct 05, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure Control Room Doors Would Open to Relieve Pressure

The inspectors identified a non-cited violation of 10CFR50, Appendix B, Criterion III, Design Control for the failure to ensure the Unit 1 and 2 control room doors were able to relieve pressure during a tornado event. The safety significance of the inability of the control room doors to provide pressure relief was evaluated by the licensee and determined to be very low. The licensee concluded that the walls were capable of withstanding the differential pressure caused by a tornado without the doors. The inspectors reviewed the licensee's evaluation and agreed there was not a loss of function. Since there was no loss of function the issue was of very low safety significance (Section 02.04).
Inspection Report# : 2001009*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: FIN Finding
Improper Scaffold Installation that Blocked the Closure Path for two Condenser Waterbox Outlet Valves on Unit 3
A finding was identified for improper scaffold installation that blocked the closure path for two condenser waterbox outlet valves on Unit 3. The ability for these valves to close is part of the turbine building flood mitigation strategy. This finding was considered to have a credible impact on plant safety because these valves are credited to close for mitigation of a turbine building flood. Based on a phase 2 screening performed by the Region II senior reactor analyst, which considered the failure of both valves to close, this issue was determined to be of very low safety significance. The duration of the improper scaffold installation and the availability of mitigating systems to respond to a turbine building flood were key considerations in the review (Section 1R06).
Inspection Report# : 2001003*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow an Engineering Procedure Results in Unit 2 Exceeding Licensed Reactor Power Level
The inspectors identified a non-cited violation for failure to follow an engineering procedure, which resulted in exceeding the licensed reactor thermal power on Unit 2 for approximately 14 hours. Based on operation for greater than 12 hours above licensed reactor thermal power and for operating at a power level which reduced the 2 percent uncertainty margin assumed in the accident analysis, this finding had a credible impact on safety. The inspectors concluded that because the reactor thermal power operation had not exceeded the 102 percent power assumed in the accident analysis, this issue had very low safety significance (Section 1R15).
Inspection Report# : 2001003*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Meet the Surveillance Requirements of SR 3.8.1.9.a for Testing of the Keowee Hydro Units
A non-cited violation was identified for failure to meet the Technical Specifications (TS) surveillance requirements of SR 3.8.1.9.a for testing of the Keowee hydro units. Due to an overshoot problem related to governor control, the TS required frequency of 57-63 cycles in less than 23 seconds could not be achieved. The potential damage to safety related equipment that could result from an over-frequency condition on the Keowee hydro units had a credible impact on plant safety. The inspectors concluded that redundancy in equipment not initially loaded onto the electrical busses and other mitigation systems unaffected by the overshoot, provided core damage protection. Consequently, this issue was considered to be of very low safety significance (Section 1R22.2).
Inspection Report# : 2001003*(pdf)*

Significance: G Jun 30, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to Remove a Ground Strap From Safety-Related Bus 2TD as Required by Maintenance Directive 4.4.13, ONS Maintenance and Modification Work Practices for Equipment Configuration Control, Revised
TS 5.4.1 requires written procedures be established, implemented and maintained covering the procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A , February 1978. Item 1.j. of Regulatory Guide 1.33, Revision 2, Appendix A requires an administrative procedure for jumper control. On May 10, 2001, the licensee failed to remove a ground strap from safety-related bus 2TD in violation of Maintenance Directive 4.4.13, ONS Maintenance and Modification Work Practices for Equipment Configuration Control, Revised August 14, 2000, as described in the licensee's corrective action program reference PIP O-01-01721 (Green).
Inspection Report# : 2001002*(pdf)*

Significance: G Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Emergency Operating Procedures Inadequate Under Certain Single Failures
10 CFR 50, Appendix B, Criterion III, "Design Control," requires in part that applicable regulatory requirements and design bases be correctly translated into procedures. 10 CFR 50.46(d) requires an Emergency Core Cooling System that meets the general requirements of Criterion 35 of Appendix A. Appendix A requires an Emergency Core Cooling System capable of withstanding a single failure and still accomplish the system's safety function. As of September 23, 1999, the operation of the Emergency Core Cooling System as directed by the Emergency Operating Procedures was unable to perform its safety function given certain single failures. These single failures and the licensee corrective actions are more fully described in Licensee Event Report 50/269/99-07 (Sections 40A3.4 and 40A7).
Inspection Report# : 2000008*(pdf)*

Significance: W Mar 23, 2001
Identified By: NRC
Item Type: VIO Violation
Failure to Promptly Correct Tornado Mitigation Procedures to Ensure the Station Auxiliary Service Water Pump Could be Aligned Within 40 Minutes of a Design Basis Tornado
[Event date was changed to recognize this item was first identified on 3/23/01 and the four quarter exposure period started on that date] In a letter dated July 18, 2001, subsequent to the licensee's decline for a Regulatory Conference, the NRC informed the licensee of its final significance determination for Apparent Violation (AV) 50-269,270,287/01-08-06: Failure to Promptly Correct the Inability to Align Station Auxiliary Service Water Within 40 Minutes of a Tornado Event. Specifically, the licensee was told that the issue described in the AV was a finding of low to moderate safety significance, which also represented a violation of TS 5.4.1 and 10 CFR 50, Appendix B, Criterion XVI. As such, the letter issued a Notice of Violation associated with a "White" SDP finding (EA-01-125). Accordingly, the AV was administratively closed, and for tracking purposes the recognized violation (VIO) and associated White finding were identified as VIO 50-269,270,287/01-03-03: Failure to Promptly Correct Tornado Mitigation Procedures to Ensure the Station Auxiliary Service Water Pump Could be Aligned Within 40 Minutes of a Design Basis Tornado (Section 4OA5.2). VIO 01-03-03 and the associated White finding were subsequently closed during a supplemental inspection per IP 95002 (IR 50-269,270, 287/01-09).
Inspection Report# : 2001003*(pdf)*
Inspection Report# : 2001009*(pdf)*

Significance: G Mar 23, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Enter Issue of Steam Generator Tube Stresses Resulting From Use of the Station ASW Pump into the Corrective Action Program and Perform Required Operability Evaluation
A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified for failure to enter a condition adverse to quality into the corrective action program and failure to perform an operability evaluation such that the full scope of required corrective action was not addressed. Specifically, the use of the station auxiliary service water (ASW) pump would result in substantially exceeding the vendor limits on steam generator tube-to-shell differential temperature. This condition, which would result in increased stresses on the tubes, was identified by licensee engineers in about September 2000. However, the licensee had not entered the condition into the corrective action program and had not performed an operability evaluation. This violation was of more than minor significance because it had a credible impact on safety, in that the licensee's lack of an operability evaluation contributed to their inappropriate delay in revising the emergency operating procedures for aligning the station ASW pump to mitigate a tornado event. Since the licensee concluded on March 21, 2001, that the station ASW pump was operable (i.e., could perform its design basis function), this issue was determined to have very low safety significance (Section 4OA2.a.(2).2).
Inspection Report# : 2001008*(pdf)*

Significance: G Mar 23, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Conduct Appropriate Post-Maintenance Testing on Unit 2 Reactor Trip Breaker CB-1
A non-cited violation of 10 CFR 50, Appendix B, Criterion XI, was identified for failure to conduct appropriate post-maintenance testing on Unit 2 reactor trip breaker CB-1 before returning it to service on March 6, 2001. Having failed to close after a shunt trip test, maintenance personnel performed corrective action on the breaker (i.e., partially racking it out and in) without any written authorization or instructions, and made no record in the completed surveillance procedure of the breaker failing to close or of the breaker being partially racked out. By performing corrective actions without written authorization or documentation of the breaker failure, maintenance personnel circumvented the work control process; thereby precluding the possible recognition for the need of a subsequent retest. In response to a subsequent Problem Investigation Process report, licensee engineers incorrectly concluded that the breaker was operable without further testing. This violation was more than minor because of the credible impact on safety by returning the reactor trip breaker to service without an adequate post-maintenance test to demonstrate its capability to trip when called upon. Because the breaker operated correctly during a subsequent retest prompted by this inspection, this issue was determined to have very low safety significance (Section 4OA2.c.(2).3).
Inspection Report# : 2001008*(pdf)*

Significance: N/A Mar 22, 2001
Identified By: NRC
Item Type: VIO Violation
Inadequate 10 CFR 50.59 Safety Evaluation Associated With Revising UFSAR Section 3.2.2 to Remove the Spent Fuel Pool as a Suction Source for a High Pressure Injection Pump After Certain Tornadoes
10 CFR 50.59 (a)(1) (as revised January 1, 1999) states in part, that the licensee may make changes in the facility as described in the safety analysis report without prior Commission approval, provided the proposed change does not involve an unreviewed safety question (USQ). 10 CFR 50.59 (a)(2) states, in part, that a proposed change involves an USQ if the probability of occurrence or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased. The Updated Final Safety Analysis Report (UFSAR) Section 3.2.2, System Quality Group Classification, states, in part, that a sufficient supply of primary side makeup water is assured during a tornado

initiated loss of offsite power by several sources. Included in these sources is a high pressure injection (HPI) pump taking suction from the spent fuel pool (SFP). UFSAR Section 3.2.2 further states that protection against a tornado is an Oconee design criterion, and that capability is provided to safely shut down all three units, in that, after a tornado, normal shutdown systems will remain available or alternate systems will be available to allow shutdown of the plant. Contrary to the above, on August 28, 2000, the licensee completed a 10 CFR 50.59 safety evaluation to revise UFSAR Section 3.2.2 and delete the SFP as a suction source for the HPI pump after certain tornadoes, thereby increasing the probability of the malfunction of equipment important to safety. This resulted in an USQ for which the licensee did not have prior Commission approval. This item was considered to be of very low risk significance since the flowpath was not deleted from service and plant procedures for using the flowpath were not changed. Based on the very low risk significance associated with this issue, this was identified as a cited Severity Level IV Violation (Section 02).
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions on BWST Level Instrument Heat Trace
A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, was identified for failure to implement timely corrective actions following freezing of a borated water storage tanks (BWST) level sensing line in 1996. A failure of both heat trace circuits with non-functioning alarms allowed this condition to occur. The licensee has not implemented the identified corrective actions to reactivate the heat trace alarm circuits for BWST level sensing lines. Because no BWST level instrument sensing lines have frozen since the 1996 occurrence and the heat trace circuits for the BWST level instruments were operating, the inspectors determined that this issue was of very low safety significance (Section 1R01).
Inspection Report# : 2000007*(pdf)*

Significance: N/A Nov 03, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Update the UFSAR and TS Bases to Include SSF Equipment Interdependencies That Affect Operability
The inspectors identified a non-cited violation for failure to update the Updated Final Safety Evaluation Report and Technical Specification Bases to include standby shutdown facility equipment interdependencies that affect operability. (Section 1R21.141)
Inspection Report# : 2000012*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate Flammable Material Use in the Unit 2 East Penetration Room
The inspectors identified a non-cited violation of Paragraph 3.E of the Oconee Operating License for failure to follow the approved fire protection plan procedures when cleaning the floor in the Unit 2 east penetration room on September 15, 2000, with a flammable paint thinner. The licensee failed to evaluate and control the use of the flammable paint thinner before cleaning the floor with it, which constituted a degradation in the fire protection defense-in-depth strategy to prevent fires. This issue was determined to have very low safety significance because a fire in this area would not affect redundant safe shutdown functions (Section 1R05.2).
Inspection Report# : 2000006*(pdf)*

Significance: N/A Sep 30, 2000

Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to Adequately Perform Procedure When Isolating SSW Header
The inspectors identified a non-cited violation for failure to adequately perform the valve alignment procedure for the Siphon Seal Water Header B on August 10, 2000. Operators signed that the procedure was completed even though they did not actually verify the position of the valves in the procedure, did not perform the procedure in sequence, and left four valves in a position not called for by the procedure. This issue was determined to have minimal safety significance because the associated header was isolated by red tags (Section 1R13.2).
Inspection Report# : 2000006*(pdf)*

Significance: G Sep 30, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedures for Operation and Maintenance of the Control Room Chillers
A non-cited violation of Technical Specification 5.4.1 was identified for failure to provide an appropriate procedure for monitoring oil levels and refrigerant levels in the control room chillers. This issue was considered to have very low safety significance because the failure only resulted in the chillers being out of service for a short period of time with only a slight increase in control room temperature (Section 1R14.2).
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failures of RCP Oil Collection System to Collect Oil
A non-cited violation of 10 CFR 50, Appendix R, was identified for reactor coolant pump 1B1 and 2A1 oil collection systems not being capable of collecting lube oil from all leakage locations in August 1998 and June 1999, respectively. This issue was determined to have very low safety significance, because adequate fire detection equipment was installed in the associated reactor buildings and the arrangement of safety-related equipment was such that the likelihood of a reactor coolant pump oil fire affecting any safety systems was minimal (Section 1R05.3).
Inspection Report# : 2000005*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report Conditions Outside of Appendix R Design Basis
A non-cited violation of 10 CFR 50.72 and 50.73 was identified for failure to report to the NRC conditions outside of the design basis, involving instances of reactor coolant pump 1B1 and 2A1 oil collection system leaks in August 1998 and June 1999, respectively (Section 1R05.3).
Inspection Report# : 2000005*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Work Control Procedures
The inspectors identified a non-cited violation of Technical Specification 5.4.1 concerning a failure to follow work control procedures on June 26, 2000, for delaying planned maintenance on Unit 3 Standby Breaker S1-3 and

performing preventive maintenance out of sequence. This resulted in an increased likelihood of an initiating event while one of the emergency power supplies was degraded. This issue was determined to have very low safety significance due to the low probability of actually causing an initiating event and that the emergency power supplies were not completely lost (Section 1R13).
Inspection Report# : 2000005*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Operation At Power Results in Inoperable Reactor Protection System Trips
The inspectors identified a non-cited violation of Technical Specification 5.4.1 for an inadequate operating procedure that was used during Unit 2 power escalation on April 19, 2000. Specifically, because the operating procedure did not prohibit it, operators continued to increase Unit 2 reactor power after nuclear instrumentation became greater than 2 percent non-conservative. This resulted in reactor protection system trips for nuclear overpower, reactor coolant pump to power, and nuclear overpower flux/flow imbalance becoming inoperable. This issue was determined to have very low safety significance in that other reactor trip functions were available to protect the reactor core (Section 1R14.2).
Inspection Report# : 2000005*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Past EFW System Design Was Not Functional for a Main Feedwater Line Break and Was Not Reported or Adequately Corrected
On April 25, 2000, a predecisional enforcement (EA 98-543) conference was held to discuss seven apparent violations (EEIs) related to the emergency feedwater (EFW) system design. The apparent violations were identified prior to the April 1, 2000, implementation of the Revised Oversight Process (ROP) and were therefore dispositioned under the previous enforcement policy. The NRC concluded that the issues described in the seven apparent violations represented five violations of NRC regulations. Also, the NRC applied enforcement discretion and risk mitigation considerations in concluding that none of the five violations would be cited. No colors were assigned to the violations. This non-cited violation, involved the failure to implement the requirements of 10 CFR 50, Appendix B, Criterion III, Design Control; Criterion XVI, Corrective Action; and the reporting requirements of 10 CFR 50.72 and 10 CFR 50.73. In 1979, DEC performed a modification to the EFW system of Units 1, 2 and 3 (modification ON 1,2,3-1275). However, the modification left EFW valves C-187 and C-176 designed to open on a low condenser hotwell level that would result from a main feedwater line break (MFLB), consequently draining the Upper Surge Tank (UST) water to the condenser hotwell in about two minutes. Since the design of the EFW system was such that all three EFW pumps would automatically start and take suction from the UST, the result would be loss of the EFW system flow when the pump suction water was lost. (Section 4AO6.2)
Inspection Report# : 2000005*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Insufficient Water Sources for EFW System
On April 25, 2000, a predecisional enforcement (EA 98-543) conference was held to discuss seven apparent violations (EEIs) related to the emergency feedwater (EFW) system design. The apparent violations were identified prior to the April 1, 2000, implementation of the Revised Oversight Process (ROP) and were therefore dispositioned under the previous enforcement policy. The NRC concluded that the issues described in the seven apparent violations represented five violations of NRC regulations. Also, the NRC applied enforcement discretion and risk mitigation considerations in concluding that none of the five violations would be cited. No colors were assigned to the violations.This non-cited

violation involved the adequacy of the design basis water sources which are relied upon to supply water to the steam generators in the event of a MFLB. UFSAR Section 10.4.7.1 states the design basis requirements of the EFW system: "Sufficient redundancy and valving are provided in the design of the EFW piping system with isolation and cross-connections allowing the system to perform its safety-related function in the event of a single failure coincident with a secondary pipe break and the loss of normal station auxiliary AC power". UFSAR Section 10.4.7.1.7 states that for a MFLB upstream of the isolation check valve, the resulting transient would have the same response as a loss of main feedwater. UFSAR Section 10.4.7.1.10 states that for the cooldown part of a loss of main feedwater transient, the feedwater inventory requirements are "well within the available hotwell and upper surge tank capacity." In the case of a MFLB upstream of the isolation check valve, the plant design is such that the contents of the condenser hotwell would be lost out the break. Consequently, once the UST inventory is depleted (in about one hour and prior to reaching conditions to initiate shutdown cooling), the affected unit's EFW system pumps would no longer have an available suction water source. (Section 4AO6.2)
Inspection Report# : 2000005*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate EFW System Seismic Boundary
On April 25, 2000, a predecisional enforcement conference (EA 98-543) was held to discuss seven apparent violations (EEIs) related to the emergency feedwater (EFW) system design. The apparent violations were identified prior to the April 1, 2000, implementation of the Revised Oversight Process (ROP) and were therefore dispositioned under the previous enforcement policy. The NRC concluded that the issues described in the seven apparent violations represented five violations of NRC regulations. Also, the NRC applied enforcement discretion and risk mitigation considerations in concluding that none of the five violations would be cited. No colors were assigned to the violations. This non-cited violation involved a 1989 modification to valve C-187 which failed to establish an adequate EFW system seismic boundary, as required by UFSAR Section 3.2 and 10 CFR 50, Appendix B, Criterion III. This 1989 modification failed to implement the seismic design basis requirement that during a seismic event the UST would be protected against a break in a non-seismic secondary pipe to assure that the safety function of the EFW system would not be lost. (Section 4AO6.2)
Inspection Report# : 2000005*(pdf)*

Significance: G Apr 07, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to Be Able to Open Valves LP-15 and 16 Within 15 Minutes Following a LOCA (4OA1.6)
A non-cited violation was identified for failure to be able to open Low Pressure Injection valves LP-17 and 18 within the required time constraints necessary to meet Technical Specification 4.6.1.k. (Section 4OA1.6).
Inspection Report# : 2000004*(pdf)*

Barrier Integrity

Significance: N/A Jun 30, 2001
Identified By: Licensee
Item Type: FIN Finding
A violation of Technical Specifications was identified for exceeding reactor coolant system pressure boundary leakage limits due to cracks in alloy 600 control rod drive mechanism
A violation of Technical Specifications was identified for exceeding reactor coolant system pressure boundary leakage

limits due to cracks in alloy 600 control rod drive mechanism and thermocouple reactor head penetration nozzles. The leakage existed for an extended period of time prior to its discovery; however the licensee's leak detection practices were adequate and would not have been expected to identify the small amount of leakage during plant operation. Based on the conclusion that the violation was not avoidable by reasonable licensee quality assurance measures and management controls, the NRC is refraining from issuing enforcement action in accordance with section VII.B.6 of the NRC Enforcement Policy. There was minimal consequence to this condition because the leak rates were below 1 gallon per minute. The potential safety consequence of circumferential cracking is currently being evaluated by the NRC as a generic problem (Section 1R08.2).
Inspection Report# : 2001002*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Compatibility and Suitability of Materials Prior to Use on Containment Purge Valves
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, for failure to evaluate the compatibility and suitability of materials, used to help seal the containment purge valves, prior to installation and use of the materials on the containment purge valves. This issue was determined to have very low safety significance in that the valves were tested prior to operation and again prior to the start of the refueling outage and no increase in leakage or degradation was identified (Section 1R17.2).
Inspection Report# : 2000005*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to Perform Adequate Survey Results in Discrete Radioactive Particle Being Released Offsite
10 CFR 20.1501 requires licensees to perform surveys that are reasonable under the circumstances to evaluate concentrations or quantities of radioactive material. The licensee failed to perform adequate surveys resulting in a discrete radioactive particle being released offsite in the inner sole of a worker's shoe on or about November 29, 2001. The issue is in the licensee's corrective action program as PIP O-01-05007 (Green).
Inspection Report# : 2001004*(pdf)*

Public Radiation Safety

Physical Protection

Significance: G Jun 30, 2001
Identified By: NRC
Item Type: FIN Finding
The inspectors identified that the licensee failed on several occasions to detect the contractors conducting tests of the protected area exterior intrusion detection system
The inspectors identified that the licensee failed on several occasions to detect the contractors conducting tests of the protected area exterior intrusion detection system during an inspection conducted on June 5 - 8, 2000. This finding was determined to be of very low significance because no intrusion occurred and there was not two or more similar findings in four quarters (Section 4OA5.1).
Inspection Report# : 2001002*(pdf)*

Significance: G Jun 30, 2001
Identified By: NRC
Item Type: FIN Finding
The licensee failed to interdict the intruders before they gained access to vital area during exercises during conducted on June 5 - 8, 2000,
The inspectors identified that in one of four exercises during an inspection conducted on June 5 - 8, 2000, the licensee failed to interdict the intruders before they gained access to vital areas. This finding was determined to be of very low significance because there was not a loss of a full target set and there was not two or more similar findings in four quarters (Section 4OA5.2).
Inspection Report# : 2001002*(pdf)*

Miscellaneous

Significance: N/A Jun 30, 2001
Identified By: NRC
Item Type: FIN Finding
One substantive cross-cutting issue was identified in the area of human performance.
One substantive cross-cutting issue was identified in the area of human performance. From April 13, 2000, through June 30, 2001, lack of attention to detail has resulted in two events, rendered safety-related equipment inoperable five separate times, and resulted in two other instances with the potential to cause events or make safety-related equipment inoperable (Section 4OA4).
Inspection Report# : 2001002*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
EFW System Single Failure Vulnerability and Inadequate 10 CFR 50.59 Safety Evaluation
On April 25, 2000, a predecisional enforcement (EA 98-543) conference was held to discuss seven apparent violations (EEIs) related to the emergency feedwater (EFW) system design. The apparent violations were identified prior to the April 1, 2000, implementation of the Revised Oversight Process (ROP) and were therefore dispositioned under the previous enforcement policy. The NRC concluded that the issues described in the seven apparent violations represented five violations of NRC regulations. Also, the NRC applied enforcement discretion and risk mitigation considerations in concluding that none of the five violations would be cited. No colors were assigned to the violations. This non-cited violation, related to a 1993/1994 modification of EFW valve C-187, which left the EFW system vulnerable to a single

failure coincident with a secondary pipe break. This vulnerability is also contrary to the design basis requirements of UFSAR Section 10.4.7.1 and Appendix B, Criterion III. DEC's 10 CFR 50.59 safety evaluation that was performed in 1994 failed to recognize that the valve C-187 modification involved an unreviewed safety question, which would have required NRC approval prior to installing the modification. The NRC considers the 10 CFR 50.59 aspect of this issue to represent a missed opportunity to identify single failure vulnerabilities in the EFW system during the 10 CFR 50.59 process. (Section 4AO6.2)
Inspection Report# : 2000005*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate 10 CFR 50.59 Safety Evaluation for UFSAR Change That Reduced EFW System Design Criteria
On April 25, 2000, a predecisional enforcement conference (EA 98-543) was held to discuss seven apparent violations (EEIs) related to the emergency feedwater (EFW) system design. The apparent violations were identified prior to the April 1, 2000, implementation of the Revised Oversight Process (ROP) and were therefore dispositioned under the previous enforcement policy. The NRC concluded that the issues described in the seven apparent violations represented five violations of NRC regulations. Also, the NRC applied enforcement discretion and risk mitigation considerations in concluding that none of the five violations would be cited. No colors were assigned to the violations. This non-cited violation involved an inadequate 10 CFR 50.59 safety evaluation performed by DEC in November 1998. This 50.59 evaluation failed to recognize that a UFSAR change involved an unreviewed safety question and a change in the Technical Specifications (TS), and that NRC approval was required prior to making the change. Specifically, on November 18, 1998, the DEC staff approved a change to the UFSAR that reduced the stated design and performance requirements for the EFW system and consequently increased the probability of occurrence of a malfunction of equipment important to safety over that previously evaluated in the safety analysis report. (Section 4AO6.2)
Inspection Report# : 2000005*(pdf)*

Last modified : August 29, 2002