Cooper

Initiating Events

Significance: G Oct 05, 2002
Identified By: NRC
Item Type: FIN Finding
Green finding regarding an inadequate modification package which inadvertently de-energized control room equipment.
The unplanned loss of power to four effluent radiation monitors during the installation of a service water radiation monitoring system modification was considered to be a self-revealing finding. The modification package required lifting an energized lead to de-energize a portion of the old service water radiation monitoring system; however, due to errors made by design engineering, this step unintentionally de-energized four other effluent radiation monitors which were required to be operable per the Technical Requirements Manual. The finding was considered more than minor since the modification package required lifting energized leads in control room panels which could reasonably be viewed as a precursor to a significant event if not adequately controlled. The finding was characterized as having very low safety significance since the loss of the effluent monitors did not result in a release in excess of allowable limits.
Inspection Report# : 2002003*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to maintain Technical Specification Bases consistent with the USAR
The licensee failed to maintain Technical Specification Bases consistent with the USAR as required by Technical Specification 5.5.10(c). Specifically, the licensee failed to ensure that the Technical Specification Bases were maintained consistent with the Updated Final Safety Analysis Report with respect to offsite power supplying power to the 4160 volt buses. This resulted in the failure to enter Technical Specification 3.8.1.A, "One offsite circuit inoperable," that required the performance of Surveillance Requirement 3.8.1.1 within one hour on March 13, 2002. The licensee documented this issue in their corrective action process as Notification 10110178. The inspectors also determined that this noncited violation had crosscutting aspects associated with problem identification and resolution. This issue was determined to have an actual impact on safety, in that part of the safety function of a qualified offsite power source was unavailable. However, the condition was of very low safety significance because it was identified and corrected in approximately 2 hours (less than the Technical Specification allowed outage time) and the critical busses remained energized without the need for emergency power.
Inspection Report# : 2001008*(pdf)*

Significance: N/A Apr 03, 2001
Identified By: NRC
Item Type: URI Unresolved item
Potential Unreviewed Safety Question Related to Off-Site A/C Sources
IR 05000298-00-15; 12/31/2000-03/31/2001; Nebraska Public Power District; Cooper Nuclear Station. Integrated Resident/Regional Report; Safety Eval. Prog., Heat Sink Perf., Personnel Perf. During Nonroutine Plant Evolutions, Postmaintenance Testing, and Physical Security Plan. The inspectors identified that the 161 kV Auburn, Nebraska, line has never been analyzed and accepted as a General Design Criteria 17 qualified offsite ac power source. The original design basis had the power source transferred from the 345 kV/161 kV startup station service transformer to the 69 kV emergency transformer upon a loss of the 345 kV source. This issue is considered to be an unresolved item awaiting additional technical evaluation by the licensee and the NRC (1R02).
Inspection Report# : 2000015*(pdf)*

Mitigating Systems

Significance: G Oct 05, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
A noncited violation for failure to take corrective actions to prevent instrument line snubber clogging which caused a failure of the reactor core isolation cooling system.
The licensee failed to take corrective actions to prevent clogging of instrument line snubbers which resulted in the inadvertent isolation of the reactor core isolation cooling system on May 14, 2002. This was an apparent violation of 10 CFR Part 50, Appendix B, Criterion XVI. This

finding also had crosscutting aspects associated with problem identification and resolution. This finding was characterized under the significance determination process as having very low safety significance based on the results of a Phase 3 analysis. The finding was more than minor since it had an adverse impact on the availability, reliability, and capability of a mitigating system. Because of the very low safety significance and because the licensee included the item in their corrective action program as Resolve Condition Report 2002-0895, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy.
Inspection Report# : 2002003*(pdf)*

Significance: G Oct 05, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncited violation of License Condition 2.C.(4) for failure to maintain operability of a fire suppression system.
The licensee failed to identify and correct degraded spray shields associated with sprinkler heads on Sprinkler System 29 in the cable expansion room which provides fire protection for cable trays containing redundant divisions of safety-related cables. The spray shields were identified as having holes in them which would result in decreasing the effectiveness of the shields. This was a violation of License Condition 2.C.(4). This finding had crosscutting aspects associated with problem identification and resolution since the licensee had multiple opportunities to identify and correct this condition but failed to do so. This finding was more than minor since failure of this system during a fire would have adversely impacted the availability, reliability, and capability of systems that respond to an initiating event. The finding was characterized under the significance determination process as having very low safety significance since the alternate shutdown capability was unaffected and due to the low fire ignition frequency for the cable expansion room. Because of the very low safety significance and because the licensee entered the item in their corrective action program as Notification 10190964, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy.
Inspection Report# : 2002003*(pdf)*

Significance: G Oct 05, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
A noncited violation for failure to correct a procedure deficiency which affected the operability of the high pressure coolant injection system.
The licensee failed to take corrective actions for a surveillance test procedure that rendered the high pressure coolant injection system and the reactor core isolation cooling system concurrently inoperable. The procedural error was identified by the licensee in 1998 but no action was taken due to an incorrect conclusion that the procedure did not actually render the high pressure core injection system inoperable. When this question was addressed again in 2002, the licensee concluded that the system was, in fact, inoperable. This configuration was allowed by Technical Specifications; however, operators failed to recognize it as an entry condition into a shutdown action statement. No violation of the action statement was identified but the failure to recognize its entry condition was considered a condition adverse to quality. Therefore, this was considered to be a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This finding also had crosscutting aspects associated with problem identification and resolution. This finding was characterized under the significance determination process as having very low safety significance because the high pressure core injection system could have performed its safety function even though it was considered inoperable per Technical Specifications. The finding was more than minor since the procedural error had an adverse impact on the availability and capability of a mitigating system. Because of the very low safety significance and because the licensee included the item in their corrective action program as Notification 10193745, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy.
Inspection Report# : 2002003*(pdf)*

Significance: G Jul 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to apply required design control measures for a change to the service water system
The licensee failed to conduct required design control measures prior to implementing a design change in the service water system, in which a coating previously not evaluated was applied to the internal surface of several pipe riser columns. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50, "Design Control." This finding is characterized under the significance determination process as having very low safety significance because there was no loss of function in the service water system. Because of the very low safety significance and because the licensee included the item in their corrective action program as Notification 10156239, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy.
Inspection Report# : 2002002*(pdf)*

Significance: G Jul 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to adequately document environmental qualification of safety-related equipment
The licensee failed to identify and correct deficient documentation supporting environmental qualification of safety-related equipment in the steam tunnel and acceptable voltage applications for Buchanan 0241 terminal blocks. These findings were determined to be two examples of a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. The licensee documented this issue in their corrective action process as Notifications 10163954 and 10167990. This finding also had crosscutting aspects associated with problem identification and resolution. This finding was determined to have a credible impact on safety because there was no assurance that the equipment would perform its design function during accident conditions since it was not operating in a previously tested or analyzed configuration. This noncited violation was characterized under the significance determination process as having very low safety significance based on the performance of an acceptable analysis that demonstrated the affected equipment was environmentally qualified.
Inspection Report# : 2002002*(pdf)*

Significance: G May 25, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for diesel fuel oil day tank low level alarms
Technical Specification 5.4.1(a) requires that the licensee establish, implement, and maintain written procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Appendix A recommends procedures for abnormal, off normal, or alarm conditions. The inspectors concluded that the guidance contained in the alarm response procedure for a diesel generator fuel oil day tank low level alarm was inadequate. Specifically, the procedure directed operators to perform incorrect actions under a postulated condition that could have resulted in both diesel generators being inoperable. This was determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the licensee's corrective action program as Notification 10163642. This finding was considered to have a potential impact on safety since the inadequate procedure could result in the failure of both diesel generators following a loss of one diesel fuel oil transfer pump. This finding was characterized by the significance determination process as having very low safety significance since credit for recovery was given, based on fuel consumption rates and adequate procedures to monitor fuel consumption if both diesels were running.
Inspection Report# : 2002008*(pdf)*

Significance: N/A May 03, 2002
Identified By: NRC
Item Type: FIN Finding
Implementation of an improper validation process for biennial written requalification examinations
IR 05000298-02-06; Nebraska Public Power District; on April 29-May 3, 2002; Cooper Nuclear Station; supplemental inspection for a "White" inspection finding applicable to the mitigating systems cornerstone in the reactor safety strategic performance area. The inspection was conducted by two regional specialist inspectors. No findings were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000. The U.S. Nuclear Regulatory Commission (NRC) performed this supplemental inspection to assess the licensee's evaluation associated with a compromise in the integrity of written requalification examinations and a failure of the corrective action process to adequately evaluate the requalification examinations for the effects of the compromise. This performance issue was previously characterized as having low to moderate risk significance ("White") in NRC Inspection Report 50-298/01-12. During this supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspectors determined that the licensee performed a comprehensive root cause evaluation, determined the extent of condition, and developed appropriate corrective actions. The licensee identified the primary root cause of the examination compromise issue to be requalification examination program procedure inadequacies and examination process problems. The licensee also identified two additional contributing causes for this event, which involved a failure to take appropriate corrective actions when the compromise was originally identified in July 2000 and involved changes made to the examination validation process by a new training staff. The inspectors determined that the extent of condition involved only the year 2000 requalification examinations and did not extend to prior years. To assure that the licensed operating staff was qualified and that their corrective actions were effective, the inspectors noted that the licensee conducted their biennial written requalification examinations in January 2002 rather than July 2002. The examinations were developed in accordance with NUREG-1021, "Operating Licensing Examination Standards for Power Reactors." The method by which the licensee validated the examinations maintained the integrity of the examinations. Given the licensee's acceptable performance in addressing the requalification examination issue, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program." With the exception of corrective actions involving training procedure revisions, all corrective actions had been implemented. These training procedures are routinely reviewed during inspections performed as a part of the baseline inspection program.
Inspection Report# : 2002006*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate piping in accordance with 10 CFR 50.55 (a)(3)
The licensee failed to adequately evaluate localized areas of erosion and corrosion of the service water system in accordance with 10 CFR Part 55a(a)(3). Specifically, the licensee used an alternative method, not approved for use as required by 10 CFR 50.55a(a)(3), to evaluate localized

areas of wall thinning of the service water system piping. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. The licensee documented this issue in their corrective action process as Notification 10140024. This issue was determined to have a credible impact on safety in that the failure to properly evaluate piping, in accordance with approved methods, could result in piping being below minimum code acceptable thickness. This noncited violation was characterized under the significance determination process as having very low safety significance. The licensee replaced all segments of piping that were potentially outside code requirements during the refueling outage starting in November 2001. Those segments of piping not replaced were subsequently evaluated to meet code requirements using an approved method.
Inspection Report# : 2001008*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement effective corrective actions
The inspectors determined the licensee failed to implement effective corrective actions after identifying that changes in river temperatures adversely affected service water pump impeller clearances. The ineffective corrective actions resulted in Service Water Pump D failing on December 26, 2002. The failure to identify and correct this significant condition adverse to quality is a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. The licensee documented this issue in their corrective action process as Notification 10132527. This issue also had crosscutting aspects associated with problem identification and resolution. This issue was determined to have an actual impact on safety in that the failure to properly maintain the appropriate impeller clearances resulted in pump failure. This NCV was characterized under the significance determination process as having very low safety significance. The service water system is a two-train system, with each train containing two full capacity pumps. Therefore, the loss of a single pump did not disable the design function of the service water system.
Inspection Report# : 2001008*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncompliance of safety relief valves with 10 CFR 50.49 requirements
The licensee failed to maintain the safety relief valve solenoids in an environmentally qualified condition. The solenoid-operated pilot valve terminal boards and connections were not maintained consistent with the tested configuration. Specifically, conformal coating did not completely cover the electrical connections and the installation of insulated lugs deviated from the tested configuration. This was determined to be a violation of 10 CFR Part 50.49(f). This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10123606. This issue was considered to have a credible impact on safety in that, if the equipment is not in a previously tested configuration, there is no assurance that the equipment will perform its design function during accident conditions. This noncited violation was characterized under the significance determination process as having very low safety significance because the safety relief valve solenoids were later tested to demonstrate they would perform their design function during accident conditions.
Inspection Report# : 2001008*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify and correct a condition adverse to quality
The licensee failed to identify and correct a condition adverse to quality. On October 3 and 23, 2001, the licensee identified two other areas in the service water system SW-F11 function that exceeded ASME B31.1 minimum pipe wall thickness requirements prior to being replaced. The licensee failed to implement effective corrective actions, resulting in the SW-F11 function exceeding ASME minimum pipe wall thickness. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10144722. This issue was considered to have a credible impact on safety in that the failure of the service water piping boundary would potentially cause a serious degradation of the ultimate heat sink capability. This noncited violation was characterized under the significance determination process as having very low safety significance, because the licensee had replaced all segments of piping that contained pin hole leaks and those areas where minimum pipe wall thickness exceeded the performance criteria did not exceed the design allowable stresses.
Inspection Report# : 2001008*(pdf)*

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to perform an operability evaluation and/or declare equipment inoperable
The licensee failed to perform an operability evaluation and/or declare equipment inoperable after identifying that the reactor equipment cooling system was not analyzed for a loss of coolant accident. This was determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. The licensee documented this issue in their corrective action process as Notification 10147885. The inspectors also considered this noncited violation had crosscutting aspects associated with problem identification and resolution. This issue was determined to have a credible impact on safety because the reactor equipment cooling system was not evaluated as being able to perform its cooling functions, including support for emergency core cooling systems, during accident conditions. This noncited violation was characterized under the significance determination process as having very low safety significance because the licensee subsequently performed an operability evaluation that demonstrated the system could perform all its design basis functions.
Inspection Report# : 2001008*(pdf)*

Significance: G Jan 03, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify and correct 10 CFR 50.49 requirements associated with safety-relief valve cables
The licensee failed to identify and correct a condition adverse to quality. Power cables to the safety-relief valve solenoid valves were not maintained in conformance with 10 CFR 50.49 requirements from 1995 through October of 2001. The licensee had several opportunities to identify and correct this condition from April 2000 to October 2001. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10092693. This finding was more than minor because, if left uncorrected, it would have posed a more significant issue. This noncited violation was characterized under the significance determination process as having very low safety significance because the safety-relief valves were later determined to have been qualified.
Inspection Report# : 2001007*(pdf)*

Significance: G Jan 03, 2002
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee personnel inappropriately racked out the Residual Heat Removal Pump B breaker
On November 9, 2001, the licensee identified that, during performance of a tagout, personnel inappropriately racked out the Residual Heat Removal Pump B breaker. This was determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10122626. The safety significance of this violation was determined to be very low. Residual Heat Removal Pump B was not in use when the breaker was removed and did not affect the ability to maintain the plant in a safe shutdown condition. Specifically, the reactor cavity was flooded to greater than 23 feet, the spent fuel pool gates were open, a division of shutdown cooling was operable, and emergency core cooling system instrumentation was not affected. Additionally, the removal of the wrong breaker was immediately identified by the licensee and it was returned to service within 1 hour.
Inspection Report# : 2001007*(pdf)*

Significance: G Jan 03, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedure resulting in a fire
The licensee failed to ensure that combustible material was removed or protected from hot work resulting in a fire on November 26, 2001, located in the reactor building on the torus area floor. This was determined to be a violation of Technical Specification 5.4.1.d. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10126869. This issue was determined to have a credible impact on safety because an actual fire inside the reactor building occurred. This noncited violation was characterized under the significance determination process as having very low safety significance because the fire was quickly identified and extinguished, and the fire did not, and could not affect any equipment necessary for maintaining safe shutdown conditions. Specifically, the reactor cavity was flooded to greater than 23 feet, the spent fuel pool gates were open, a division of shutdown cooling was operable, and emergency core cooling system instrumentation was not affected.
Inspection Report# : 2001007*(pdf)*

Significance: G Jan 03, 2002
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee personnel inappropriately removed seismic restraint/pipe support from an operable and running service water piping system
On November 15, 2001, the licensee identified that personnel had inappropriately removed a seismic restraint/pipe support (SW-H138) from an

operable and running service water piping system. This was determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10123800. The safety significance of this violation was determined to be very low. Although the operators declared the service water system inoperable, the removal of the support hanger did not affect the service water system from performing its function to maintain the plant in a safe shutdown condition. Specifically, the reactor cavity was flooded to greater than 23 feet, the spent fuel pool gates were open, a division of shutdown cooling was operable, and emergency core cooling system instrumentation was not affected. Additionally, the section of piping affected was immediately isolated following discovery of the missing hanger until repairs were performed.
Inspection Report# : 2001007*(pdf)*

Significance: SL-IV Dec 14, 2000
Identified By: NRC
Item Type: VIO Violation
Failure to Maintain Environmental Qualifications of Safety-Related Equipment
Cooper Nuclear Station NRC Inspection Report 50-298/00-07 This special inspection report covered the activities associated with inspection and assessment of environmental qualification issues. The failures to environmentally qualify, maintain the qualification of, and document qualifications in an auditable form, for equipment important to safety, constituted an apparent violation of 10 CFR 50.49 (Section 2.02). This item was orginally opened as an apparent violation in IR 00-07. It was later closed per letter from Nebraska Public Power District dated November 8, 2001, Reference #NLS2001104 and reopened as a violation, Severity Level IV.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to monitor performance of Maintenance Rule components
The licensee failed to demonstrate that performance of the feedwater check valves was being effectively controlled through the performance of appropriate preventive maintenance in that repetitive preventive maintenance preventable failures of the valves occurred from July 1996 to February 19, 2002. Following these failures, the licensee failed to consider placing the feedwater check valves into (a)(1) status. This was determined to be a violation of 10 CFR 50.65 (a)(2). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the licensee's corrective action program as Notification 10122802. This issue was considered to have a credible impact on safety, in that the failure of these valves caused a higher than normal containment leakage. This noncited violation was characterized under the significance determination process as having very low safety significance. The finding was a Type A finding in accordance with the significance determination process in Table 2 of Inspection Manual Chapter 0609-H, "Containment Integrity Significance Determination Process." Type A findings are findings that affect core damage frequency. Type A findings with a delta core damage frequency less than 10-7/yr associated with large early release frequency sequences in plants with Mark I containments are considered to be Green, based on low core damage frequency and large early release frequency, as documented in Table 1 of Inspection Manual Chapter 0609-H, "Containment Integrity Significance Determination Process".
Inspection Report# : 2001008*(pdf)*

Significance: G Jan 03, 2002
Identified By: Licensee
Item Type: NCV NonCited Violation
Ineffective corrective actions resulting in repetitive scaffold construction nonconformances
The licensee failed to implement effective corrective actions, resulting in repetitive scaffold construction nonconformances potentially affecting the operation of equipment important to safety. Examples included scaffolding built in the proximity of and over safety-related equipment, as well as scaffold components that could have interfered with the safety function of plant components. This violation of 10 CFR Part 50, Appendix B, Criterion XVI, is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10127237. This issue was considered to have a credible impact on safety, in that the failure to properly construct scaffolds could affect the operation of equipment important to safety. This noncited violation was characterized under the significance determination process as having very low safety significance because the failure to construct scaffolds in accordance with the procedural requirements did not result in any equipment failure or loss of safety function.
Inspection Report# : 2001007*(pdf)*

Significance: G Jan 03, 2002

Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow procedure resulting in disabling the suppression chamber vacuum relief valves
On November 2, 2001, the licensee identified that personnel inadvertently placed the Suppression Chamber Vacuum Relief Valves PC-AO-243 and PC-AO-244 operating switches to close while performing a tagout of another system for maintenance. This was determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10120889. This issue was considered to have a credible impact on safety, in that the suppression chamber vacuum relief function was disabled. This event was characterized as having very low safety significance because licensed operators identified that the switches were in the incorrect position and corrected the condition within approximately 3 hours. This was within the Technical Specification allowed outage time.
Inspection Report# : 2001007*(pdf)*

Significance: G Jan 03, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify and correct design control deficiencies associated with the reactor feedwater check valves
The licensee failed to implement effective corrective actions resulting in repetitive failures of reactor feedwater check valves to pass local leak rate testing requirements from 1983 through November of 2001. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Significant Condition Report 2001-1161. This issue was considered to have a credible impact on safety, in that the failure of these valves caused a higher than normal containment leakage. This noncited violation was characterized under the significance determination process as having very low safety significance. The finding was a Type B finding in accordance with the significance determination process because these valve failures did not affect core damage frequency. Type B findings related to containment isolation valves in plants with Mark I containments and are considered to be Green, based on Table 3 of Inspection Manual Chapter 0609-H, "Containment Integrity Significance Determination Process."
Inspection Report# : 2001007*(pdf)*

Emergency Preparedness

Significance: N/A May 28, 2002
Identified By: NRC
Item Type: FIN Finding
Summary of Assessment for a Supplemental Inspection (95002)
IR 05000298-02-05, on 04/15-18/2002, Nebraska Public Power District, Cooper Nuclear Station. Supplemental inspection for a degraded emergency preparedness cornerstone in the reactor safety strategic performance area resulting from multiple White inspection findings. This supplemental inspection was primarily performed by the NRC to assess the licensee's evaluations of the following inspection findings: (1) the licensee failed to implement planning standard 10 CFR 50.47(b)(5), resulting in an untimely notification to state and local response organizations following declaration of an Alert on June 25, 2001; (2) the licensee failed to meet emergency planning standard 10 CFR 50.47(b)(2), resulting in untimely activation of the emergency response facilities following declaration of an Alert on June 25, 2001. These performance issues were characterized as having low to moderate risk significance (White). This inspection was also performed to evaluate followup corrective actions for a previous finding documented in NRC Inspection Report 50-298/01-04. This finding was for a performance weakness that was repeated during an April 11, 2001, drill, resulting in a violation of 10 CFR Part 50, Appendix E, Paragraph IV.F.2.g. During this supplemental inspection, the inspectors evaluated the extent of the condition for both of the 10 CFR 50.47 findings. They found that other problems, with a similar root cause, could exist beyond the original case due to the licensee's weaknesses in identification and resolution of problems. The licensee determined that the root cause of the Emergency Preparedness Program implementation breakdown was "Overall inadequate program implementation and maintenance of the Emergency Plan." The licensee's root cause evaluation did not fully identify and assess all contributing causes that resulted in the breakdown of the Emergency Preparedness Program. An extensive list of corrective actions was developed to address the Emergency Preparedness Program issues. However, these corrective actions were not supported by a thorough assessment that would ensure the licensee had a detailed understanding of the underlying problems. The inspectors concluded that the licensee did not provide adequate assurance that all causes of the programmatic breakdown were identified and evaluated or that the developed corrective actions would prevent recurrence of future emergency preparedness problems. The licensee had detailed an extensive list of corrective actions in their Emergency Preparedness Improvement Plan Schedule. Most of these actions were complete. However, licensee performance in simulator drills and on a call-out drill was not indicative of a program that had undergone extensive and effective corrective actions. As a result of these concerns, both of the 10 CFR 50.47 White issues will remain open. The inspectors also reviewed the corrective actions for a previous finding, "Corrective actions implemented to prevent recurrence of a dose assessment performance weakness identified during the August 29, 2000, biennial exercise were not fully effective in that they were narrowly focused and failed to prevent recurrence of the performance weakness (Inspection Report 50-298/2001-04)." The inspectors concluded that actions after an NRC supplemental inspection (NRC Supplemental Inspection Report 50-298/2001-011) corrected the specific aspects of problems identified during that inspection. However, other Emergency Preparedness Program problems were missed when the licensee failed to conduct a thorough root cause evaluation and identify deficiencies similar to those identified during the inspection. The inspectors concluded that this finding involved similar aspects of problem identification and resolution to the other emergency preparedness findings. Since these problems are of a similar nature, and the

expected resolution is common, this finding will also remain open.
Inspection Report# : 2002005*(pdf)*

Significance: W Jan 01, 2002
Identified By: NRC
Item Type: VIO Violation
Failure to Perform Timely Offsite Notification during Alert
(NOTE: The Degraded Cornerstone Inspection (IR 50-298/2002-05) held this violation open pending further review of corrective actions. The original date was July 25, 2001. The event date was modified so that this item would continue to be indicated as an open White finding.) The licensee failed to notify state and local governmental agencies within 15 minutes of declaring an Alert on June 25, 2001. This was a violation of 10 CFR 50.54(q) and the licensee's emergency plan. This violation was evaluated under the risk significance determination process as having low to moderate safety significance based on the following: (1) the failure to notify state and local governmental agencies in a timely manner, following declaration of an Alert, during an actual event on June 25, 2001; and (2) this finding represents a failure to implement the risk significant planning standard 10 CFR 50.47(b)(5) (Section 4OA3.1). Final SDP letter sent March 1, 2002.
Inspection Report# : 2001009*(pdf)*

Significance: W Jan 01, 2002
Identified By: NRC
Item Type: VIO Violation
Failure to Meet Planning Standard 10 CFR 50.47(b)(2)
(NOTE: The Degraded Cornerstone Inspection (IR 50-298/2002-05) held this violation open pending further review of corrective actions. The original date was July 25, 2001. The event date was modified so that this item would continue to be indicated as an open White finding.) The licensee failed to activate the emergency response facilities within approximately one hour following declaration of an Alert on June 25, 2001. This was a violation of 10 CFR 50.54(q) and 10 CFR 50.47(b)(2). This violation was evaluated under the risk significance determination process as having low to moderate safety significance based on the following: (1) the finding is a violation of 10 CFR 50.54(q); and (2) this finding was a failure to meet nonrisk significant planning standard 10 CFR 50.47(b)(2) (Section 4OA3.2) Final SDP letter issued March 1, 2002.
Inspection Report# : 2001009*(pdf)*

Significance: W Jan 01, 2002
Identified By: NRC
Item Type: VIO Violation
Failure to correct a risk-significant EP performance weakness
(NOTE: The Degraded Cornerstone Inspection (IR 50-298/2002-05) held this violation open pending further review of corrective actions. The original date was June 27, 2001. The event date was modified so that this item would continue to be indicated as an open White finding.) Corrective actions implemented to prevent recurrence of a dose assessment performance weakness identified during the August 29, 2000, biennial exercise were not fully effective in that they were narrowly focused. The dose assessment team failed to recognize a degraded core condition and to revise its dose projections for the degraded condition. As a result, protective action recommendations were not upgraded. Corrective actions for the performance weakness concentrated on procedural inconsistencies that contributed to the failure and did not sufficiently recognize the need for additional personnel training. As a result, the performance weakness was repeated during an April 11, 2001, drill. This was an apparent violation of 10 CFR Part 50, Appendix E, Paragraph IV.F.2.g. This finding had greater than minor significance because the failure to use a degraded core in dose calculations had a credible impact on safety, in that it resulted in incorrect protective action recommendations which could have caused offsite populations to receive unnecessary radiation dose. It had been preliminarily determined to have low to moderate safety significance (White) using the Emergency Preparedness Significance Determination Process because it represented a failure to correct a performance weakness associated with a risk-significant emergency preparedness planning standard. This violation was entered into the licensee's corrective action program as RCR 2001-0331. The final determination for a white finding and notice of violation were issued for EA-01-154 on August 13, 2001.
Inspection Report# : 2001004*(pdf)*

Occupational Radiation Safety

Significance: G Apr 15, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Two examples of the failure to inform workers of the radiological conditions in their work area

The NRC determined that on November 27, 2001, three workers were not informed of the contamination levels, airborne radiological conditions, and the potential for creating an airborne area prior to the start of their task. One of these individuals received an unplanned intake of radioactive material resulting in a dose of 15 millirem. Contamination levels were as high as 480 millirad per hour (fixed) and 10 millirad per hour (loose surface). Airborne radiological conditions were 0.5 derived air concentration. The failure to inform workers of the radiological conditions in their work area is a 10 CFR 19.12 violation. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Notification 10127287. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process. The failure to inform workers of the radiological conditions in their work area has a credible impact on safety, and the occurrence involved a worker's unplanned dose that could have been significantly greater if radiological conditions had been greater. However, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2001008*(pdf)*

Significance: G Jan 03, 2002
Identified By: Licensee
Item Type: NCV NonCited Violation
The licensee failed to lock and control items hanging in the spent fuel pool
The licensee failed to lock and control items hanging in the spent fuel pool that would create a high radiation area if removed. Specifically, on October 26, 2001, two items were found with underwater on contact radiation levels of 40 and 120 Rem per hour and, on November 29, 2001, another item was found with contact radiation levels of 200 Rem per hour. Licensee personnel assumed that these contact dose rates would have resulted in a high radiation area if the components had been removed from the pool. These occurrences were determined to be a violation of Technical Specification 5.4.1(a). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This issue has been entered into the licensee's corrective action process as Notification 10127300. The safety significance of this violation was determined to be very low by the occupational radiation safety significance determination process because there was no actual overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2001007*(pdf)*

Public Radiation Safety

Physical Protection

Significance: N/A Dec 30, 2002
Identified By: NRC
Item Type: FIN Finding
Verification of Compliance With Interim Compensatory Measures Order
On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.
Inspection Report# : 2002010*(pdf)*

Significance: G Oct 05, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
A noncited violation of 10CFR73.55(d)(3) for failure to detect prohibited contraband during a security search prior to the material entering the protected area.
The failure of the security search to detect and control a box of ammunition as it entered the protected area was considered to be a self-revealing noncited violation of 10 CFR 73.55(d)(3). This finding was characterized by the significance determination process as having very low safety significance since there were not more than two similar findings in the past four quarters. It was considered more than minor because it represented a failure to meet the requirements of 10 CFR 73.55(d) and the licensee's security plan. Because of the very low safety significance and because the licensee entered this finding into their corrective action program as Notification 10181426, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy.
Inspection Report# : 2002003*(pdf)*

Significance: G Jul 12, 2002
Identified By: NRC
Item Type: FIN Finding
Inconsistent implementation of fitness-for-duty requirements
The inspectors identified a finding regarding inconsistencies in the licensee's implementation of the testing for cause requirements of 10 CFR 26.24. This finding was identified during a followup inspection of an unresolved item discussed in NRC Inspection Report 50-298/0108 (URI 50-298/0108-08). No violation of NRC requirements was identified; however, this finding had a credible impact on safety since inconsistent implementation of the fitness-for-duty requirements could reduce the effectiveness of the program in deterring and detecting potential substance abuse. Manual Chapter 0609 has no significance determination process to address fitness for duty without affects on radiological sabotage. Therefore, in accordance with Appendix B of NRC Manual Chapter 0612, this issue is considered a Green non-SDP finding.
Inspection Report# : 2002002*(pdf)*

Miscellaneous

Significance: N/A Aug 22, 2002
Identified By: NRC
Item Type: FIN Finding
Summary of Assessment for Supplemental Inspection (95003)
On April 1, 2002, Cooper Nuclear Station entered the Repetitive Degraded Cornerstone Column of the Action Matrix. Upon entry into this column of the Action Matrix, and with oversight by the NRC, Nebraska Public Power District was required to develop a comprehensive improvement plan. The purposes of this inspection were to determine the breadth and depth of the performance deficiencies and to assess the adequacy of the licensee's improvement plan (The Strategic Improvement Plan, Revision 1). The inspectors found that Cooper Nuclear Station is being operated safely; however, a number of long-standing performance problems exist. Of greatest concern is the failure of Cooper Nuclear Station to correct recurring performance issues. For example, the improvement plan did not include actions to correct recurring equipment problems and was not comprehensive in addressing problems with the corrective action program. Nebraska Public Power District has been unsuccessful in efforts to improve performance with focused improvement plans. The inability to effectively correct problems has resulted in recurring problems with the reliability of safety systems, personnel errors, implementation of the emergency plan, and the quality of engineering, training, and maintenance activities. The development of the improvement plan lacked the requisite coordination between problem characterization and the corrective actions specified to correct the problem. The team found performance problem areas which were not effectively addressed by the improvement plan and one area which was missed in its entirety. Also, the improvement plan actions were not prioritized and integrated. The performance problem areas that were identified as not being effectively addressed included equipment reliability; adequacy of operability determinations; plant modification packages; management of component parts; use of industry operating experience information; effective use of performance problem trend codes; use of departmental performance indicators; conflicting departmental and station priorities, policies, and goals; effective implementation of engineering programs; entering self-assessment findings and observations into the corrective action program; coordination and integration among site organizations; procedure change requests; and conflicting departmental and station priorities, policies, and goals. The level of detail of documents reviewed by the team was frequently not sufficient to assess the effectiveness of planned actions. The improvement plan, in general, did not include adequate performance measures to evaluate the effectiveness of the actions plans. In addition, the improvement plan had not been assessed for the resources needed for successful implementation of the planned actions.
Inspection Report# : 2002007*(pdf)*

Significance: G Aug 25, 2000
Identified By: NRC
Item Type: VIO Violation
Failure to Take Prompt Corrective Actions
The licensee did not take timely corrective actions for restoration of environmentally qualified electrical and controls equipment control panels for the high pressure coolant injection system, which were not properly secured. Furthermore, the licensee did not implement measures through maintenance procedure revisions and corrective actions to address environmental qualification aspects of maintenance on safety-related equipment. This issue had previously been identified as a Non-Cited Violation in NRC Inspection Report 50-298/9916-01, yet actions to revise maintenance procedures and restore compliance had not been promptly taken and continued to be uncorrected 9 months after initial identification. No formally reviewed and approved analysis had been performed to justify not correcting the discrepant condition, which could affect equipment operability. Nonconformance conditions are required to be promptly corrected or sufficient interim compensatory measures established, or technical evaluations performed to justify the existing condition. The failure to establish prompt corrective actions for conditions adverse to quality was a violation of 10 CFR Part 50, Appendix B, Criterion XVI (50-298/0010-03) (Section 4OA2.3.b). This issue was characterized as a green finding using the significance determination process. The issue was determined to have very low risk significance because of redundant systems and the actual impact on the affected equipment was low.
Inspection Report# : 2000010*(pdf)*

Last modified : March 25, 2003