

NOTICE OF VIOLATION

Nebraska Public Power District
Cooper Nuclear Station, Unit 1
EA No: 94-018

Docket No: 50-298
License No: DPR-46

During an NRC inspection conducted from November 1-5 and 13-19, 1993, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violations are listed below:

- A. 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states, in part, activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances.

Contrary to the above, the following are examples of procedures not being appropriate to the circumstances (01014):

1. Procedures that provide for sampling the standby liquid control tank (Chemistry Procedure 8.4, Revision 6) and the diesel generator fuel oil storage tanks (Procedure 6.3.12.3, Revision 16) had not incorporated the housekeeping requirements specified in the Quality Assurance Program for Operations, Revision 8, and ANSI N45.2.3-1975, "Housekeeping during the Construction Phase of Nuclear Power Plants," and its associated Regulatory Guide 1.39, "Housekeeping Requirements for Water Cooled Nuclear Power Plants."
2. Preventive Maintenance Tasks 0200 and 0201 for the diesel generator fuel oil transfer pumps and the preventive maintenance task for the 24-Vdc battery chargers could not be performed as written. Preventive Maintenance Tasks 0200 and 0201 specified that equipment be inspected; however, acceptance criteria, procedure reference, or precautions were not provided. The preventive maintenance task for cleaning the 24-Vdc battery chargers did not provide precautions, limitations, or instructions.
3. Preventive Maintenance Task 07272 developed for the control building ventilation fan motors (HV-MOT-SF-SWGR-1F and HVT-MOT-SF-SWGR-1G), allowed the combining of Mobilux No. 2 or Chevron SRI No. 2 grease for motor-bearing lubrication. These lubricants are not compatible and if mixed could result in motor-bearing failure.
4. Design Modification 88-053B, for the essential portions of the control building heating, ventilation, and air conditioning system, established a weekly preventive maintenance to cycle Control Room Dampers HV-AD-1405, -1406, -1407, -1408, -1409, and -1410. The dampers were installed in 1992, but the weekly preventive maintenance had not been incorporated into the maintenance program and had not been performed.

5. Surveillance Procedure 6.3.8.2, Revision 35, "SLC Pump Operability Test," was not adequate to perform the surveillance activity because two demineralized water valves (DW-416 and DW-417), which were required to be manipulated to fill the test tank, were not included in the procedure.
6. Conduct of Plant Operations Procedure 2.0.7, Revision 17, "Plant Temporary Modification Control," Paragraph 1, identifies that it controls temporary modifications in a manner that ensures operator awareness, conformance with design intent and operability requirements, and preserves plant and personnel safety. Procedure 2.0.7 was determined to be inadequate for the control of temporary modifications because the procedure failed to provide measures to ensure that the necessary reviews associated with installed temporary modifications, which were deferred because the affected system was out of service, were performed in the event the system was placed back in service. It was identified that Temporary Modifications 93-31 and 93-35 were placed back into service without having the required reviews performed.

This is a Severity Level IV violation (298/93202-01) (Supplement I).

- B. Technical Specification 3.2.F, "Primary Containment Surveillance Information," and Table 3.2.F specify a minimum of two suppression chamber/torus water level instruments (PC-LI-12 and PC-LI-13) shall be operable. Action Statement E requires that, in the event both channels are inoperable and indication cannot be restored in 6 hours, an orderly shutdown shall be initiated and the reactor shall be in hot shutdown in 6 hours and in cold shutdown in the following 18 hours.

Contrary to the above, on January 30 and 31, 1993, with both suppression chamber/torus water level instruments (PC-LI-12 and PC-LI-13) inoperable, an orderly shutdown was not commenced after 6 hours, and the reactor was not placed in hot shutdown within the following 6 hours. Instruments PC-LI-12 and PC-LI-13 were rendered inoperable on January 30, 1993, during the performance of Maintenance Work Request 92-0185 and were not declared inoperable until the following day at 1:19 p.m. (02014).

This is a Severity Level IV violation (298/93202-02) (Supplement I).

- C. Criterion V of Appendix B to 10 CFR Part 50 states, in part, activities affecting quality shall be prescribed by documented instructions or procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions or procedures.

The following are examples of procedures not being accomplished in accordance with prescribed instructions or procedures:

1. Maintenance Procedure 7.0.1.3, Revision 1, "Maintenance Work Request-Documentation of Work," Section 8.2.1, stated, in part, that the shop supervisor shall ensure a craftsman obtains all designated maintenance work request approval signatures that are required just prior to starting the work activity. Section 8.2.3.6 required that the shift supervisor be familiar with all aspects of the maintenance work request package; ensure that performance of the work activity will not compromise reactor safety or adversely affect existing plant operating conditions; ensure that assigned quality control, postmaintenance testing, special instructions, or engineering support documents adequately address the scope of the work activity and resolve any concerns; sign shift supervisor's approval to perform the work; and record the date and time on the maintenance work request.

In addition, Procedure 7.0.1.3, Section 8.3, required that the shop supervisor sign that supervision reviewed all work, documentation has been completed satisfactory, equipment is ready for testing, and record the date and time. The maintenance work request is then forwarded to the shift supervisor to review the maintenance work request package to understand the extent and effect of work activity, perform any postmaintenance testing assigned to the operations department, ensure that the results of all postmaintenance testing specified by the operations department have been recorded and are signed and dated, ensure that any discrepancies have been resolved, sign and date for the shift supervisor's final review, sign equipment ready for service, and record the date and time.

- a. Contrary to the above, a maintenance work request was improperly used since the work identified on the maintenance work request had been completed. The maintenance work request was used to perform additional work on the component to include postmaintenance testing and correcting a level instrument incorrect reading (03014).
- b. Contrary to the above, maintenance work requests were identified as being left open for extended periods of time. This practice permitted multiple work activities to be performed at the component and the use of an open maintenance work request on a component to perform a rework-type activity without specific instructions. For example, the licensee prepared to investigate and repair the cause of an oil leak on the recently repaired Reactor Water Cleanup Pump A using the original (unrevised) maintenance work request. The original maintenance work request, under which the repair work was performed, was still open, in the review process, and was to be used for the lube oil leak repair. Secondly, Maintenance Work Request 93-3895, which had been closed by the department supervisor, was used to

perform troubleshooting activities, November 2, 1993, on the Standby Gas Treatment Temperature Indicator SGT-TI-537A (03024).

2. Maintenance Procedure 7.0.4, Revision 0, "Conduct of Maintenance," Section 8.2.4, required that craftsman perform a work activity through to completion per the maintenance work request package. If during the performance of the maintenance activity, the scope of work changes (not designated in the section that identifies work failures), the craftsman shall stop the work activity and contact shop supervision. This includes any additions to the maintenance work request package (i.e., CGIs, QC, etc.). Shop supervision shall contact the maintenance planning office so the work activity instructions can be revised or a new maintenance work request package issued.

Contrary to the above, Maintenance Work Request 93-3590 instructions were not followed as this work request set the oil pressure on the high pressure coolant injection, turbine lube oil system, but did not specify what the required range for the oil pressure should be. The pressure for Indicator HPCI-PI-2783 was required to be adjusted to read 82.7 kPa (12 psig) with no tolerance provided. The craftsman adjusted the pressure indicator to 75.8 kPa (11 psig), with no explanation for the discrepancy (03034).

3. Procedure 2.0.9, "Control of Plant Labeling and Operator Aids," Revision 3, specified the controls needed for operator aids/labeling

Contrary to the above, operator aids found, including "green band" markings, in the plant were not being controlled in accordance with the requirements specified in Procedure 2.0.9 (03044).

4. Procedure NTI-02, "Training Records," Revision 10, Section A.6.a, required, in part, a single line in ink will be drawn through an entry in a record that is to be changed, leaving it legible, with the new entry near the old entry.

Contrary to the above, the start and completion dates, in various attendance records concerning the fourth quarter of 1992 and first quarter of 1993 of fire brigade training, were changed by overwriting the original dates on the form (03054).

This is a Severity Level IV violation (298/93202-03) (Supplement I).

- D. Technical Specification 6.1.3, "Plant Staff-Shift Complement," requires, in part, the shift complement shall at all times meet the requirements specified in Section I. Section I requires that a shift technical advisor shall be available, except during cold shutdown conditions, to

serve in an advisory capacity to the shift crew on matters pertaining to the engineering aspects assuring safe operation of the plant.

Contrary to the above, from October 14-21, 1993, with the plant in the run mode, five shift technical advisors stood watch even though their training had expired (04014).

This is a Severity Level IV violation (298/93202-04) (Supplement I).

- E. Technical Specification 6.1.3, "Plant Staff-Shift Complement," requires, in part, the shift complement shall at all times meet the requirements specified in Section G. Section G requires that a fire brigade of at least five members shall be maintained at all times. Two support members may be from other departments inclusive of security personnel. Section 27 of the National Fire Protection Association (NFPA) code requires quarterly training sessions for fire brigade members.

Contrary to the above, during 1993, personnel (including security officers), who were members of the fire brigade, did not receive quarterly fire brigade training (05014).

This is a Severity Level IV violation (298/93202-05) (Supplement I).

- F. 10 CFR Part 50, Appendix B, Criterion II, "Quality Assurance Program," states, in part, the quality assurance program shall provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety.

Contrary to the above, the licensee failed to maintain configuration control as identified by the following (06014):

1. Engineering controls were not properly applied to work done under maintenance work requests. Maintenance Work Request 93-2691 fabricated a replacement restricting orifice plate for HPCI-OR-137C, which was found to be missing by the licensee during a plant walkdown. The licensee fabricated a duplicate orifice, using an adjacent flange as a model, in lieu of determining the design requirements for the missing orifice plate. Secondly, Maintenance Work Request 93-0855 was used to modify a drain line from a 24-inch pipe in the residual heat removal system. This modification was performed in accordance with two memoranda from the Nuclear Engineering Department and the maintenance work request rather than a design package. Thirdly, Maintenance Work Request 93-0801 was used to replace the residual heat removal pump suction spool pieces. The spool piece was torqued to the maximum value allowed in Maintenance Work Practice 5.1.2, "Flexatalllic Flange Joints," Revision 0. When the pipe was filled with water for the inservice leak test, the craftsman tightened the bolts to

prevent leakage. No engineering involvement was obtained to ensure that the bolts were not overstressed.

2. Configuration of the plant was not adequately controlled when interferences were removed and replaced for maintenance purposes, as exhibited by numerous licensee-identified discrepancies involving small-bore pipe supports and the configuration of thermal insulation.

This is a Severity Level IV violation (298/93202-06) (Supplement I).

- G. Technical Specification Section 3.19.A requires that fire barriers and fire wall penetration fire seal integrity be maintained.

Contrary to the above, on November 2 and November 13, 1993, Fire Doors R1 and R3, respectively, were found inoperable. Further inspection resulted in a total of 20 fire doors being declared inoperable (07014).

This is a Severity Level IV violation (298/93202-07) (Supplement I).

- H. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," states, in part, design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design and be approved by the organization that performed the original design unless the applicant designates another responsible organization.

Contrary to the above, changes to the design and configuration of the insulation installed on piping and equipment was routinely made without the use of the design change process, and as a result, reviews were not performed in a manner commensurate to those applied to the original insulation design (08014).

This is a Severity Level IV violation (298/93202-08) (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Nebraska Public Power District is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued to show cause why the license should not be modified, suspended, or

revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Dated at Arlington, Texas,
this *20th* day of *May* 1994