UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-8064

FEB - 2 1995

TU Electric
ATTN: C. L. Terry, Group Vice President
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Energy Plaza
1601 Bryan Street, 12th Floor
Dallas, Texas 75201-3411

SUBJECT: NRC INSPECTION REPORT NO. 50-445/94-23; 50-446/94-23

Thank you for your letter of January 23, 1995, in response to our Notice of Violation dated December 8, 1994.

Based on our review of your response, we have no further questions at this time on your proposed corrective actions. We will review the implementation of these actions during a future inspection to ensure they have been effective in precluding future noncompliance.

Sincerely,

for A. Bill Beach, Director
Division of Reactor Projects

Dockets: 50-445
50-446
Licenses: NPF-87
NPF-89

cc:
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Honorable Dale McPherson
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bcc to DMB (IE01)

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Branch Chief (DRP/TSS)
Resident Inspector (2)
Leah Tremper (OC/LFDCB, MS: TWFN 9E10)
DRSS-FIPB
Project Engineer (DRP/B)

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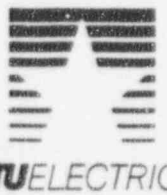

TUELECTRIC

Log # TXX-95006
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IR 94-23
Ref. # 10CFR2.201

January 23, 1995

C. Lance Terry
Group Vice President

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
NRC INSPECTION REPORT NOS. 50-445/94-23; 50-446/94-23
RESPONSE TO NOTICE OF VIOLATION

Gentlemen:

TU Electric has reviewed the NRC's letter dated December 8, 1994, concerning the inspections conducted by Mr. A. T. Gody, Jr., and other inspectors during the period of October 2 through November 12, 1994.

On January 6, 1995, during a telephone conversation with David Graves of your staff TU Electric requested and was granted an extension until January 23, 1995 to respond to the subject violation.

TU Electric hereby responds to the Notice of Violation in the attachment to this letter. The responses provided in the attachment are a summary of actions taken by TU Electric. The details of the root cause analyses, and the corrective and preventive actions are available at the site for your review. Please do not hesitate to contact me, or contact Obaid Bhatty at (817) 897-5839 to coordinate any additional information you may need to facilitate closure of these issues.

Sincerely,

C. L. Terry

OB:tg
Attachment

cc: Mr. L. J. Callan, Region IV
Mr. D. D. Chamberlain, Region IV
Resident Inspectors

95-0730

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P. O. Box 1002 Glen Rose, Texas 76043

REPLY TO NOTICE OF VIOLATION

RESTATEMENT OF VIOLATION A
(445/9423-01; 446/9423-01)

CPSES Technical Specification 6.11.1 states that procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

10 CFR 20.1501(a)(2)(i), (ii), and (iii) states that each licensee shall make or cause to be made surveys that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive material, and the potential radiological hazards that could be present.

Procedure RPI-602, "Radiological Surveillance and Posting," Section 6.1.2, states that non routine surveys should be performed as required to ensure adequate knowledge of radiological conditions prior to, during, and/or after any evolution involving exposure or potential exposure to radiological hazards.

Radiation Work Permit 94000523, Item 4, states that Radiation Protection technicians providing coverage for filter carousal operations shall perform and document necessary surveys in accordance with Procedure RPI-602.

Contrary to the above, on September 26, 1994, radiation protection workers failed to perform and utilize surveys for the filter carousal transfer activities performed in the fuel building. Subsequent surveys indicated contact dose rates of 3.6 R/hr (gamma) and 24 rad/hr (beta).

RESPONSE TO VIOLATION A
(445/9423-01; 446/9423-01)

TU Electric accepts the violation. While adequate surveys for the circumstances were taken to assure worker exposure could be appropriately minimized, the intent of the violation is correct in that the survey results were not adequately incorporated into the pre-job planning process. The information requested is provided as follows:

1. Reason for the Violation

   On September 26, 1994, radioactive contamination present under the filter carousal on top of the transport trailer and on the carousel plug, was inadvertently spread during initial work preparations associated with the transfer of spent filter cartridges into a storage vault.

TU Electric's investigation indicated the primary cause of the event was less than adequate planning. Although, adequate surveys were performed for the situation, the survey results were not adequately incorporated into the pre-job planning process.

2. Corrective Steps Taken and Re.. ts Achieved

The spread of contamination beyond the established work boundaries was initially detected at approximately 11:30 a.m. on September 26, 1994. Spread of contamination was detected very quickly by Radiation Protection (RP) technicians and immediate corrective actions (e.g.,contamination control and decontamination efforts) were effective at controlling the situation and minimizing the impact on plant areas and personnel. Effected plant areas were decontaminated and returned to normal access by 2:40 p.m. on September 26,1994.

3. Corrective Steps Taken to Avoid Further Violations

To preclude future incidents of this nature the following actions have been implemented:

- The radiation work permit (RWP) covering the spent filter carousel unit was revised to provide more specific details associated with the radiological precautions to be followed when performing this task.

- Additional enhancements were incorporated into procedure changes to Radiation Protection Instruction (RPI)-206, Liquid Process Filter Control, which were effective on December 2, 1994. These enhancements define radiological control measures to be taken during the liquid process filter change out and transfer.

It should be noted that filters have subsequently been removed from the filter carousel device utilizing the enhanced RWP and procedures with no radiological problems encountered.

4. Date of Full Compliance

TU Electric is in full compliance.

RESTATEMENT OF VIOLATION B
(445/9423-02; 446/9423-02)

CPSES Technical Specification 6.8.1.a states that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, dated February 1978.

Regulatory Guide 1.33, Appendix A, Item 3, recommends procedures for startup, operation, and shutdown of safety related systems.

1. Procedure OWI-110, Revision 3, "Operation Department Work Control and Clearance Guideline," Step 6.2.6, specifies, in part, that the shift manager, on-shift senior reactor operator, or cognizant supervisor shall review the clearance release to ensure the desired component, subsystem, or system restoration lineup and sequence is correctly specified.

   Procedure SOP-609B, Revision 0, "Diesel Generator System," Step 5.4.3, specifies the steps necessary to fill the jacket water cooling system and align it for service. Specifically, Step 5.4.3.5, states, in part, "If the jacket water cooling system requires filling, then open valves for the selected DG [diesel generator] and allow the standpipe to fill." Step 5.4.3.7 specifies to complete the electrical lineup per Section 2.3 of Attachment 1, which states that the diesel generator jacket water immersion Heater 2-02 feeder breaker should be "OFF" when the system is drained.

   Contrary to the above, on October 27, 1994, a clearance release was approved that was not adequate to ensure the proper diesel generator jacket water cooling system lineup specified in Procedure SOP-609B. This resulted in the auxiliary operator placing the feeder breaker for the jacket water heater in the "on" position, and then placing the jacket water keep warm pump and heater handswitch in the "auto" position. This energized the jacket water heater and the pump with the jacket water cooling system drained and resulted in damage to the jacket water heater.

2. Integrated plant Operating Procedure IPO-003B, Revision 0, "Power Operations," required that power increases between 20 percent and 100 percent be limited to 3 percent per hour.

   Contrary to the above, on May 15, 1993, reactor power was increased at a rate of 9.3 percent per hour.

RESPONSE TO VIOLATION B - EXAMPLE 1
(445/9423-02; 446/9423-02)

TU Electric accepts the violation and provides the following information, as requested:

1. Reason for the Violation

The cause of the event was deemed to be personnel not recognizing that the Emergency Diesel Generator (EDG) 2-02 jacket water system was drained. Additionally, the clearance "special instructions" were vague and did not adequately describe the assumptions used to generate the clearance release (i.e.,the intent for use of the system operating procedure to refill the jacket water heater prior to startup was not evident).

2. Corrective Steps Taken and Results Achieved

Immediate actions were taken to place the EDG 2-02 in the maintenance mode using the system operating procedure. The damaged heaters were replaced.

3. Corrective Steps Taken to Avoid Further Violations

Energizing of the EDG jacket water immersion heater with the jacket water cooling system drained has occurred previously. Corrective actions associated with the previous occurrence included procedure enhancements for the Shift Manager (a licensed senior reactor operator) to determine the position of the immersion heater breaker depending on scope of the work/clearance. Additionally, a sight glass on the jacket water standpipe was added to aid in determining system status.

TU Electric now believes that additional actions to preclude recurrence are required as follows:

(a) Operator Component/System Status Knowledge.

(i) Clearances, when developed or released, will identify in the "note pad" section the planned or expected system/component condition (i.e., drained, filled, energized, deenergized, etc.).

(ii) Clearance releases developed in work control will be reviewed and approved by an SRO.

(iii) A list of work control center and clearance processing center expectations will be generated.

(b) Program/Process Enhancements

(i) For the Emergency Diesel Generator system, clearance tags will be removed and the EDG will be restored using the procedural steps of the system operating procedure.

(ii) The clearances that have been prepared for the upcoming Unit 1 refueling outage (1RF04) will be reviewed with the subject event in mind to preclude future occurrences.

4. Date of Full Compliance

TU Electric is in full compliance. The clearance reviews will be completed prior to start of 1RF04.

RESPONSE TO VIOLATION - EXAMPLE 2
(445/9423-02; 446/9423-02)

TU Electric wishes to point out with respect to this example that the ramp rate limitations contained in procedure IPO-003B are recommended by the fuel vendor for warranty concerns, and not for nuclear safety concerns. As such, TU Electric does not believe that the cited references to Technical Specification 6.8.1.a and Regulatory Guide 1.33 Revision 2 are applicable to the steps in procedure IPO-003B which impose these limitations. Additionally, on May 15, 1993 reactor power was increased at a rate of 9.3 percent during a one hour period. The details of this event, along with actions taken by TU Electric were discussed at length during a management meeting at CPSES on July 8, 1993 [1], and are summarized below.

1. Reason for the Violation

On the evening of May 14, 1993, Unit 2, while in Mode 1, was prepared for power escalation activities at a 3 percent per hour ramp rate. Activities being performed by the on-shift crew were normal. The Unit Supervisor for Unit 2 gave brief instructions to the Reactor Operator and Balance of Plant Reactor Operator to commence power escalation. Subsequent to shift relief on the morning of May 15, 1993, Performance and Test personnel during their review of testing data (power ascension) indicated that the procedurally prescribed 3 percent ramp rate restrictions had been exceeded.

An independent evaluation team was formed to review this event at the request of the Vice President, Nuclear Operation CPSES. The independent evaluation team ascertained the causes of the event as the following: on-shift supervision was less than adequate at all levels; communication between on-shift crew members was less than adequate; work practices (i.e., self-verification and procedure usage) were less than adequate and application of knowledge of integrated plant operation on the Reactor Operator's part was less than adequate.

Based on on-shift observations by the Independent Safety Engineering Group (ISEG) during the preceding 5 months, the causes of this event were concluded to be isolated incidents.

[1] Please refer to NRC letter dated July 13, 1993 from Mr. A. Bill Beach to Mr. W. J. Cahill, Jr., which describes the meeting summary.

2. Corrective Steps Taken and Results Achieved

Appropriate disciplinary actions for the individuals involved were taken.

An evaluation by Reactor Engineering was performed to determine the impact of exceeding vendor recommended power ramp rates. It was concluded that exceeding vendor recommended power ramp rates has the potential for initiating leaks in the fuel cladding (one of the three primary fission product boundaries). The evaluation also concluded that it is unlikely that any fuel leaks will occur in CPSES Unit 2 as a result of the power ramps experienced on May 15, 1993. The power ramp(s) for this event, although outside of vendor recommendations and administrative guidance were within the power ramps for which the plant was designed to operate.

3. Corrective Steps Taken to Avoid Further Violation

Additional actions taken were to: require a power change briefing prior to power charges; utilization of a power change checklist, which defines important parameters to be verified; and reemphasis of management expectation with respect to supervisory oversight and communication.

TU Electric believes the corrective steps taken above will avoid further occurrences. Additionally, no matters of concern with the fuel have been identified through Cycle 1 of Unit 2.

4. Date of Full Compliance

TU Electric is in full compliance.

RESTATEMENT OF VIOLATION C
(445/9423-03; 446/9423-03)

Criterion III of Appendix B to 10 CFR Part 50 requires, in part, that measures be established to assure that applicable regulatory requirements and the design basis, as defined in Section 50.2 and as specified in the license application, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures and instructions. Furthermore, the design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.

Final Safety Analysis Report (FSAR) Section 6.2.2, "Containment Heat Removal Systems," states, in part, that the design of the containment sump trash racks are to preclude clogging of the recirculation lines and any of the system's components. The FSAR further states that the trash rack has a fine screen opening of 0.115 inch which is designed to ensure that the 3/8-inch diameter containment spray nozzle orifices and the grid assemblies in the reactor core will not clog.

Contrary to the above, licensee design control measures did not adequately verify that Unit 1 and 2 containment sump trash racks met design requirements specified in the FSAR prior to operation of both units as evidenced by the discovery of numerous gaps and holes with dimensions that exceeded the FSAR specification of 0.115-inch on November 2, 1994.

RESPONSE TO VIOLATION C
(445/9423-03; 446/9423-03)

TU Electric accepts the violation and provides the following information as requested:

1. Reason for the Violation

   In response to an industry experience report, engineering personnel performed a walkdown of CPSES Unit 2 (which was in its first refueling outage) Containment Sump. The sump screens themselves were configured per design; however, several structural gaps were found in the framework and base which supports the screens. These gaps were larger than the 0.115-inch screen mesh size addressed in the FSAR. The largest gap was approximately 0.375-inch by 1.25-inch.

A review of the design, installation, and inspection documents was performed. It was determined that adequate emphasis was provided to assure proper sump screen size; however, guidance for construction and inspection of the sump support structure did not assure that structural gaps would not exceed the 0.115 inch design requirement.

2. Corrective Steps Taken and Results Achieved

An evaluation was performed by Westinghouse for the gap sizes. It was concluded that the gaps would not prevent the Unit 1 & 2 residual heat removal systems, high head safety injection or containment spray systems from performing their safety functions. Since Unit 2 was in its refueling outage, the sumps were repaired to restore the original design conservatism. The Unit 1 containment sump structures were also inspected, and similar conditions were noted.

3. Corrective Steps Taken to Avoid Further Violations

Unit 2 sump structures have been repaired, and Unit 1 sump structures will be repaired during its up coming refueling outage. Therefore, no further actions are warranted.

4. Date of Full Compliance

CPSES Unit 2 is in full compliance. CPSES Unit 1 gaps will be repaired during its upcoming refueling outage.