TUELECTRIC

Log # TXX-88359
File # 10010
Ref. # 10CFR50.34(b)

April 22, 1988

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
FSAR AMENDMENT 70 DESCRIPTION

Gentlemen:

Amendment 70 of the CPSES FSAR was transmitted to you under a separate cover letter, TXX-88360, dated April 22, 1988.

Amendment 70 provides updates, revisions, additions, clarifications and editorial changes. The following is a summary of the detailed description of this amendment:

1) Update of several figures to show as-built layout of various structures and pipe-runs.

2) The TU Electric position on Regulatory Guide R.G. 1.39 "Housekeeping Requirements for Water-Cooled Nuclear Power Plants" revised to clarify site wide criteria for Housekeeping control for design, construction and operational phase activities.

3) Discussion of the design to meet ATWS and AMSAC guidance was added.

4) Change in the pressure vessel surveillance schedule to be consistent with Westinghouse recommendations.

5) Discussion of Inconel-600 with respect to corrosion and water treatment.

6) Update of applicability matrices for various GDCs, Regulatory Guides and IEEE Standards which are used as guidance or acceptance criteria for instrumentation and controls.

7) Add current transformers to list of acceptable devices for isolating Class 1E primary circuits from non-Class 1E secondary circuits based on testing.





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8) Clarification of MSIV Actuator design criteria to reflect ASME B&PV Code Section VIII.

9) Discussion of test method for the new fire water supply system.

10) Revise the SGTR accident analysis description.

11) Discussion of qualified operations personnel performing an independent verification of the status of safety related components which are being returned to service.

A page-by-page description of the changes is attached. The number in parenthesis behind each description (e.g., (88-369)) is the identification number for the FSAR Change Request (if any) that was used to process that portion of this amendment. Pages which do not have changes but are included in the amendment (either because they are on the opposite side of the sheet from a page that was changed or because a change shifted the existing material to another page) are not discussed in the attachment.

Very truly yours,

W. G. Counsil

GLB/grr
Attachment

c - Mr. R. D. Martin, Region IV
CPSES Resident Inspectors, (3)

CPSES FSAR AMENDMENT 70
DETAILED DESCRIPTION

| FSAR Page (as amended) | Description |
|---|---|
| 1A(B)-16 | Revision: CPSES' position on Regulatory Guide 1.39 is updated to provide a site wide criteria for Housekeeping control for design, construction and operational phase activities. Previously our commitment applied to operational phase activities only. (88-290) |
| 4.3-10 | Update: Reflects that the ATWS rule, 10CFR50.62, provides the design requirements for the CPSES AMSAC equipment. (88-309) |
| 5.3-11 | Revision: Changes the pressure vessel surveillance capsule withdrawal schedule to be consistent with the Westinghouse recommendations, ASTM-E185-82 and CPSES tech spec or Tech Spec Improvement Program (Item 2.2). (88-355) |
| 5.4-16 | Correction: Deletes the words "and pitting type" from the description of the corrosion resistance of Inconel-600. Inconel-600 has only moderate resistance to pitting corrosion in severe water chemistries. (88-279) |
| 5.4-18 | Update: Provides an updated description of a dated discussion of plants with Inconel-600, which have operated with AVT water treatment, and describes how this operating experience has been considered at CPSES. (88-279) |
| 6.2-93 | Correction: Adds the valve arrangements 1, 6 and 29 for containment penetrations that have been provided with thermal relief valves as shown in FSAR Fig. 6.2.4-1 sheets 1, 2 and 8. These configurations were inadvertently not included in Amendment 66. (88-184) |

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| FSAR Page (as amended) | Description |
|---|---|
| 6.5-29 | Correction: This change corrects the method used to assure the design flowrates of the chemical eductors and spray nozzles. Note: These devices are "performance tested" not "calibrated". (88-356) |
| Table 7.1-1 and Tables 7.1-2.2 thru 7.1-2.7 | Addition: Adds GDC-30, 63 and 64 to the listing of applicable criteria. These GDC's were discussed in the specific sections of the FSAR, but were not reflected in this table. This change brings the table into agreement with other sections of the FSAR. (88-146) |
| Tables 7.1-2.2 thru 7.1-2.7 | Editorial: Table 7.1-2 was reformatted and reissued as Tables 7.1-2.2 through 7.1-2.7 to improve readability. (88-146) |
| Table 7.1-2.3 | Addition: Adds GDC-44 and 46 to "Control Room Air Conditioning" requirements because the GDC applies to systems which transfer heat from safety systems to an ultimate heat sink and the Control Room Air Conditioning system performs that function. (88-146)<br><br>Addition: Adds GDC-40 to "Component Cooling Water" and "ESF Ventilation" because the GDC applies to associated cooling systems which include CCW and ESF Ventilation (room coolers). (88-146)<br><br>Addition: Adds GDC-46 to "ESF Ventilation" and "Service Water Intake Structure HVAC" because the GDC applies to these systems. (88-146) |
| Table 7.1-2.6 | Addition: Adds GDC-30 for "Reactor Coolant Pressure Boundary (RCPB) Leak Detection" and "Interlocks RCS Pressure Control" to cover the GDC applicable to instrumentation and controls for Reactor Coolant pressure boundary functions. (88-146) |

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| FSAR Page (as amended) | Description |
|---|---|
| Table 7.1-2.6 (Cont'd) | Addition: Adds GDC-63 for "Process and EFF Radiation Monitors" and GDC-64 for "Accident Monitors" and "Process and EFF Radiation Monitors" to cover the GDCs applicable to these instrumentation and controls. (88-146) |
| | Addition: Adds GDC-4 and 5 to "Process and EFF Radiation Monitors" because of the design change that upgrades the control room intake radiation monitor from non-Class 1E to Class 1E and redundant. (88-146) |
| | Addition: Adds GDC-34 to "RHR Isolation Valves" to cover design provisions to assure the RHR system remains functional. (88-146) |
| | Addition: Adds GDC-35 and 37 to "Accumulator MOVs" since these are integral ECCS components including their instrumentation and controls. (88-146) |
| Table 7.1-2.3 | Addition: Adds the "UPS Ventilation" to ESF Support and Hot Standby Support to reflect the addition of the system to the design in earlier FSAR amendments. (88-146) |
| Table 7.1-2.4 | Addition: Adds the "ESF Ventilation" to Hot Standby support. This appears to have been an oversight in the original table. (88-146) |
| Table 7.1-2.5 | Deletion: Deletes the ESF status monitoring column which has been incorporated into accident monitoring. (88-146) |
| | Clarification: Adds a note to "SSII" to reference the section where it is discussed in more detail. (88-146) |
| | Deletion: Deletes the "Post" from "Post Accident Monitors" to reflect post-TMI changes. (88-146) |

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| FSAR Page (as amended) | Description |
|---|---|
| Tables 7.1-2.2 thru 7.1-2.7 | Addition: Discusses applicability of Regulatory Guides 1.45, 1.89, 1.100 and 1.105 and IEEE Stds. 323, 344, and 384 to the "Process and Effluent Radiation Monitors" of Table 7.1-2.6 due to design development that has resulted in upgrading some monitors and adding others that are Category I. As a result, safety-related criteria are being identified as being applicable. (88-146) |
| Table 7.7-1 | Addition: Generic Letter 85-06 requires all Westinghouse near term operating licensees to establish quality assurance requirements for the non-safety related ATWS equipment which will meet 10CFR50.62 paragraph (c)(1) requirements. The addition of the AMSAC C-20 interlock to this Table reflects this design change. (88-277) |
| 7.8-1 thru 7.8-14 | Addition: 10CFR20.62 (ATWS rule) entitled "Requirements for reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants," requires all PWR facilities to have equipment (ATWS Mitigation System Actuation Circuitry (AMSAC)) that is diverse/independent from the existing reactor trip system that will automatically initiate a turbine trip and the auxiliary feedwater system following an anticipated operational occurrence without a reactor trip. In addition, Generic Letter 85-06 was issued to provide QA guidance for the non-safety related ATWS equipment. This Section of the FSAR is being added to describe CPSES's compliance with the ATWS rule and the Generic Letter. (88-277) |
| Figure 7.8-1 | Addition: Adds the AMSAC Actuation Logic System diagram to indicate the system logic from input to output. (88-277) |
| 8.3-51 | Revision: Adds current transformers to the list of acceptable isolation devices for isolation between Class 1E primary circuits and non-Class 1E secondary circuits based on testing. (88-357) |

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| FSAR Page (as amended) | Description |
|---|---|
| 8.3-95 | Addition: Adds reference to the test report that supports the use of current transformers as isolation devices. (88-357) |
| Table 8.3-1A (Sheet 3) | Correction: Corrects description of isolation transformers to "TXEC 3 & 4", since they are not solely used for the Technical Support Center and the transformer equipment number is more specific. (88-294) |
| 9.4-9 | Clarification: Clarifies that the control room humidity is maintained at 50% during normal modes of operation (see table 9.4-12) and below 50% during emergency conditions, based on Revised Calculations) (88-312) |
| Figure 9.4-12 | Revision: Revises the figure to reflect the following changes as per as-built design:<br>1. Adds thermal relief valves on safety-related chilled water recirculation pump discharge lines for the overpressure protection of the system. (88-068)<br>2. Misc. technical changes such as relocation of lines, valves and pipe breaks, and addition of flanges and vent valves. (88-056) |
| Figure 9.4-15 | Revision: Adds the drain lines for the UPS Air Conditioning System cooling coil to correct drafting error. (88-066) |
| 9.5-139 | Revision: Deletes "30% diesel generator set efficiency" and replaces it with "Fuel Consumption based on test data". No basis can be identified for the assumption used for 30% diesel generator set efficiency. Actual basis is the test data, which is 3450 gallons to permit periodic testing of diesel generator. (88-311) |

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| FSAR Page (as amended) | Description |
|---|---|
| 9.5-142 | Revision: Changes "15% add for fuel-oil storage tank capacity" to 3450 gallon margin based on test data. (See page 9.5-139 above)<br>(88-311) |
| 9.5-143 | Revision: Adds tech spec requirements for diesel generator fuel oil requirements in addition to the requirements of ASTM D 975.<br>(88-311) |
| 9.5-144 | Revision: Changes the reference from "IEEE 308-1971" to "NRC R.G. 1.137" for the fuel oil storage capacity of seven days of operation of the diesel generator at rated load.<br>(88-311)<br><br>Changes the "15% margin" to "3450 gallons margin". (See page 9.5-142 and page 9.5-139 above.)<br>(88-311) |
| Table 9.5-11 | Revision: Changes the "15% margin" to "3450 gallons margin". (See page 9.5-142 and page 9.5-139 above.)<br>(88-311) |
| 10.3-3 | Revision: MSIV actuators are designed to ASME B&PV Code Section VIII in lieu of ASME B&PV Code Section III as per ASME Code Section III subarticles NA-1120 & NA-1130<br>(88-055) |
| Table 10.3-4 | Revision: Revises the actuator Code design as per page 10.3-3 (above).<br><br>SER Section 10.3.1, Page 10-4, Para 2 states that, "MSIV actuators are designed to Quality Group B". The MSIV actuators are designed to ASME B&PV Code Section VIII.<br>(88-055) |
| Table 14.2-2 (Sheets 2 and 63) | Addition: Adds AMSAC to this Table to indicate the preoperational testing requirements for the system.<br>(88-309) |

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| FSAR Page (as amended) | Description |
|---|---|
| Table 14.2-2 (Sheets 8 and 8A) | Correction: Provides description of test methods for new fire water supply system. References Fire Protection Report instead of Technical Specifications for acceptance criteria. Organizational title update. (88-295) |
| 15.0-10 | Editorial: Modifies to be consistent with SGTR assumptions. (88-149) |
| 15.0-24 and 15.0-25 | Addition: Adds description of RETRAN02, the computer code used for the SGTR analysis. Ref: RXE-88-101 (88-149) |
| 15.0-27 | Addition: Adds reference for RETRAN02, the computer code used for the SGTR analysis. (88-149) |
| Table 15.0-2 (Sheet 5) | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Table 15.0-3 | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Table 15.0-4 (Sheet 1) | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Table 15.0-6 (Sheet 5) | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Figure 15.0-24 | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| 15.6-6 thru 15.6-18 | Revision: Provides accident description, analysis methods, and analysis results for the revised design basis steam generator tube rupture analysis. REF: RXE-88-101. (88-149) |

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| FSAR Page (as amended) | Description |
|---|---|
| 15.6-46 | Addition: Reference to SGTR analysis, RXE-88-101. (88-149) |
| Table 15.6-1 (Sheet 1) | Addition: Adds sequence of events for revised design basis steam generator tube rupture analysis. (88-149) |
| Table 15.6-2 | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Table 15.6-3 | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| Figure 15.6-3 thru Figure 15.6-3C | Revision: Modifies to reflect revised design basis steam generator tube rupture analysis. (88-149) |
| 15.8-1 and 15.8-2 | Update: Provides additional information and references concerning the ATWS rule and Westinghouse design documents. (88-277) |
| Table 17A-1 (Sheets 38 and 47) | Addition: Generic Letter 85-06 requires all Westinghouse near term operating licensees to establish quality assurance requirements for the non-safety related ATWS equipment which will meet 10CFR50.62 paragraph (c)(1) requirements. The addition of the AMSAC equipment to this Table satisfies the above requirements. (88-270) |
| I.C.9 | Addition: Allows the independent verification of safety related components, being removed from and restored to service, to be completed by a licensed operator or an auxiliary operator qualified in that specific area. This change permits better utilization of available manpower while maintaining assurance of proper system status afforded by an independent verification. Previously the FSAR had not identified who should perform the independent verifications but plant procedures and SSER-1 had identified licensed operators. (88-169) |

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| FSAR Page (as amended) | Description |
|---|---|
| 423-45 | Update: The Q423.20 and R423.20 sections have been updated to cross reference the CPSES's summary test program for ATWS (Sections 7.8 and 14.1). Prior to this update, the effects of ATWS were not described in the FSAR. (88-309) |