May 21, 1993

Docket Nos. 50-445
and 50-446

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Mr. William J. Cahill, Jr.
Group Vice President, Nuclear
TU Electric Company
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Cahill:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 15 AND 1 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 - COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M84931, M84934, M86182, AND M86190)

The Commission has issued the enclosed Amendment Nos. 15 and 1 to Facility Operating License Nos. NPF-87 and NPF-89 for the Comanche Peak Steam Electric Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TSs) in response to your applications dated November 10, 1992. By letter dated March 17, 1993, TU Electric supplemented the applications to include Unit 2.

The amendments change the technical specifications to (1) reduce the frequency of turbine valve testing from every 14 days to every 6 weeks and to reduce the frequency of direct observation of the operation of those valves from every 31 days to every 6 weeks, and (2) remove the 40-month surveillance requirement to disassemble and surface inspect one low pressure stop valve and one control valve.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original Signed By

Brian E. Holian, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV/V

Enclosures:
1. Amendment No. 15 to NPF-87
2. Amendment No. 1 to NPF-89
3. Safety Evaluation

cc w/enclosures:
See next page

*For previous concurrences see attached ORC

OFFICE	PDIV-2/LA	PDIV-2/PM*	PDIV-2/PM	OGC*	PDIV-2/D
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DATE	5/21/93	5/21/93	5/21/93	5/12/93	5/24/93

DF01

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Honorable Dale McPherson
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.*

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 1

DOCKET NO. 50-445

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 15
License No. NPF-87

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment by Texas Utilities Electric Company (TU Electric) acting for itself and as agent for Texas Municipal Power Agency (licensees) dated November 10, 1992, as supplemented by letter dated March 17, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

*The current owners of the Comanche Peak Steam Electric Station are: Texas Utilities Electric Company and Texas Municipal Power Agency. Transfer of ownership from Texas Municipal Power Agency to Texas Utilities Electric Company was previously authorized by Amendment No. 9 to Construction Permit CPPR-126 on August 25, 1988 to take place in 10 installments as set forth in the Agreement attached to the application for Amendment dated March 4, 1988. At the completion thereof, Texas Municipal Power Agency will no longer retain any ownership interest.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-87 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendix A, as revised through Amendment No. 15, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Suzanne C. Black

Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 21, 1993

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.*

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 2

DOCKET NO. 50-446

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 1
License No. NPF-89

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment by Texas Utilities Electric Company (TU Electric) acting for itself and as agent for Texas Municipal Power Agency (licensees) dated November 10, 1992, as supplemented by letter dated March 17, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

*The current owners of the Comanche Peak Steam Electric Station are: Texas Utilities Electric Company and Texas Municipal Power Agency. Transfer of ownership from Texas Municipal Power Agency to Texas Utilities Electric Company was previously authorized by Amendment No. 8 to Construction Permit CPPR-127 on August 25, 1988 to take place in 10 installments as set forth in the Agreement attached to the application for Amendment dated March 4, 1988. At the completion thereof, Texas Municipal Power Agency will no longer retain any ownership interest.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 1, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TU Electric shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Suzanne C. Black

Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 21, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS. 15 AND 1

FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89

DOCKET NOS. 50-445 AND 50-446

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE	INSERT
3/4 3-51	3/4 3-51
	3/4 3-52

INSTRUMENTATION

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one Turbine Overspeed Protection System shall be OPERABLE.

APPICABILITY: MODES 1, 2*, and 3*.

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam line inoperable and/or with one stop valve or one control valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam line(s) or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.2 The above required overspeed protection system shall be demonstrated OPERABLE:

a. At least once per 6 weeks by cycling each of the following valves through at least one complete cycle from the running position using the manual test or Automatic Turbine Tester (ATT):

1) Four high pressure turbine stop valves,
2) Four high pressure turbine control valves,
3) Four low pressure turbine stop valves, and
4) Four low pressure turbine control valves.

b. At least once per 14 days by testing of the two mechanical overspeed devices using the Automatic Turbine Tester or manual test.

c. At least once per 6 weeks by direct observation of the movement of each of the above valves through one complete cycle from the running position.

*Not applicable in MODES 2 and 3 with all main steam line isolation valves and associated bypass valves in the closed position.

3/4.3.4 TURBINE OVERSPEED PROTECTION

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 40 months by disassembling at least one high pressure turbine stop valve and one high pressure control valve and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws. If unacceptable flaws are found, all other valves of that type shall be inspected.

e. At least once per 40 months by visually inspecting the disks and accessible portions of the shafts of at least one low pressure turbine stop valve and one low pressure turbine control valve and verifying no unacceptable flaws are found. If unacceptable flaws are found, all other valves of that type shall be inspected.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 15 AND 1 TO

FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.

COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By letters dated November 10, 1992, Texas Utilities (TU) Electric Company, (the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. NPF-87) for the Comanche Peak Steam Electric Station, Unit 1. By letter dated March 17, 1993, the licensee expanded the application to include Comanche Peak Steam Electric Station (CPSES), Unit 2 (Facility Operating License No. NPF-89). The proposed amendments would change the technical specifications by revising the surveillance test frequency and the frequency of direct observation of the operation of the turbine stop and control valves associated with the turbine overspeed protection. Surveillance testing of these valves is necessary to assure the performance of their safety function in protecting against the consequences of a turbine missile ejection accident. The current CPSES Surveillance Requirement 4.3.4.2.a for Technical Specification 3/4.3.4, "Turbine Overspeed Protection," requires that once per 14 days each high and low pressure turbine stop and control valve be cycled using the manual test or automatic turbine tester. Surveillance Requirement 4.3.4.2.c requires that once per 31 days the movement of the turbine valves be directly observed through one complete cycle. The licensee requests a change to these two surveillances to reduce the frequency of the above testing to once every six weeks.

The proposed amendments would also change the technical specifications by removing the 40-month surveillance requirement to disassemble and surface inspect the low pressure (LP) turbine stop and control valves. The licensee proposes to replace the requirement to disassemble one LP stop valve and one LP control valve and perform a visual and surface inspection, with a requirement to perform a visual inspection of the disk and accessible portions of the shaft. This request does not change the requirements for the high pressure (HP) stop and control valves. The current CPSES Surveillance Requirement 4.3.4.2d for Technical Specification 3/4.3.4, "Turbine Overspeed Protection," requires that the overspeed protection system shall be demonstrated operable, "At least once per 40 months by disassembling at least one of each of the above (turbine) valves and performing a visual and surface inspection of valve seats (if applicable), disks, and stems and verifying no unacceptable flaws." Surveillance Requirement 4.3.4.2d monitors the integrity

of the seats, disks, and stems of the turbine valves. The purpose of this inspection is to confirm that no unacceptable flaws have been introduced into the valves which could preclude the valve from performing its intended function.

2.0 TURBINE VALVE TESTING

Background

Surveillance requirement 4.3.4.2.c ensures that all turbine steam inlet valves are capable of closing to protect the turbine from excessive overspeed which could generate potentially damaging turbine missiles. The control room operator performs the test by moving the turbine valve stem from the position prior to testing, to full closed and returning the valve stem to the original position, with an observer at the valve. The test verifies freedom of movement of the valve components and is beneficial for detecting improper valve operation and identifying any outward indication of valve condition.

The reactor power level must be reduced to approximately 85 percent to conduct the test because of the reduced steam flow to the turbine generator and the limited steam that can bypass the turbine. The reactor power level reduction is achieved by adding boron to the reactor coolant system and by inserting control rods. When the turbine stop and control valves have been tested, reactor power is returned to pretest conditions by withdrawing control rods and by removing the added boron by processing the reactor coolant in the chemical and volume control system. The cycling of the reactor power as described above (1) places an unnecessary thermal and pressure cycle on the plant equipment, (2) increases the amount of liquid and solid radioactive waste from reactor coolant processing to remove the added boron which results in an increase in personnel exposure, and (3) places the plant in a more vulnerable position where an inadvertent reactor trip is more likely during the transient power reduction and increase. In addition, later in core life, these power swings cause axial power fluctuations and divergent xenon oscillations during which core power stabilization becomes more difficult. Based on the above, the margin of safety is reduced when the plant is undergoing turbine valve testing.

The present requirements for the test frequency are based on historical turbine vendor recommendations. The test interval was developed for fossil units and carried over to nuclear units due to the similarity of design. Fossil units and early pressurized water reactor (PWR) units utilized phosphate chemistry. This type of chemistry control contributed to a much greater particulate content in steam and higher incidence of valve inoperability due to phosphate carryover. With the use of all-volatile chemistry, such as used at CPSES, the failures attributed to particulate carry-over have been significantly reduced.

TU Electric approached Siemens, the manufacturer of the CPSES turbines for Units 1 and 2, to determine if a longer surveillance test interval would be appropriate. Siemens performed a quantitative evaluation of the probability

of failure of the overspeed trip and protection system as a function of the turbine stop and control valve test interval. In a letter dated June 11, 1992, Siemens recommended a one-month testing interval, or a six-week testing interval providing that additional monitoring sensors are installed in each stop valve, and that no degradation of closing time is observed. TU Electric discussed the proposed valve monitoring program with Siemens, and determined that only the high pressure stop and control valves would require monitoring. TU Electric intends to install the additional monitoring sensors prior to implementation of a six-week testing interval. The data from these sensors can be trended to detect valve closing time degradation, as input to scheduled maintenance.

In a letter to Westinghouse Electric Corporation, dated February 2, 1987, the NRC staff provided generic turbine failure guidelines for total turbine missile generation probabilities to be used for determining (1) frequencies for turbine disc ultrasonic inspections, and (2) maintenance and testing schedules for turbine control and overspeed protection systems. In this letter, the staff provided guidance to limit the maximum probability of generating turbine missiles. For favorably oriented turbines, such as CPSES, the acceptance criterion for the generation of turbine missiles is a probability of less than 10^{-4} per year.

Allis-Chalmers Power Systems, Inc. (now Siemens) Engineering Report No. ER-504, "Probability of Turbine Missiles," references a two-week testing interval and historical failure rate data gathered through January 1, 1975, in calculating valve failure probabilities. The failure probability of HP/LP stop and control valves was calculated to be 3.93×10^{-6} and 8.53×10^{-6} per year, respectively. Based on the above, the overall turbine missile probability was determined to be approximately 2.1×10^{-6} per year. The CPSES turbine missile probability is significantly lower than that required by NRC guidance. In ER-504, the methodology of the failure probability analysis is based on IEEE Standard 352-1972 (ANSI-N41.4), entitled "General Principles of Reliability Analysis of Nuclear Power Generating Station Protection Systems." Throughout the study, conservative assumptions and methods were used consistent with safety analysis such that the final result may be considered a safe estimate of probability of >120 percent speed failure of an LP rotor.

The failure probability of the overspeed protection system was calculated for two different modes of operation; first, for turbine-generator load operation and, secondly, for operation of the unit in the speed control mode when the generator is connected to the electrical system. All exclusive failure paths leading to a >120 percent speed event have been taken into account, therefore, the computed total failure probability considers all component failure combinations which could lead to this overspeed event. Although such an event would not necessarily result in an LP rotor failure, it is conservatively assumed for purposes of this analysis that the failure probability is equal to the overspeed probability.

An analysis of the system components and elements was done to define the failure rates of each element. The approach was to calculate the failure rates based on actual operating experience using a statistical confidence level of 95 percent. The failure probability of all components is assumed constant over the whole life of the unit based upon periodic testing and maintenance which continually checks and repairs or replaces components to maintain the reliability of the system. It is assumed that there would be no significant wear-out effects. In ER-504, it is noted that in their study of operating experience and past failures going back to 1958, there is no indication of any component wear-out trends or effects.

Subsequently, Siemens reevaluated the failure rate data for Siemens turbine stop and control valves using information gathered through 1984. Siemens concluded that based on the reevaluation, increasing the test interval to six weeks would not increase the failure rate of these valves to a level as high as that assumed in ER-504.

Evaluation

Based on a given failure rate, the probability of failure between tests increases as the test interval increases from two to six weeks. However, the turbine vendor, Siemens, has identified that the failure rate for its high pressure turbine stop and control valves has decreased based on a review of operational history through 1984.

In addition, the licensee committed to install additional monitoring sensors prior to implementing the six-week test interval. The sensors would monitor valve closing time which can be trended to detect valve degradation. This data may allow the licensee to schedule maintenance which would prevent an impending valve failure.

Based on the above factors, the probability of failure of the stop and control valves do not significantly change from the value used in the report ER-504. The staff found that the report provided a conservative estimate of the probability of failure of an LP rotor due to overspeed and that the calculated probability of rotor failure at CPSES satisfies NRC guidance for turbine missile generation of 1×10^{-4} per year, for a favorably oriented turbine. The increased valve test interval also reduces the probability of the power reduction involved in valve testing initiating a transient which challenges safety systems.

Conclusion

Based on the above, the staff finds that reducing the surveillance test frequency, and the frequency of direct observation of the operation of the turbine stop and control valves, associated with turbine overspeed protection is acceptable.

3.0 TURBINE VALVE INSPECTION

Background

Surveillance Requirement 4.3.4.2d currently affects both HP and LP stop and control valves. The HP stop and control valves are designed to control the speed and load of the main turbine generator. The HP stop valves are designed for extremely fast closing to isolate the turbine, preventing it from reaching a potentially destructive overspeed condition. Should a destructive turbine overspeed occur, the generation of turbine missiles from burst type failure of the low pressure blades and/or disks is the resulting potential accident. Each HP stop and control valve has a stem, disk, and a seat. The valves are designed such that they can be removed from the lines and disassembled for the required inspection.

The LP stop and control valves are butterfly valves, with the flapper and the shaft as the primary components. Each LP flapper is a casting which is fabricated in one piece from 18CrMo910 steel. The flapper rotates within the pipe 90 degrees to an open or closed position. The flapper does not make metal to metal contact that would cause stresses or strains to the material. There is a nominal 2mm gap between the edge of the flapper and the inside pipe wall. There is no seat in the butterfly valve. Siemens conducts a surface crack examination of the flapper. Since this is a casting, a magnetic particle test is performed. In addition, Siemens performs a hardness test. The LP stop and control valve shaft is made from a solid piece of bar stock material type 21CrMoNiV47. The shaft is inserted through the flapper and secured with 6 locking pins. The components are assembled at the factory and the shaft has never been removed for any reason at any operating plant. The LP valves are welded into the hot reheat steam pipe which makes it extremely difficult to disassemble and inspect. The temperature and pressure of the hot reheat steam is relatively low, and no metal creep or metal fatigue of the flapper or shaft is expected to occur. The design differences between HP and LP stop and control valves make it impractical to disassemble and perform a surface examination of the LP valves.

The licensee claims that the existing surveillance appears to be taken directly from the original Standard Review Plan (SRP), NUREG-75/087, Section 10.2. Although the specific basis for this surveillance is not specifically stated, it is presumed that it is based on historical failure rates for these valves prior to the initial issuance of the SRP (primarily fossil plants and early nuclear plants). In this time frame, most of the power plants utilized phosphate chemistry and were subject to particulate carryover. The collection of particulate carryover and corrosion products in valve crevices such as disk to shaft interfaces created a potential for caustic stress corrosion/cracking. In addition, some plants used an LP valve design incorporating a valve seat which caused metal-to-metal contact, subjecting the valve components to higher stresses. The existing surveillance (especially the disassembly and surface examination) is capable of detecting such cracks.

Particulate carryover and subsequent caustic corrosion of valve components has been significantly reduced since the development of all-volatile chemistry treatment such as that used at CPSES. Also, the LP butterfly valve design does not have a seat (there is a nominal 2mm gap between the flapper and the inside pipe wall) so that there are no stresses associated with disk-to-seat contact during valve closure.

In a letter dated January 23, 1990, Utility Power Corporation (now Siemens), recommended that one LP stop valve and one LP control valve be inspected during an outage on the steam turbine. The HP stop and control valves normally have been liquid penetrant tested to check for cracks or surface indications in the stem and seat. The recommended LP control valve inspection includes only a visual examination of the flapper from inside the hot reheat pipe and a visual examination of the shaft after the steam seals and bearings have been removed. If any unacceptable flaws are found during this examination, further testing would be recommended.

In a Siemens letter dated February 14, 1992, it was noted that of the 32 nuclear plants around the world that operate with Siemens steam turbines, all have butterfly valves of similar construction to the valves at Comanche Peak. The normal inspections as described above have been performed through the 18 years that the Siemens steam turbines have operated. No further inspection beyond the normal visual inspection have been conducted. The butterfly valves of these 32 Siemens steam turbines have performed without problems to the shafts or flappers. Siemens believes that disassembly and surface inspection of the LP valves is not warranted and does not provide any significant improvement in the reliability of the overspeed protection system. As a result of the good performance and design of the LP stop and control valves, Siemens does not anticipate changing the extent of visual examinations in the future.

In Supplement 6 to NUREG-0797, "Safety Evaluation Report Related to Operation of Comanche Peak Steam Electric Station, Units 1 and 2," November 1984, Table 10.1, the NRC staff has provided guidance to limit the maximum probability of generating turbine missiles. For favorably oriented turbines, such as CPSES, the acceptance criterion for the generation of turbine missiles, is a probability of less than 10^{-4} per year. In Allis-Chalmers Power Systems, Inc. (now Siemens), Engineering Report No. ER-504, Siemens calculated the probability of turbine missiles to be 2.1×10^{-7}, which is significantly below the NRC acceptance criterion. The report did not take credit for disassembly and surface inspection of the turbine LP valves, and thus the removal of this portion of the surveillance will not have any impact on the calculated probability of generating turbine missiles.

Evaluation

The disassembly of the LP stop and control valves is physically possible, but would be extremely difficult and has the potential to damage the valve. Since the LP butterfly valve design does not have a seat and there are no stresses associated with disk-to-seat contact during valve closure, the benefit from

the disassembly and surface inspection is minimal, and could easily be overcome by the potential for valve damage. As previously described, these valves are welded in place and cannot be removed. Disassembly would require entry into the 48" reheat piping and constructing scaffolding inside the pipe to support the flapper in place. With the flapper immobilized, the shaft could then be removed. The flapper surface examination would have to be conducted from within the pipe. Since the in-place disassembly procedure has never been conducted for any Siemens turbine, there is significant potential for valve damage during the shaft removal and installation, as well as personnel hazard due to the weight of the flapper, the confined conditions inside the reheat pipe, and the lack of support surfaces for erection of scaffolding.

Conclusion

Based on the above evaluation, the staff concludes that not only is the disassembly and surface inspection of the LP stop and control valves unnecessary to adequately prevent turbine missiles, but the disassembly is a personnel safety hazard and has the potential to damage the valve. Therefore, the licensee has committed to replace the requirement to disassemble one LP stop valve and one LP control valve and perform a visual and surface inspection, with a requirement to perform a visual inspection of the disk and accessible portions of the shaft. The licensee has demonstrated compliance with Supplement 6 of NUREG-0797 and the requirements of General Design Criterion (GDC) 4. Therefore, the proposed amendment is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 19489 and 58 FR 19489). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: V. Ordaz

Date: May 21, 1993