



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 95 AND 82 TO

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

STP NUCLEAR OPERATING COMPANY

DOCKET NOS. 50-498 AND 50-499

SOUTH TEXAS PROJECT, UNITS 1 AND 2

1.0 INTRODUCTION

By application dated August 28, 1998, STP Nuclear Operating Company, et.al., (STPNOC, the licensee) requested changes to the Technical Specifications (TSs) (Appendix A to Facility Operating License Nos. NPF-76 and NPF-80) for the South Texas Project, Units 1 and 2 (STP). The proposed changes would modify TS 4.0.5 to state that the inservice testing requirement for exercise testing in the closed direction for specified Unit 1 containment isolation valves shall not be required until the next plant shutdown to Mode 5 of sufficient duration to allow the testing or until the next refueling outage scheduled in March 1999.

2.0 BACKGROUND

During a review of the Inservice Test Plan, STPNOC determined that eight containment isolation valves had not been tested in the required position for performing a specific safety function (closed) within the required testing periodicity of the Section XI ASME Code. These valves have met Section XI ASME Code requirements for testing in the open direction. These valves have been historically tested in the closed direction by performance of local leak rate testing required by Appendix J of 10 CFR Part 50. STPNOC received a license amendment to the TSs on August 13, 1996, for allowing performance-based containment leak testing per Appendix J, Option B of 10 CFR Part 50. Leak rate performance testing allowed extension of the local leak rate test frequency to periodicities beyond each refueling cycle, and the frequency of the appropriate plant surveillances for leak rate testing was extended for the affected valves. However, an alternate test method to test the valves in the shut direction was not developed to meet the Section XI ASME Code test frequency requirements. When the change was made to implement Appendix J, Option B of 10 CFR Part 50, which allowed extension of local leak rate testing periodicities, the change process did not adequately evaluate the impact of Section XI ASME Code testing requirements. In addition, STPNOC stated that the required testing on these eight valves (listed in Attachment 6 of the August 28, 1998, application) cannot be performed with the unit at power.

3.0 DISCUSSION

STPNOC states that the purpose of containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. The valves for which this change is being requested tested satisfactorily in the closed position in accordance with ASME Code requirements the last time the test was performed. Performance-based local leak rate testing results have demonstrated the leak tightness of these valves such that leak rate testing periodicities have been extended beyond the periodicity of a normal refueling cycle. In addition, maintenance history has demonstrated reliable performance of these valves (a summary table of recent local leak rate test results is included in Attachment 7 of the application). Also, STPNOC stated that the potential failure of these valves to close has no impact on core damage frequency and the impact of these valves, assuming complete failure, from a large early release standpoint is minimal. Based on the above, STPNOC concluded that in the event containment isolation is necessary, the subject valves will have a high probability of performing their intended safety function and the safety significance of the proposed action is minimal.

4.0 EVALUATION

The ASME Code requires that check valves be exercised to their safety position every three months. If testing is impractical at power it may be deferred to cold shutdowns or refueling outages. Certain containment isolation valves may not be capable of verifying their closed safety function quarterly because they do not have remote position indication and are located inside of containment or at other inaccessible locations. These check valves may also lack design provisions for testing at any plant condition to verify closure. Staff guidance included in NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," Section 4.1.4, states that if no other practical means is available, it is acceptable to verify that check valves are capable of closing by performing leak-rate testing, such as local leak rate testing in accord with 10 CFR Part 50 Appendix J, at each reactor refueling outage. The licensee had previously performed closure testing of the eight check valves by using the 10 CFR Part 50 Appendix J test program for containment isolation valves as described in the staff guidance.

In evaluating the operational readiness of the eight check valves, the staff examined Appendix J leak rate test data provided by the licensee from the previous three refueling outages. All valves were previously leak rate tested in accordance with Appendix J in May of 1996 during the previous Unit 1 refueling outage and passed their acceptance criteria by a significant margin. Historical data from the prior two tests did not reveal any leak rate test failures and also did not indicate that any of the valves were trending such that they would fail their leak rate test if the Appendix J testing was deferred to the next refueling outage. One valve, FP-0493, did exceed its acceptance criteria in December 1993, because of an improper test setup. The subsequent two refueling outage tests were acceptable. The next refueling outage is scheduled for March of 1999. The two refueling outage test interval proposed by the licensee, while greater than the current Code requirements, is identical to guidance provided in Generic Letter 89-04, Guidance on Developing Acceptable Inservice Test Programs. Position 2 of Generic Letter 89-04 allows a licensee, in cases of extreme hardship, to extend the disassembly interval of a check valve to every other refueling outage where the extension is

supported by actual in-plant data from previous testing. Therefore, the staff finds that the proposed extension is acceptable. In addition, the staff finds that a shutdown of South Texas Project, Unit 1, to perform the required testing on these eight valves would constitute an unnecessary operational risk.

5.0 EXIGENT CIRCUMSTANCES

As discussed in Section 2.0 above, the amendment request was the result of the licensee's review of their Inservice Test Plan. In this case the licensee took prompt action to address the situation, and entered the action requirements of TS 3.6.3 for containment isolation valves (which could have led to the shutdown of Unit 1 if the valves were not returned to operable status within 24 hours) since the valves did not meet testing requirements in TS 4.0.5, evaluated the safety significance of the situation, and requested a Notice of Enforcement Discretion (NOED). The amendment request was submitted in a timely manner after the NOED was granted.

The Commission's regulations in 10 CFR 50.91 contain provisions for issuance of an amendment where the Commission finds that exigent circumstances exist, in that a licensee and the Commission must act quickly and that time does not permit the Commission to publish a *Federal Register* notice allowing 30 days for prior public comment. The exigency exists in this case in that the proposed amendment was the result of an NOED granted to prevent the shutdown of Unit 1. The staff has determined that the licensee used its best efforts to make a timely application associated with the NOED. Accordingly, the Commission has determined that exigent circumstances exist pursuant to 10 CFR 50.91(a)(6) and could not have been avoided, that the submittal of information was timely, and that the licensee did not create the exigent condition.

6.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATIONS DETERMINATION

The Commission's regulations in 10 CFR 50.92 (c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) result in a significant reduction in the margin of safety. The NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91. The NRC staff's final determinations are presented below.

1. The change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change is merely an extension of surveillance test intervals, which has no effect on accident initiation. Previous testing of the valves has demonstrated that they are capable of performing their design function. Therefore, the valves would be expected to perform their accident mitigation function as designed.

2. The change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Extending the surveillance test intervals does not affect the method or manner in which the valves operate. In addition there are no configuration changes on other systems that would affect the operation of the valves.

3. The change does not involve a significant reduction in the margin of safety.

All valves were previously leak rate tested in accordance with Appendix J in May of 1996 during the previous Unit 1 refueling outage and passed their acceptance criteria by a significant margin. In addition, historical data from the prior two tests of the valves did not reveal any leak rate test failures and also did not indicate that any of the valves were trending such that they would fail their leak rate test if the Appendix J testing was deferred to the next refueling outage.

7.0 STATE CONSULTATION

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

8.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change 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 effluents 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 (63 FR 48254). Accordingly, the amendment meets 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.

9.0 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.

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