



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 58 TO FACILITY OPERATING LICENSE NO. DPR-3
YANKEE ATOMIC ELECTRIC COMPANY
YANKEE NUCLEAR POWER STATION (YANKEE-ROWE)
DOCKET NO. 50-29

Introduction

By application dated November 24, 1978 (Proposed Change No. 139, Supplement No. 3), Yankee Atomic Electric Company (the licensee) requested an amendment to Facility Operating License No. DPR-3 for the Yankee Nuclear Power Station (Yankee-Rowe). The amendment would allow 16 miscellaneous changes to the Technical Specifications to update its provisions.

Discussion

The 16 proposed changes relate to:

- a. Correction of typographical or editorial errors in four specifications;
- b. Correction of errors or omissions in seven specifications;
- c. Revision of five specifications as a result of changes proposed by the licensee.

We have proposed five additional changes which are acceptable to the licensee.

Each of the changes are evaluated below and are organized in accordance with the above groupings.

Evaluation

- a. The following proposed changes relate only to the correction of typographical or editorial errors and are therefore acceptable.

7904200 310

1. Proposed Change #9, Page 3/4 4-22, Table 4.3-3, Item 3.b -- Item 3.b was deleted from Table 3.3-4 by Amendment No. 49 and should have been deleted from the associated Table 4.3-3 by the same amendment.
 2. Proposed Change #10, Page 3/4 4-4 -- The temperature limit of 20°F was changed to 30°F in Specification 3.4.1.3.a by Amendment No. 49. The same change should have been made to the associated Surveillance Requirement 4.4.1.3.1.
 3. Proposed Change #14, Page 3/4 7-24, ACTION -- Table 3.7-4 should be renumbered Table 4.7-4.
 4. Proposed Change #16, Page B3/4 0-1, Specification 3.0.3 -- The word "inoperable" should read "OPERABLE".
- b. The following proposed changes correct errors or omissions made in the identified specifications.
1. Proposed Change #3, Page 3/4 3-18, Table 3.3-4 -- These Yankee-Rowe technical specifications incorrectly identify the Loop Seal Monitor as a monitor which would detect a radioactive gaseous discharge to the environment. This error occurred because this possible flow path direct to the atmosphere had previously existed. Proposed Change No. 127 dated August 13, 1975, proposed a modification to the ventilation system which, among other changes, would route any release from this source through the primary vent stack where it would be monitored by particulate, iodine and noble gas monitors. The change to the ventilation system was approved by Amendment No. 18, dated November 12, 1975. The Loop Seal Discharge Monitor then became a local monitor which did not require a technical specification. These technical specifications require the primary vent stack particulate, iodine and noble gas monitors to be operable. Deletion of the Loop Seal Monitor from the Technical Specifications is consistent with previously approved changes to the ventilation system and is therefore acceptable.

2. Proposed Change #5, Pages 3/4 3-18 and 3/4 3-19, Table 3.3-4 -- During the development of these Yankee-Rowe technical specifications, the numbers for the Action Statements were incorrectly assigned not to be sequential after the Action Statement numbers of Tables 3.3-1 and 3.3-2. Reassignment of the numbers to be sequential is an acceptable correction.
3. Proposed Change #6, Page 3/4 3-20, Table 3.3-4 -- Action Statement numbers are to be changed to be consistent with changes made to Table 3.3-4 in b.2, above. This is an acceptable correction.
4. Proposed Change #7, Page 3/4 3-20, Table 3.3-4 and Page 2/4 3-22, Table 4.3-3 -- The footnote "*** With radioactive effluent in the Waste Gas Surge Drum" should be deleted as it refers to item 2.b.1 of Table 3.3-4 which was deleted in item b.1, above. Therefore, deletion of the footnote is an acceptable correction.
5. Proposed Change #8, page 3/4 3-21, Table 4.3-3 -- The Loop Seal Monitor was deleted from Table 3.3-4 by item b.1, above. Therefore, its deletion from this associated table is an acceptable correction.
6. Proposed Change #13, Page 3/4 7-22, Specification 4.7.7.2.2 -- During development of the Yankee-Rowe Technical Specifications, an error was made in requiring sampling and analysis of a steam generator "every 7 days, whenever any steam generator contains water". A steam generator can only be sampled for activity during blowdown. The Yankee-Rowe steam generators are blown-down continuously during operation in a trickle stream through a blowdown monitor which is required to be operable by the Technical Specifications. To be consistent, change of the blowdown radioactivity sampling and analysis requirement to "every 7 days whenever blowdown is in progress" resolves an apparent inconsistency and is therefore acceptable.
7. Proposed Change #15, Page 3/4 9-7 -- Specification 3.9.6.b specified "an overload cutoff limit $<$ 4800 pounds above base load." The base load, 2200 pounds, should have been included in the 4800 pound limit to operate the load cell within its range, 0-5000 pounds, and to avoid exceeding the tool boom design overload limit of 6200 pounds. To include the base load in the 4800 pound limit is more conservative than a 4800 limit above base load, and assures an appropriate safety margin for the tool boom design limit. Therefore, this change is acceptable.

We conclude that the above group of changes to correct errors or omissions made in the development of the Technical Specifications are administrative in nature, do not decrease the level of safety of the facility, and are therefore acceptable.

c. The following changes to the Technical Specifications were proposed by the licensee.

1. Proposed Change #1, Pages 3/4 3-18 and 3/4 3-19, Table 3.3-4 -- Process Monitors 2.a.1, 2.b.1.a (formerly 2.b.2.a), 2.b.1.b (formerly 2.b.2.b), 2.b.1.c (formerly 2.b.2.c) and 2.c.1 have been upgraded by installation of new improved instruments.

The licensee proposed a new alarm setpoint for item 2.a.1, Main Coolant System Leakage Air Particulate Monitor. However, to be consistent with the Standard Technical Specifications (STS) for Westinghouse plants, which are applicable to Yankee-Rowe, the setpoint for the Main Coolant System Leakage Air Particulate Monitor need not be specified in the Technical Specifications. This is because the leakage rate correlation versus leak detector setpoint varies with Main Coolant System activity and background radioactivity. Regulatory Guide 1.45, May 1973, addresses leakage detector setpoint, calibration and response time. The licensee has agreed to changing the alarm setpoint for item 2.a.1 to NA (Not Applicable). This is consistent with the Westinghouse STS, including the guidance contained in Regulatory Guide 1.45, and is therefore acceptable. Furthermore, as a result of our telephone discussions, the licensee withdrew the proposed new setpoints for items 2.b.1.a (formerly 2.b.2.a), 2.b.1.b (formerly 2.b.2.b), 2.b.1.c (formerly 2.b.2.c) and 2.c.1.

2. Proposed Change #2, Page 3/4 3-18, Table 3.3-4, item 2.a.1 -- The measurement range of the main coolant system leakage air particulate monitor has been increased from $10-10^4$ cps to $10-10^6$ cpm as a result of upgrading the instruments.
3. Proposed Change #4, Page 3/4 3-19, Table 3.3-4, item 2.c -- The measurement range of the steam generator blowdown monitor has been increased from 1×10^5 cps to $10-10^7$ cpm or $10-10^6$ cpm as a result of upgrading the instrument.

4. Proposed Change #11, Page 3/4 4-8 -- Specification 3.4.5.1.a has been changed to read "At least one" because a redundant containment atmosphere particulate radioactivity monitor has been added.
5. Proposed Change #12, Pages 3/4 4-10 and 3/4 4-11 -- The licensee has upgraded the Main Coolant System Leakage Air Particulate Monitor. The licensee proposed this change based on its proposed setpoint for the air particulate monitor, but Item c.1, above, deleted the proposed setpoint for this new instrument from the Technical Specifications. By deleting the setpoint, Action "d" was made redundant to Action "b". The Westinghouse plant STS, which are applicable to Yankee-Rowe, require an identical Action "b" but no further actions. Therefore, deletion of Action "d" from the Yankee-Rowe Technical Specifications is acceptable.

We conclude that the above group of changes do not decrease the level of safety of the facility and are therefore acceptable.

The following changes were identified by us and have been accepted by the licensee.

1. Page 3/4 5-8, Surveillance Requirement (SR) 4.5.2.e.7 -- Amendment No. 52 renumbered SR 4.5.2.b.4 to 4.5.2.b.3 - SR 4.5.2.e.7 refers to SR 4.5.2.b.4 and should therefore be corrected to refer to SR 4.5.2.b.3.
2. Page 3/4 6-7, Specification 3.6.1.6, Action -- The typographical error "200½F" should be corrected to "200°F".
3. Page 3/4 6-14, Table 3.6-1. -- The Main Coolant Heise Pressure Gage isolation valve number should be changed from PR-V-623 to PR-V-610 to reflect the correct valve number.
4. Page 3/4 7-1, Specification 3.7.1.1, Action; Page 3/4 7-2, Table 3.7-1 title; and Page 3/4 7-3, Table 3.7-2 title -- Amendment No. 47 recognized that the Reactor Protective System Intermediate Power Range Neutron Flux channel setpoints cannot be reduced in the same manner as the Power Range Neutron Flux channel setpoints. This Amendment deleted the requirement for the Intermediate Power Range channel setpoints to be reduced

in Specifications 3.10.3 and 3.10.4, but required that three Power Range Neutron Flux channels must be operable with reduced setpoints. Specification 3.7.1.1 Actions "a" and "b" also require the Power Range and Intermediate Power Range Neutron Flux channel setpoints to be reduced as indicated in Table 3.7-1 or 3.7-2 when main steam line code safety valves are inoperable. Because the Intermediate Power Range channel setpoints cannot be reduced to the setpoints specified, Actions "a" and "b" of Specification 3.7.1.1 would be changed to require only the three Power Range channels to be operable and to have their setpoints reduced as indicated in Table 3.7-1 or 3.7-2, as applicable. In addition, one Intermediate Power Range Neutron Flux channel would be required to be in the tripped condition and the Power Range Neutron Flux channels coincidence logic would be required to be in the "Single" position such that tripping of any one of the three Power Range Neutron Flux channels at the reduced setpoint will trip the reactor. These changed requirements would be consistent with the requirements of the Westinghouse plant STS, which are applicable to Yankee-Rowe, and are acceptable. The titles of Tables 3.7-1 and 3.7-2 would be changed to delete reference to the Intermediate Power Range channels. A footnote would be added to the LCO action statement to prohibit operation with less than 4 reactor coolant loops in service until NRC approval of appropriate LOCA analyses.

5. Page 6-5, footnote * -- the misspelling of ALTERATIONS would be corrected.

We conclude that the above group of changes do not reduce the level of safety of the facility and are acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that
(1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration,
(2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and
(3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: April 3, 1979