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JAN 1 4 1974

Docket Nos. 50-269
and 50-270

Duke Power Company
ATTN: Mr. Austin C. Thies
Senior Vice President,
Production & Transmission
422 South Church Street
P. O. Box 2178
Charlotte, N. C. 28201

Gentlemen:

Your letter of November 28, 1973 requested that Technical Specifications 3.1.5.2 and 3.1.5.3, Appendix A to License No. DPR-38 and No. DPR-47, be revised to raise the chloride and fluoride concentration limits in the primary coolant from 0.1 ppm to 0.15 ppm.

The 0.15 ppm limit for chlorides and fluorides is consistent with Regulatory Guide 1.44, May 1973, and is acceptable to us. We find that there is reasonable assurance that the health and safety of the public will not be endangered by this change.

Pursuant to Section 50.59 of 10 CFR Part 50, Technical Specifications, Appendix A to License Nos. DPR-38 and DPR-47, have been changed in accordance with the revised Technical Specifications 3.1.5.2 and 3.1.5.3 enclosed. These changes are identified as Change No. 8 to Technical Specifications License DPR-38 and Change No. 3 to Technical Specifications License DPR-47, and are effective on date of issuance.

Sincerely,

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R. C. DeYoung, Assistant Director
for Pressurized Water Reactors
Directorate of Licensing

Enclosures:
See Next Page

lq

Enclosures:
1. Change No. 8 to Technical Specifications License DPR-38
2. Change No. 3 to Technical Specifications License DPR-47

cc: William L. Porter
Duke Power Company
P. O. Box 2178
422 South Church St.
Charlotte, N. C. 28201

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3.1.5 Chemistry

Specification

3.1.5.1 If the concentration of oxygen in the primary coolant exceeds 0.1 ppm during power operation, corrective action shall be initiated within eight hours to return oxygen levels to $\leq$ 0.1 ppm.

3.1.5.2 If the concentration of chloride in the primary coolant exceeds 0.15 ppm during power operation, corrective action shall be initiated within eight hours to return chloride levels to $\leq$ 0.15 ppm.

3.1.5.3 If the concentration of fluorides in the primary coolant exceeds 0.15 ppm following modifications or repair to the primary system involving welding, corrective action shall be initiated within eight hours to return fluoride levels to $\leq$ 0.15 ppm.

3.1.5.4 If the concentration limits of oxygen, chloride or fluoride in 3.1.5.1, 3.1.5.2 and 3.1.5.3 above are not restored within 24 hours the reactor shall be placed in a hot shutdown condition within 12 hours thereafter. If the normal operational limits are not restored within an additional 24-hour period, the reactor shall be placed in a cold shutdown condition within 24-hours thereafter.

3.1.5.5 If the oxygen concentration and the chloride or fluoride concentration of the primary coolant system individually exceed 1.0 ppm. the reactor shall be immediately brought to the hot shutdown condition using normal shutdown procedure and action is to be taken immediately to return the system to within normal operation specifications. If normal operating specifications have not been reached in 12 hours, the reactor shall be brought to a cold shutdown condition using normal procedure.

Bases

By maintaining the chloride, fluoride and oxygen concentration in the reactor coolant within the specifications, the integrity of the reactor coolant system is protected against potential stress corrosion attack. (1,2)

The oxygen concentration in the reactor coolant system is normally expected to be below detectable limits since dissolved hydrogen is used when the reactor is critical and a residual of hydrazine is used when the reactor is subcritical to control the oxygen. The requirement that the oxygen concentration not exceed 0.1 ppm during power operation is added assurance that stress corrosion cracks will not occur. (4)

If the oxygen, chloride, or fluoride limits are exceeded, measures can be taken to correct the condition (e.g., switch to the spare demineralizer, replace the ion exchange resin, increase the hydrogen concentration in the makeup tank, etc.) and further because of the time dependent nature of any adverse effects arising from chlorides or oxygen concentrations in excess of the limits, it is unnecessary to shutdown immediately, since the condition can be corrected.

Date of Issuance:

UNITED STATES ATOMIC ENERGY COMMISSION
CHANGE TECHNICAL SPECIFICATIONS
LICENSES DPR-38 AND DPR-47
DOCKET NOS. 50-269 AND 50-270
OCONEE NUCLEAR STATION, UNIT 1 AND UNIT 2

Introduction

On November 28, 1973, Duke Power Company requested that Technical Specifications 3.1.5.2 and 3.1.5.3, Appendix A to the operating licenses for Oconee Units 1 and 2, be revised to raise the chloride and fluoride concentration limits in the primary coolant from 0.10 ppm to 0.15 ppm. Discussions with Duke Power personnel revealed that the 0.10 ppm limit is restrictive and delays start-up testing. Levels in the range of 0.11 - 0.12 ppm are achieved rapidly but levels below 0.10 ppm are requiring longer times.

Evaluation

The 0.15 ppm limit proposed by Duke Power for chloride and fluoride concentrations in the primary coolant is consistent with Regulatory Guide 1.44, and therefore, there is reasonable assurance that the health and safety of the public will not be endangered by this change. Future standard Technical Specifications will use this limit for chloride and fluoride concentrations in the primary coolant.

Conclusion

Appendix A to License Nos. DPR-38 and DPR-47 Technical Specifications 3.1.5.2 and 3.1.5.3 will be changed to raise the chloride and fluoride concentration limits in the primary coolant from 0.10 ppm to 0.15 ppm.

I. A. Peltier

I. A. Peltier, Project Manager
Pressurized Water Reactors Br. No. 4
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