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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-38
CHANGE NO. 24 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-47
CHANGE NO. 19 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 11 TO FACILITY LICENSE NO. DPR-55
CHANGE NO. 11 TO TECHNICAL SPECIFICATIONS

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3

DOCKET NOS. 50-269, 50-270 AND 50-287

Introduction

By letter dated January 15, 1975, Duke Power Company (the licensee) requested a change in the Technical Specifications of Licenses No. DPR-38, DPR-47, and DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3. The proposed amendments would allow the momentary passage of personnel through the operable door of a containment hatch which is inoperable due to a failed door gasket. The momentary passage would be allowed to repair and test the inoperable door and to expedite the return of the hatch to an operable status.

Discussion

The present Technical Specifications contain requirements to assure containment integrity during plant startup and operation. The requirements are imposed to assure that, in the event of the maximum hypothetical accident, the consequent release of radioactive contamination and resultant personnel exposures would be less than the limits of 10 CFR Part 100.

The containment structure for each of the Oconee units has a personnel hatch for normal access and an emergency hatch for use in the event the personnel hatch becomes inoperable. Operation of either of the hatches during time periods when containment integrity is required is possible since either the inner or outer door of the hatch meets the design specifications for structural integrity and leak rate requirements.

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In the event either the personnel or emergency hatch becomes inoperable as the result of a failed or inoperable door gasket, the present Technical Specifications require the following:

(1) The remaining door of the affected hatch shall be closed and sealed, and

(2) The hatch shall be restored to operable status within seven days or the reactor shall be in cold shutdown within the next 36 hours.

A failed gasket is most likely to be identified during the performance of a hatch leak rate test which is required to be performed periodically in order to verify that the design criteria continue to be met.

In the event a containment hatch becomes inoperable due to a failed door gasket, the licensee's proposal would allow momentary passage of personnel through the operable door in order to repair and test the inoperable door.

Evaluation

The licensee's original proposal of January 15, 1975, described a potential problem which appeared to cause some inconvenience but did not preclude the timely completion of repairs. We initially concluded that in the event a containment hatch became inoperable due to a failed door gasket, an alternate means of personnel access would be available through the other containment hatch (personnel or emergency) which was still operable. This appeared to provide both access to the containment as plant operation required, and in the event the failed gasket was on the inner door, access to that area to effect repairs. By letter dated February 19, 1975, we advised the licensee of our concern and requested that the proposal be reevaluated with a view toward furnishing additional analysis and justification to assure no undue risk to public health and safety.

By letter dated June 27, 1975, the licensee responded to our request and provided a more detailed evaluation of the problem. As described by the licensee, the hatch leak rate tests are performed by pressurizing the hatch between the inner and outer doors to the test pressure of 59 psig. This tends to seat the outer door and unseat the inner door. In order to perform the test, it is therefore necessary to install a restraint or strongback on the hatch side of the inner door to keep the inner door seated. Should the leak rate test fail due to an inoperable inner door gasket, it would not be possible to enter the hatch (1) from the Reactor Building side because of the strongback installed on the hatch side of the door; and (2) from the outer door side because of the current Technical Specifications which restrict access through the outer door, as discussed earlier. Since repair of the inner door gasket is not possible under these conditions, the hatch cannot be restored to an operable status and shut down and cooldown of the reactor would be required.

Should a failure of the outer gasket occur during a leak rate test, an access problem would not exist as the inner door would provide the containment integrity required while the outer door gasket is repaired. The licensee has agreed to make the proposed change applicable only to those situations in which the inner door gasket has failed. The proposed amendment has been modified to reflect this agreement.

By allowing momentary passage of personnel through the operable door of the hatch, as is proposed by the licensee, repairs to the inner door gasket would be possible followed by a verifying leak rate test. In reevaluating the proposed amendment, the following points were determined to be pertinent and significant.

(1) The hatch leak rate tests are performed quarterly and the inner door gasket does not fail frequently during the test.

(2) The probability of an accident that would require containment integrity during the brief interval that the outer door is open is very remote.

(3) The inner door of the hatch would remain shut during the brief interval the outer door is open and, even with a failed gasket, would limit containment leakage in the unlikely event of an accident requiring containment integrity. Additionally, the pressures involved in such an accident would tend to seat the inner door and further limit leakage.

(4) The hatch interlock system prevents opening both the outer and inner door at the same time.

(5) All other specifications would remain in effect, in particular the requirement to commence shut down and cooldown if the hatch cannot be restored to operation within seven days.

(6) In order to provide further assurance that containment outer door integrity is maintained when the inner door seal is inoperable, we have added the requirement, with which the licensee agrees, that the outer door gasket be leak-tested within 24 hours after opening of the outer door while the inner door gasket is being repaired.

In view of the above, we have concluded that allowing the momentary passage of personnel under the conditions described does not constitute an undue risk to the public health. We, therefore, find the proposed amendment to be acceptable.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the change 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 change 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: NOV 1 1 1975