

Enclosure 1

Safety Evaluation

Discussion

An NRC letter, dated August 4, 1977, was sent to Duke Power Company requesting the licensee to propose revisions to the Oconee Technical Specifications.

These recommended revisions consisted of:

- 1) inclusion of an operational requirement on the installed turbine building sump monitor with an alarm in the control room;
- 2) addition of a composite water sample at the outfall of the oil collection basin with weekly gamma spectra analysis and quarterly SR-89 and Sr-90 analysis; and,
- 3) addition of a requirement for two independent checks on valve alignment for discharge of radioactive spent resin from the secondary water clean-up system to the receiving tanks to prevent an inadvertent release of highly contaminated resins following steam generator leaks to the waste water collection basin.

These additional monitoring and administrative controls are required at the Oconee facility to keep radioactive releases "as low as reasonably achievable" in accordance with Appendix I to 10 CFR Part 50. Additionally, these revisions were determined to be necessary in maintaining adequate control of secondary-side radioactivity. Duke Power Company replied by letter dated September 27, 1977, and amended by letter dated October 14, 1977, stating their intention to conduct the above action on a voluntary basis but did not consider a revision to the Technical Specifications necessary. Duke also took exception to the recommendation of routine analysis of the oil collection basin

outfall for Sr-89 and Sr-90. They considered this analysis necessary only in the event of an inadvertent release. We have evaluated Duke's letters of commitment and have determined that Technical Specifications are needed to assure that the objectives of the recommended revisions are met. Additionally, we have evaluated Duke's letters of December 2, 1976, and August 4, 1977, addressing the Oconee procedure of controlling very low level radioactive resins from the secondary water clean-up system. The Duke procedure consists of discharge of these resins to the waste water collection basins. The procedure specifies a maximum inventory of radioactivity for the basins. In addition to the Oconee instituted controls, an annual surveillance requirement for a sample and radioactive analysis of the basin bottoms is needed to verify the quantity of activity in the basins. A revision of the Technical Specifications incorporating the procedures and limits for the discharge of the resins to the basins is necessary to assure adequate processing of radioactive spent resins and adequate control of radioactivity in the waste water collection basins.

Our reasons for these decisions are discussed below.

Evaluation

On two separate occasions within the past year, the Oconee Station has had inadvertent releases of radioactivity to the Keowee River via the turbine building sump through the waste water collection basins and oil collection basins. After the first release on January 19, 1977, Duke Power instituted additional administrative controls to prevent a recurrence. However, such controls were inadequate. A second unmonitored release occurred on May 11,

1977. While the quantity of radioactivity released posed no threat to the public health and safety, the lack of indication of the releases to the operators is a significant concern. Therefore, to assure prompt operator notification of contaminated water in the turbine building sump to assure adequate control, the operation of the turbine building sump radiation monitor and control room alarm (revision 1) will be included as a Technical Specification requirement.

Duke Power, by letters to the NRC dated December 2, 1976 and August 4, 1977, addressed their procedure of controlling low level radioactive resins from the secondary water clean-up system to the waste water collection basins. The Oconee imposed limits on the total inventory of radioactivity in the basins are small and represent potential doses if released to the environment which are a small fraction of the Appendix I design objective doses. The activity in the basins should not routinely be released to the environment but will be retained in the basin. The radioactivity in the pond will be controlled until ultimate disposal of the basin bottoms which will be addressed by Duke Power at a later date. Also, the surveillance requirement for an annual sample and radioactive analysis of the basin bottoms will verify that the activity in the basins has not exceeded the inventory limits and represents insignificant environmental doses. While this procedure of control of very low level radioactive spent resins is acceptable, additional Technical Specification requirements are necessary to assure adequate control and monitoring of the radioactivity. The outfall of the oil collection basin, which is the receiving water body for the waste water collection basins, represents a potential

unmonitored release point for radioactivity to the environment. The waste water collection basins act as a holding pond for low level contaminated resins; therefore, controls are necessary to limit the activity allowed in the basins. While the potential for significant releases of radioactivity is small, it is necessary that this potential pathway be controlled and monitored to assure adequate control over radioactivity in the waste water collection basin.

Oconee has experienced on a relatively frequent basis steam generator tube leaks. The contamination of the secondary side water from these leaks results in significant quantities of radioactivity on the steam generator cleanup resins. These contaminated resins are processed by the solid waste system until the levels of radioactivity are reduced to permit the discharge to the waste water collection basins. To prevent any inadvertent discharge of large quantities of radioactivity to the environment via the waste water collection basins, a Technical Specification requirement is needed to assure adequate administrative controls on proper valve alignment for the discharge of radioactive spent resins from the clean-up system.

Environmental Consideration

We have determined that the amendment does not authorize a significant 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

Based on the above evaluation, we conclude that a Technical Specification revision is necessary 1) to assure adequate control over secondary-side radioactivity and 2) to provide the required monitoring of all potential radioactive effluent release points.

We have also concluded, based on the considerations discussed above, that: (1) the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and 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.