

Docket
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Docket Nos.: 50-267/270/287

MEMORANDUM FOR: B. K. Grimes, Chief
Environmental Evaluation Branch
Division of Operating Reactors

FROM: J. T. Collins, Chief
Effluent Treatment Systems Branch
Division of Site Safety and
Environmental Analysis

SUBJECT: OCONEE NUCLEAR STATION, UNIT NOS. 1, 2, AND 3, - TECHNICAL
SPECIFICATION CHANGE TO CONTROL SECONDARY COOLANT TREATMENT
RELEASES

We have reviewed the memorandum, dated November 17, 1977, recommending amendments to the Environmental Technical Specifications for the Oconee Nuclear Station, Unit Nos. 1, 2, and 3. We concur with the revisions to the specifications that you recommend. In addition, we suggest several changes to implement 10 CFR Part 50, Appendix A, General Design Criteria 60 relative to the control of secondary system effluents and the ETSB proposed revision to SRP 11.5. Enclosed are our comments.

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ORIGINAL SIGNED BY
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Enclosure:
ETSB Comments

cc: D. Eisenhut
K. Goller
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COMMENTS ON THE PROPOSED
TECHNICAL SPECIFICATION AMENDMENT FOR
OCONEE NUCLEAR STATION, UNIT NOS. 1, 2, AND 3
(Docket Nos. 50-267/270/287)

1. Requirement for Turbine Building Sump Monitor, Item 1

The secondary system condensate filter/demineralizers automatically discharge to the turbine building sump. Units 1 and 2 share a sump, and the inlet is to be monitored with an alarm to the control room. Unit 3 is independent and the inlet is to be monitored with an alarm to the control room. These sump inlet monitors do not provide automatic isolation of turbine building sump releases and must rely on batch release administrative control (see item 3, below); therefore, they are process monitors. Their alarm set point (not given) provides administrative control for diverting filter/demineralizer waste resins and liquid to the radioactive solids systems by manual control. Therefore, any radioactive resin or liquid in the waste water collection basins is a failure of administrative controls, malfunction of the monitors, or inadequate sensitivity of the monitors.

COMMENT

Consider adding the set point on the turbine building inlet monitors to alarm at (5×10^{-6}) uCi/ml liquid and (10^{-4}) uCi/gram resin gross beta-gamma radioactivity. Consider adding the requirement that the filter/demineralizer resins and liquid shall be diverted

to the radioactive solids system whenever the turbine building sump inlet monitors alarm or are inoperable. Consider adding a requirement to calibrate the monitors at least every 18 months and to perform a functional test daily.

2. Requirement for Composite Water Sampler, Item 2

The memorandum, dated November 17, 1977, to DOR (K. Goller) indicates in paragraph 2, page 2, line 9, that "monthly strontium analysis is needed;" however, the memorandum revision item 2) and the safety evaluation specify quarterly strontium analysis. The applicant, Duke Power Company, requested in their letter of October 14, 1977, to consider monthly strontium analysis at the effluent composite sampler in the event of radioactive liquid release to the oil collection basin (prior to the sampler). The licensee may obtain more frequent analysis at any time using the weekly or monthly composite samples; however, the technical specifications should require at least a quarterly composite sample to be analyzed quarterly for Sr-89 and Sr-90.

COMMENT

Consider changing item 2) to require both a quarterly representative sample collection frequency and a quarterly Sr-89 and Sr-90 analysis frequency.

3. Requirement for Valve Alignment Checks, Item 3

The waste water collection basins must be operated on a batch basis since the downstream effluent radiation sampler monitor does not provide automatic isolation control to meet the requirements of GDC 60. Batch releases require that the outlet valve on each basin be closed whenever an inlet valve is open and that the outlet valve remain closed whenever the inlet valve is closed during sampling, analysis, and cleaning of the basin.

COMMENTS

Consider changing the valve alignment to a description of batch release control. The basin valve numbers are needed to describe the operation. Consider adding to the basin operation, the requirement for representative sampling of all resin and liquid in each batch prior to release.

4. General Comments

We agree that a representative sampler must be installed on the effluent stream to meet the requirements of GDC 64. It's proposed location, on the oil collection basins discharge, meets this requirement. Representative liquid samplers are described in SRP 11.5 (Rev. 1).

Although we believe that the Oconee's filter/demineralizer treatment system can be made to comply with 10 CFR Part 50, Appendix A, for potentially radioactive effluent monitoring and control, we believe that phase separation is a better alternative. Duke Power Company has been approached on this question in the review of Cherokee, Perkins, Catawba, and McGuire Nuclear Power Plants when they proposed adding condensate filter/demineralizers to the secondary system. We considered this design modification in our revision to SRP 11.5 (draft), and have incorporated changes to the Standard Technical Specifications to specifically include these potentially radioactive effluents as was the intent in Regulatory Guide 1.21, and the present Technical Specifications for Oconee, Unit Nos. 1, 2, and 3.