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

APPLICANT : DUKE POWER COMPANY

FACILITY : OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3

MEETING WITH DUKE AND B&W, NOVEMBER 27, 1973, BETHESDA, MARYLAND,
RADIOACTIVE WASTE TREATMENT

By letter dated October 26, 1973, Duke Power Company informed the AEC that during the operation of Oconee Unit 1, it has experienced difficulty in managing liquid waste generated by the station. The problem stems from the fact that more liquid waste is being generated at the station than was anticipated at the time of the waste handling system design, the system lacks the options required to effectively segregate clean from contaminated liquid and some of the liquid processing equipment is not performing up to specification.

Although the situation has been aggravating, it has not resulted in radioactive releases to the environment in excess of Technical Specification limits (See Enclosure 1). To assure meeting Technical Specification limits Duke Power has trucked approximately 117,000 gallons of very low level liquid from the station.

The October 26, 1973 letter from Duke also announced Duke's plans to add liquid waste processing equipment to the existing system as an interim measure and to redesign the system as a permanent cure. The purpose of the meeting was to provide Duke the opportunity to make a preliminary presentation to the AEC on these plans.

Duke described its experience to date with liquid waste at the Oconee Nuclear Station during the operation of Unit 1. The liquid waste sources which have made a major contribution to exceeding the design criteria of the waste handling system are the sampling and laboratory drains, miscellaneous system leakage and the laundry. Although much of this waste has been clean, inability to segregate the clean liquid from the liquid which is slightly contaminated with boron and radioactivity has necessitated processing large quantities of the total. Furthermore, the waste evaporator used to process the liquid has not performed up to specification. Releasing liquid to the Keowee hydro tailrace has been constrained by an unrealistic environmental Technical Specification limit on boron concentration. The maximum boron concentration limit in the

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Technical Specifications for 2.8×10^{-4} ppm, about a factor of 10,000 below natural background and about a factor of 20×10^6 below the level which would affect fish. The staff recognizes this problem and is taking action to correct the situation.

Duke described the interim measures that it plans to relieve the handling problems. These measures basically involve the addition of a parallel waste processing system (See Enclosure II). In addition, Duke is performing conceptual studies in order to design permanent modifications to the liquid waste handling system. The staff advised Duke that the AEC would eventually have to find that the system is capable of meeting the objectives of Appendix I when it becomes adopted. Duke committed to providing the AEC with sufficient information, data and design criteria that the staff can perform an independent review of the permanent modifications. The staff committed to responding to the October 26, 1973 letter from Duke regarding staff review of the interim measures. Design information regarding the permanent modifications will be submitted by Duke about mid-February 1974.

The meeting agenda and attendance list are enclosed as Enclosures III and IV, respectively.

Original Signed

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

Enclosures:

1. Chart on Liquid Waste Releases
2. Diagram of Interim Liquid Waste Disposal System
3. Agenda
4. Attendance List

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