DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

June 30, 1976

Mr. Benard C. Rusche
Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. A. Schwencer, Chief
Operating Reactors Branch #1

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. Rusche:

In response to a May 18, 1976 meeting with the NRC staff at Oconee Nuclear Station concerning the Permanent Waste Management Facility, the attached supplemental information is provided.

Very truly yours,

William O. Parker, Jr.

MST:vr

Attachment

REQUEST FOR ADDITIONAL INFORMATION
CONCERNING THE OCONEE NUCLEAR STATION

1. Question

Provide a summary of the liquid discharged from the Oconee Nuclear Station during 1975 and 1976. This should specifically include the laundry, condensate monitor and condensate test tanks.

RESPONSE

A tabulation of liquid waste released during 1975 is provided below:

Total processed waste	5.76×10^6 gal.
Powdex system waste water	1.83×10^6 gal.
Quench tank recirculation line leak, (see AO 270/75-19)	1.43×10^4 gal.
Spent fuel pool, Unit 3	1.86×10^6 gal.

From January 1, 1976 to April 30, 1976, the following information is provided concerning the releases from various station tanks:

Condensate Monitor Tanks	792,059 gal.
Condensate Test Tanks	432,302 gal.
Laundry and Hot Shower Tanks	265,284 gal.

2. Question

Discuss the necessity for the monitoring of the Permanent Waste Management Facility Building for I-131 and particulate effluents.

RESPONSE

The radiation monitor currently installed in the PWMF building samples the building exhaust for gaseous activity primarily for the detection of activity leakage within the facility. All potential sources of activity are connected to the vent header and the PWMF building is not a release point for liquid or gaseous activity. However, since the possibility exists for the release of a small amount of activity during certain maintenance activities, radiation monitors will be installed which will be capable of detecting I-131 and particulate effluents.

3. Question

Provide a statement of the expected availability of the new 15 gpm waste evaporator.

RESPONSE

Based upon experience which has been gained in the utilization of the 15 gpm evaporator, it is expected that availability in excess of 75 percent will be achieved.

4. Question

Discuss the methods to be used to replace the evaporator feed filters and maintain exposures as low as reasonably achievable (ALARA).

RESPONSE

The methods currently in use for replacement of the evaporator feed filters has consisted of manual removal techniques using remote tools. To date, the relatively low activity of the filters and the short exposure times have limited exposures to 40 mR during the last filter change. In order to assess the exposure impact of high level filters, an analysis was performed which assumed a level of 50 R/hr at contact with the filter housing. This analysis considered three alternatives; (1) use of the existing procedure, (2) elimination of certain tasks in the present procedure, and (3) the use of remote tools and a specially designed shielded disposable cask. It has been determined (alternative (2) preceding) that a significant reduction can be affected through the use of a disposable filter hold-down spring which will minimize exposure time. It is expected that six filter replacements per year, with this highly activated filter and using this procedure, will result in a total dose annual commitment of 2.8 rem.

Although further reductions in dose commitment could be achieved through the use of a specially-designed shielded, disposable cask, the existing facility design is not compatible with the use of this cask. Modifications to the present facility to permit the use of this cask cannot now be cost justified for the reduction in exposure due to the extent of modifications which would be required.

5. Question

Discuss the solid waste handling facility design in terms of achieving personnel exposures as low as reasonably achievable.

RESPONSE

A review of the solid waste handling system is currently in progress to determine what additional measures might be taken to improve the operability of the present system and to obtain personnel exposures which are as low as reasonably achievable. This review is expected to require several months for completion. Further information concerning the solid waste system will be transmitted at that time.

6. Question

Describe the hydrogen and oxygen monitoring instrumentation which will monitor the radwaste system for potentially explosive gas mixtures.

RESPONSE

A hydrogen, oxygen monitor is currently installed in the Oconee 3 radwaste system. This monitor is of the sequential sampler type which takes a six-minute sample on various locations within the radwaste system. The monitor alarms on either high hydrogen or oxygen levels of 3 percent.

A redundant hydrogen and oxygen monitor will be installed which will be dedicated to monitoring of the waste gas header. Since all liquid tanks in the PWMF are vented to the waste gas header and the PWMF waste gas decay tanks are filled from this header, it is considered that this new monitor in combination with the existing sequential monitor will detect any potentially explosive gas mixture.

7. Question

Provide a preliminary schedule for completion of the remaining modifications.

RESPONSE

It is preliminarily estimated that completion of those items necessary to convert the Interim Waste Management Facility to the Permanent Waste Management Facility would require approximately one year for engineering and an additional two years for equipment procurement and installation.