

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER

TO:
Mr. Benard C. Rusche

FROM:
Duke Power Company
Charlotte, North Carolina
William O. Parker, Jr.

DATE OF DOCUMENT
5/6/77

DATE RECEIVED
5/13/77

LETTER
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DESCRIPTION

Ltr. Notorized 5/6/77....trans the following:

PLANT NAME:
Oconee Units 1-2-3 (2-P)

RJL

ENCLOSURE

Amdt. OL/change to Appendix A tech specs...defines provisions to identify and/or account for radionuclides which may be present at low activity levels in mixtures of gamma emitters.....

DO NOT REMOVE

(3-P) **ACKNOWLEDGED**

SAFETY	FOR ACTION/INFORMATION	ENVIRO
ASSIGNED AD:		ASSIGNED AD:
BRANCH CHIEF:	<i>Schwemmer (S)</i>	BRANCH CHIEF:
PROJECT MANAGER:	<i>Neighbors</i>	PROJECT MANAGER:
LIC. ASST. :	<i>Sheppard</i>	LIC. ASST. :

INTERNAL DISTRIBUTION			
<input checked="" type="checkbox"/> REG FILE	<input type="checkbox"/> SYSTEMS SAFETY	<input type="checkbox"/> PLANT SYSTEMS	<input type="checkbox"/> SITE SAFETY &...
<input checked="" type="checkbox"/> NRC PDR	<input type="checkbox"/> REINEMAN	<input type="checkbox"/> TEDESCO	<input type="checkbox"/> ENVIRO ANALYSIS
<input checked="" type="checkbox"/> E & E (-2)	<input type="checkbox"/> SCHROEDER	<input type="checkbox"/> BENAROYA	<input type="checkbox"/> DENTON & MULLER
<input type="checkbox"/> OELD	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> LAINAS	<input type="checkbox"/> ENVIRO TECH.
<input checked="" type="checkbox"/> GOSSICK & STAFF	<input type="checkbox"/> MACARRY	<input type="checkbox"/> IPPOLITO	<input type="checkbox"/> ERNST
<input type="checkbox"/> MIPC	<input type="checkbox"/> BOSNA	<input type="checkbox"/> KIRKWOOD	<input type="checkbox"/> BALLARD
<input type="checkbox"/> CASE	<input type="checkbox"/> SIHWIL	<input type="checkbox"/> OPERATING REACTORS	<input type="checkbox"/> YOUNGBLOOD
<input checked="" type="checkbox"/> HANAUER	<input type="checkbox"/> PAWLICKI	<input type="checkbox"/> STELLO	<input type="checkbox"/> SITE TECH.
<input type="checkbox"/> HARLESS	<input type="checkbox"/> REACTOR SAFETY	<input type="checkbox"/> OPERATING TECH.	<input type="checkbox"/> GAMMILL
<input type="checkbox"/> PROJECT MANAGEMENT	<input type="checkbox"/> ROSS	<input type="checkbox"/> EISENHUT	<input type="checkbox"/> STEPP
<input type="checkbox"/> BOYD	<input type="checkbox"/> NOVAK	<input type="checkbox"/> SHAO	<input type="checkbox"/> HULMAN
<input type="checkbox"/> P. COLLINS	<input type="checkbox"/> ROSZTOCZY	<input type="checkbox"/> BAER	<input type="checkbox"/> SITE ANALYSIS
<input type="checkbox"/> HOUSTON	<input type="checkbox"/> CHECK	<input type="checkbox"/> BUTLER	<input type="checkbox"/> VOLLMER
<input type="checkbox"/> PETERSON	<input type="checkbox"/> AT & I	<input type="checkbox"/> GRIMES	<input type="checkbox"/> BUNCH
<input type="checkbox"/> MELTZ	<input type="checkbox"/> SALTZMAN	<input type="checkbox"/> RUTBERG	<input checked="" type="checkbox"/> J. COLLINS
<input type="checkbox"/> HELTEMES	<input type="checkbox"/> RUTBERG		<input type="checkbox"/> KREGER
<input type="checkbox"/> SKOVHOLT			

EXTERNAL DISTRIBUTION			CONTROL NUMBER
<input checked="" type="checkbox"/> LPDR: <i>Walhalla, SC</i>	<input type="checkbox"/> NAT. LAB:	<input type="checkbox"/> BROOKHAVEN NAT. LAB.	771360032 <i>Ap 2</i> <i>60</i>
<input checked="" type="checkbox"/> TIC:	<input type="checkbox"/> REG V. IE	<input type="checkbox"/> ULRIKSON (ORNL)	
<input checked="" type="checkbox"/> NSIC:	<input type="checkbox"/> LA PDR		
<input type="checkbox"/> ASLB:	<input type="checkbox"/> CONSULTANTS:		
<input checked="" type="checkbox"/> ACRS/6 CYS HOLDING/SENT	<i>As CAT B</i>		

DUKE POWER COMPANY

POWER BUILDING

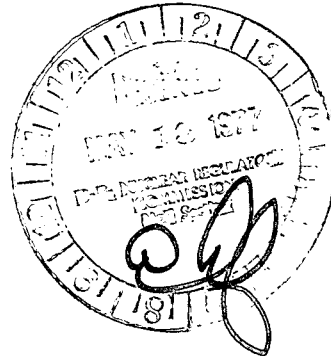
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

May 6, 1977

TELEPHONE: AREA 704
373-4083

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



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

Dear Mr. Rusche:

As stated in our response to April 12, 1977 to Item 1 of IE Inspection Report 50-269, -270, -287/77-2 and pursuant to 10CFR50, §50.90, an amendment to Section 4.1 of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, -47, and -55 is requested. Proposed replacement pages for Technical Specification Table 4.1-3 are attached.

The proposed change to Technical Specification Table 4.1-3 defines provisions to identify and/or account for radionuclides which may be present at low activity levels in mixtures of gamma emitters. Due to other radionuclides, which are present in the samples at much higher activity levels, it may not be possible to measure the activity level of some radionuclides at their specified sensitivity limit. This change is considered necessary to resolve the problem of accounting for these low activity radionuclides.

The provisions as stated in the technical specification change consist of re-identifying the gamma isotopic analysis to an analysis of principal gamma emitters. In this analysis, the minimum detectable activities (MDA) of the nuclides not meeting the sensitivity limits of Table 4.1-3 will be compared with the total activity present from other nuclides. If the MDA of each of these nuclides is less than 1% of the total activity present, it will not be included in the total activity determination. If it is greater than 1% of the total activity present, it will be added to the total activity at its MDA concentration.

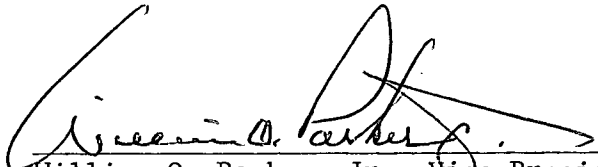
Very truly yours,

William O. Parker, Jr.

LJB:ge
Attachments

771360032

WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Facility Operating Licenses DPR-38, DPR-47, and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.



William O. Parker, Jr., Vice President

Subscribed and sworn to before me this 6th day of May, 1977.



Notary Public

My Commission Expires:

October 24, 1977

TABLE 4.1-3 Cont.

MINIMUM SAMPLING FREQUENCY

<u>Item</u>	<u>Check</u>	<u>Frequency</u>	<u>Sensitivity Limits of Lab Analysis for Waste</u>
7. Low Activity Waste Tank, Condensate Test Tank, Condensate Monitoring Tank, Laundry-Hot Shower Tank	a. Principal Gamma Emitters ⁽⁵⁾ including Dissolved Noble Gases	a. Prior to release of each batch	a. Gamma Nuclides $<5 \times 10^{-7}$ $\mu\text{Ci/ml}$ Dissolved Gases $<10^{-5}$ $\mu\text{Ci/ml}$
	b. Radiochemical Analysis Sr 89,90	b. Monthly	b. $<10^{-8}$ $\mu\text{Ci/ml}$
	c. Tritium	c. Monthly	c. $<10^{-5}$ $\mu\text{Ci/ml}$
	d. Gross Alpha Activity	d. Monthly	d. $<10^{-7}$ $\mu\text{Ci/ml}$
8. Waste Gas Decay Tank	a. Principal Gamma Emitters ⁽⁵⁾	a. Prior to release of each batch	a. $<10^{-4}$ $\mu\text{Ci/cc}$ (gases) $<10^{-10}$ $\mu\text{Ci/cc}$ (particulates and iodines)
	b. Tritium	b. Prior to release of each batch	b. $<10^{-6}$ $\mu\text{Ci/cc}$
9. Unit Vent Sampling	a. Iodine Spectrum ⁽⁴⁾	a. Weekly	a. $<10^{-10}$ $\mu\text{Ci/cc}$
	b. Particulates ⁽⁴⁾		
	1) Principal Gamma Emitters ⁽⁵⁾	1) Weekly Composite	1) $<10^{-10}$ $\mu\text{Ci/cc}$
	2) Gross Alpha Activity	2) Quarterly on a sample of one week duration	2) $<10^{-11}$ $\mu\text{Ci/cc}$
	3) Radiochemical Analysis Sr 89;90	3) Quarterly Composite	3) $<10^{-11}$ $\mu\text{Ci/cc}$

TABLE 4.1-3 Cont.

MINIMUM SAMPLING FREQUENCY

<u>Item</u>	<u>Check</u>	<u>Frequency</u>	<u>Sensitivity Limits of Lab Analysis for Waste</u>
	c. Gases by Gamma Isotopic Analysis	c. Weekly	c. $<10^{-4}$ $\mu\text{Ci/cc}$
10. Keowee Hydro Dam Dilution Flow	Measure Leakage Flow Rate	Annually	
11. Condenser Air Ejector Partition Factor	Measure Iodine Partition Factor in Condenser	One time if and when primary to secondary leaks develop	
12. Reactor Building	a. Principal Gamma Emitters ⁽⁵⁾	a. Each Purge	a. $<10^{-4}$ $\mu\text{Ci/cc}$ (gases) $<10^{-10}$ $\mu\text{Ci/cc}$ (particulates and iodines)
	b. Tritium	b. Each Purge	b. $<10^{-6}$ $\mu\text{Ci/cc}$

(1) When radioactivity level is greater than 10 percent of the limits of Specification 3.1.4, the sampling frequency shall be increased to a minimum of once each day.

(2) \bar{E} determination will be started when gross beta-gamma activity analysis indicates greater than 10 $\mu\text{Ci/ml}$ and will be redetermined for each 10 $\mu\text{Ci/ml}$ increase in gross beta-gamma activity analysis thereafter. A radiochemical analysis for this purpose shall consist of a quantitative measurement of 95 percent of the radionuclides in the reactor coolant with half lives greater than 30 minutes. This is expected to consist of gamma isotopic analysis of the primary coolant, including dissolved gaseous activities, radiochemical analysis for Sr-89 and Sr-90, and tritium analysis.

TABLE 4.1-3 Continued

MINIMUM SAMPLING FREQUENCY

- (3) When gross activity increases by a factor of two above background, an iodine analysis will be made and performed thereafter when the gross beta-gamma activity increases by 10 percent.
- (4) When the activity level exceeds 10 percent of the limits of Specification 3.9, the sampling frequency shall be increased to a minimum of once each day. This can be done by RIA-44 (Unit Vent Iodine Monitor). When the gross activity release rate exceeds one percent of the maximum release rate and the average gross activity release rate increased by 50 percent over the previous day, an analysis shall be performed for iodines and particulates. This can be done by RIA-44 (Unit Vent Iodine Monitor) and RIA-43 (Unit Vent Particulate Monitor).
- (5) For certain mixtures of gamma emitters, it may not be possible to measure the activity level of some radionuclides in the mixture to their specified sensitivity limit when other nuclides are present in the sample at much higher activity levels. When this situation exists, the minimum detectable activities (MDA) of the nuclides not meeting the sensitivity limits will be compared with the total activity present from other nuclides. If the MDA of each of these nuclides is less than 1% of the total activity present, it will not be included in the total activity determination. If it is greater than 1% of the total activity, it will be added to the total activity in its MDA concentration.