

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 948

FILE: _____

FROM: Duke Power Company Charlotte, N. C. 28201 A. C. Thies			DATE OF DOC 1-31-74	DATE REC'D 2-4-74	LTR X	MEMO	RPT	OTHER
TO: Mr. Giambusso			ORIG 1 signed	CC	OTHER	SENT AEC PDR X		SENT LOCAL PDR X
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D		DOCKET NO:		
	XXXX			1		50-269		

DESCRIPTION:
Ltr reporting an abnormal occurrence in which it was noted that the level of radioactivity in the reactor coolant appeared to exceed a level attributable to corrosion products and tramp uranium.....

ENCLOSURES:

ACKNOWLEDGED
Do Not Remove

PLANT NAME: Oconee Unit # 1

FOR ACTION/INFORMATION 2-4-74 AB

- | | | | |
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| ✓ MUNTZING/STAFF | ✓ MACCARY | KASTNER | B. HURT |
| ✓ CASE | ✓ KNIGHT | BALLARD | ✓ GOULBOURNE (L) |
| GIAMBUSSO | ✓ PAWLICKI | SPANGLER | LEE (L) |
| BOYD | ✓ SHAO | | MAIGRET (L) |
| ✓ MOORE (L)(BWR) | ✓ STELLO | ENVIRO | SERVICE (L) |
| DEYOUNG(L)(PWR) | ✓ HOUSTON | MULLER | SHEPPARD (E) |
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EXTERNAL DISTRIBUTION

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| ✓ 1 - LOCAL PDR Walhalla, S. C. | (1)(2)(10)-NATIONAL LAB'S | 1-PDR-SAN/LA/NY |
| ✓ 1 - DTIE(ABERNATHY) | 1-ASLBP(E/W Bldg, Rm 529) | 1-GERALD LELLOUCHE |
| ✓ 1 - NSIC(BUCHANAN) | 1-W. PENNINGTON, Rm E-201 GT | BROOKHAVEN NAT. LAB |
| 1 - ASLB(YORE/SAYRE/
WOODARD/"H" ST. | 1-CONSULTANT'S | 1-AGMED(Ruth Gussman) |
| ✓ 16 - CYS ACRS HOLDING SENT TO LIC ASST. | NEWMARK/BLUME/AGBABIAN | RM-B-127, GT. |
| E. GOULBOURNE ON 2-4-74 | 1-GERALD ULRIKSON...ORNL | 1-RD..MULLER..F-309 GT |

Regulatory

File Cy.

DUKE POWER COMPANY

POWER BUILDING

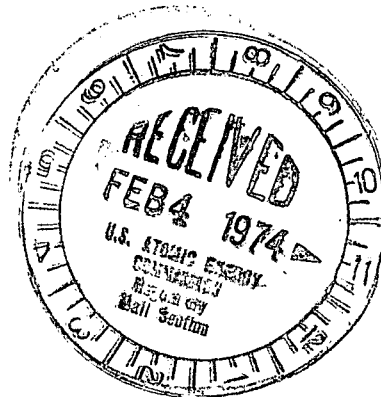
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. Box 2178

January 31, 1974

Mr. Angelo Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545



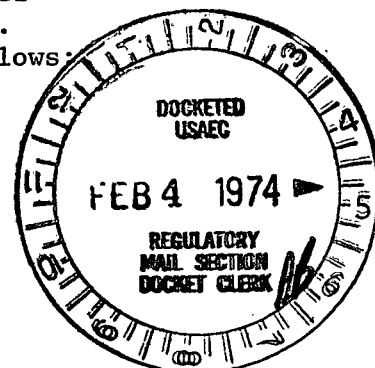
Re: Oconee Nuclear Station
Unit 1
Docket No. 50-269

Dear Mr. Giambusso:

During initial startup and operation of Unit 1 of our Oconee Nuclear Station, it was noted that the level of radioactivity in the reactor coolant appeared to exceed a level attributable to corrosion products and tramp uranium. These indications have been monitored and evaluated during subsequent power operation. The purpose of this letter is to provide you with information concerning this matter.

Gamma spectral analysis has shown that only a small portion of the gross reactor coolant activity is a result of corrosion product activation. The remainder of the observed activity appears to be due to various gaseous fission products. The observed fission product activities have been significantly less, however, than predicted reactor coolant activities based on one percent defective fuel. Principal isotopic activities observed at 100 EFPD were as follows:

<u>Isotope</u>	<u>Oconee 1 Measured Values ($\mu\text{Ci/cc}$)</u>
I 131	0.38
I 133	0.62
Xe 133	4.8
Xe 135	1.1



It should be noted, also, that reactor coolant alpha activity has been below minimum detectable limits, i.e., less than $10^{-6}\mu\text{Ci/cc}$.

On November 1, 1973, in accordance with Technical Specification 4.1.2, reactor coolant \bar{E} was determined to be 0.31 MeV. As per Technical

Mr. Angelo Giambusso

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Specification 3.1.4, maximum allowable reactor coolant activity was calculated to be approximately 720 $\mu\text{c}/\text{cc}$. Current data indicate that the gross reactor coolant activity is less than three percent of this limit. Also, the activity level has shown no discernible increasing trend from approximately 500 MWD/MTU burnup to the present burnup of approximately 3400 MWD/MTU.

We are continuing to monitor and evaluate reactor coolant activity. Should any significant developments occur we will advise you further.

Very truly yours,

Paul H. Barton

A. C. Thies

For

ACT:vr

cc: Mr. N. C. Moseley