

## DUKE POWER COMPANY

POWER BUILDING

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

A. C. THIES  
SENIOR VICE PRESIDENT  
PRODUCTION AND TRANSMISSION

January 21, 1975

Mr. Gordon K. Dicker  
Directorate of Licensing  
Environmental Projects Branch 2  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

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

Dear Mr. Dicker:

In reference to your letter of December 5, 1974 regarding apparent inconsistencies in the Oconee Nuclear Station Semiannual Report for the period ending June 30, 1974, the following response is provided:

1. The presence and levels of  $^{40}\text{K}$  in air-particulate samples are very unlikely and inconsistent with reported total beta activity.

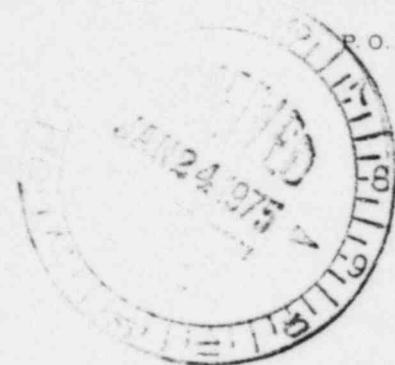
The detector utilized to analyze these samples was changed from a NaI(TL) to a Ge(Li) detector. The background subtraction technique used with the new detector did not subtract the  $^{40}\text{K}$  peak. This peak is due to the presence of  $^{40}\text{K}$  the concrete-aggregate of the counting-room walls and floors. The procedure has been changed to include the proper background subtraction with the new detector.

2. The reported air-sample volumes at the four locations vary by an order of magnitude.

The South Carolina State Board of Health has provided Bendix Nuclear Air Samplers with flow rates of 1cfm at the Warpath Recreation Area [009], and near the boat dock at R. W. Gudger's Office [014]. Duke has used Gelman's Tempest Air Samplers with maximum flow rates of 10.5 cfm at the other locations. Duke has recently replaced the air samplers at locations [009] and [014] with its own samplers, therefore, sample volumes should be similar in the future.

3. Reported  $^{40}\text{K}$  levels in terrestrial vegetation are unusually high, by at least an order of magnitude. Although total beta levels are similar at any single location, samples collected in March 1974 contained no measurable levels of  $^{40}\text{K}$ , while those collected in June were found to have extremely high levels.

The response of item 1. is also applicable to this question.



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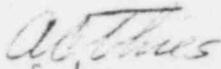
January 21, 1975

4. It is unreasonable to find no  $^{40}\text{K}$ , or any other naturally-occurring gamma emitting radionuclides, in soil.

The statement "No gamma-emitters above background" indicates that values were not stated for isotopes normally expected to be present in soil, such as  $^{40}\text{K}$  and radium and daughter products.

The milch-animal census performed by Duke revealed the presence of two cows, within the 5-mile radius of the site, that are not included in the radiological monitoring program. The owner refused to sell us milk for our sampling program, since he uses the output of these two cows for buttermilk.

Very truly yours,



A. C. Thies

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