

FEB 19 1985

Docket Nos: 50-424
and 50-425

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Docket Nos. 50-424/425

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Mr. Donald O. Foster
Vice President and General Manager
Georgia Power Company
Route 2, Box 299A
Waynesboro, GA 30830

Dear Mr. Foster:

Subject: Formal Transmittal of Additional Hydrologic Engineering Questions
Discussed in January 28, 1985 Telecon

Enclosed are additional hydrologic engineering questions on Vogtle that are necessary to complete our safety and environmental reviews. These questions were discussed with the applicant during a telephone conference call on January 28, 1985.

The applicant should respond to these requests by March 1, 1985, in order not to impact the FES and SER schedules.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

If there are any questions, contact the project manager, Melanie Miller, at (301) 492-4259.

Sincerely,

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Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosure:
As stated

cc: See next page
8502250527 850219
PDR ADOCK 05000424
F PDR

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Certified By

Angela Hutton

DL/LB #4
MMiller/ah
2/15/85

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2/15/85

1. Provide, in the FSAR, the complete record for all observation wells used to measure groundwater levels in the site and vicinity. Include the following information:
 - (a) Period should include initial site investigation (about 1971) through present.
 - (b) The areal location of all observation wells should be shown on one map of sufficient scale to be clearly legible. Use symbols to differentiate the wells in the confined and unconfined aquifers and the marl aquaclude.
 - (c) Include all wells with more than two level observations. Where wells were abandoned indicate date abandoned, whether or not they were sealed and method of sealing. Indicate the time period that well readings were affected by construction dewatering.
 - (d) For each observation well provide the elevation of the well, the total depth and the depth interval screened or open.
2. Provide, in the FSAR, a complete record of all permeability (hydraulic conductivity) and porosity (total and/or effective) evaluations in the unconfined aquifer and marl aquaclude. Include the following information:
 - (a) The measured or calculated values for all tests between the initial site investigation (about 1971) and the present. For all values indicate how (method) they were obtained.
 - (b) Provide the boring logs or reference thereto for all holes used (including those used for laboratory testing) and locate on a suitable map. The map should include only the locations of boreholes used for permeability and/or porosity measurements to preclude crowding and illegibility.
 - (c) Where values are from pumping tests, provide all relevant information, including the location of observation wells, pump rates, durations, and drawdowns.
 - (d) All available water pressure test data in the unconfined aquifer and marl aquaclude should be reduced for permeability values. The data sheets need not be included in the FSAR but should be provided to the staff under separate cover. Please also provide on the data sheets your judgements or conclusions where the test data might indicate the presence of solution enlarged joints or cavities.
3. Provide estimates of the effective porosity for the Utley Limestone. Suggest you use the fractures per unit area as suggested by Snow and referenced in Cherry and Freeze at page 74.

4. FSAR Section 2.5.4.3.1 discusses the 474 holes that have been drilled since field investigations started in 1971. The staff has some concerns with respect to possible groundwater contamination of aquifers beneath the Vogtle site and the potential of these drill holes as pathways for possible contamination. Provide a discussion of the current status of all 474 drill holes. This discussion should include: (1) the total number of boreholes still open for use as observation wells or other purposes, explain; (2) the number of holes penetrating the Blue Bluff Marl member and the current status. For the boreholes that have been filled or sealed, include the method of sealing and rationale for the method selected; (3) the number of holes penetrating the confined aquifer and the current status. Provide information on sealing as defined in (2) above; (4) the number of holes penetrating only the surficial aquifer and/or river alluvium and current status. Provide the information on sealing as defined in (2) above.

Are there any boreholes in addition to the 474 discussed in Section 2.5.4.3.1? If there are, provide the same information requested for the original 474.

VOGTLE

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