

DCS MS-016

DEC 28 1981

Docket Nos. 50-338  
50-339

Distribution:

Docket File  
NRC PDR  
Local PDR  
ORB #3 Rdg  
D. Eisenhut  
OELD  
OI&E (3)  
R. A. Clark  
L. Engle  
P. Kreuzer  
NSIC  
TERA

ACRS (10)  
J. Heltemes  
R. Prevatte  
A. Udy (EG&G)

Mr. R. H. Leasburg  
Vice President - Nuclear Operations  
Virginia Electric and Power Company  
Post Office Box 26666  
Richmond, Virginia 23261

Dear Mr. Leasburg:

SUBJECT: ADEQUACY OF ELECTRICAL DISTRIBUTION SYSTEM VOLTAGES FOR THE  
NORTH ANNA POWER STATION, UNITS 1 & 2 (NA-1 & 2)

By letter dated December 1, 1981 (Serial No. 908B) you provided a partial response to the subject as noted above. In your letter you committed to provide a final submittal for NRC review on February 28, 1982.

We and our technical assistance contractor (EG&G) reviewed your December 1, 1981 submittal as well as your September 23, 1981 (Serial No. 980B) submittal regarding the recently installed generator breaker at NA-1.

Based on our review of your submittals, we are transmitting a request for information, as provided in the enclosure to this letter, which will allow EG&G to prepare a Technical Evaluation Report (TER). The TER is necessary, as a first step, in resolving this issue for NA 1 & 2.

We request that the requested information as provided in the Enclosure be submitted at the same time as your commitment acted above, which is February 28, 1981.

Please call us if you have any questions regarding the information requested in the Enclosure.

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

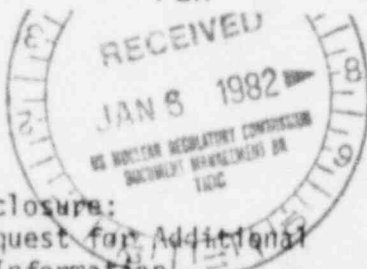
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PDR ADOCK 05000338  
P PDR

Sincerely,

Original signed by:

Leon B. Engle, Project Manager  
Operating Reactors Branch #3  
Division of Licensing

Enclosure:  
Request for Additional  
Information



*Handwritten signatures and initials: J. A. Engle, P. Kreuzer, L. Engle, RAC*

OFFICE	cc: See next page	DL:ORB#3 <i>P. Kreuzer</i>	DL:ORB#3 <i>L. Engle:ms</i>	DL:ORB#3 <i>RAC Clark</i>	
SURNAME					
DATE		12/28/81	12/28/81	12/28/81	

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U.S. Nuclear Regulatory Commission  
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REQUEST FOR INFORMATION  
NORTH ANNA UNITS 1 AND 2  
ADEQUACY OF STATION ELECTRIC DISTRIBUTION  
SYSTEM VOLTAGES

1. Confirm if generator breaker will be utilized for the Unit 2 generator.
2. Submit amended technical specifications to cover the modifications made in the electrical distribution system. The amendment should cover the electrical line-up and equipment required to be operational in both units to assure that two sources of offsite power are made available to the 4160V buses of both units. This includes the AC buses, D.C. systems and auxiliary supporting equipment.
3. Provide detailed information to support the assumption in your December 1, 1981 submittal which stated that Unit 1 normal station service buses will not be fed from the reserve transformers during the worst case voltage conditions. If this is achieved by design features provide a description of such design features that assure such an operation. If design features are not included to prevent this condition, provide a voltage analysis to cover operation under the loading condition.
4. Provide the following information on the generator breaker currently installed in Unit 1.
  - a. Source(s) of operating power;
  - b. The bases used for generator breaker sizing (maximum system fault current that breaker could experience); and
  - c. A table showing generator breaker design specifications, testing required by VEPCO, testing performed and test results. The table should contain as a minimum the following:
    - (1) voltage rating (KV rms);
    - (2) load current (continuous KA);
    - (3) insulation level;
    - (4) interrupting capacity (KA-rms) symmetrical, asymmetrical;
    - (5) close and latch (KA-peak);
    - (6) short time rating (KA)
    - (7) maximum rate of rise recovery voltage; and
    - (8) out-of-phase switching.

- d. Detailed information on out-of-phase switching and protective equipment (sync-check-relays, etc.) installed at North Anna that would preclude out of phase operation of the generator breaker.
- e. What onsite testing will be or has been performed on the generator breaker regarding:
  - (1) preoperational tests;
  - (2) periodic tests; and
  - (3) maintenance frequency.