

January 14, 1985

Docket Nos: 50-390
and 50-391

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500 A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

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Docket Nos. 50-390/391
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Dear Mr. Parris:

Subject: Review of Responses to Power Systems Concerns

The staff has reviewed your March 21, 1984, submittal and Amendments 52 and 53 to the FSAR with regard to SER Open Items 13 and 14 concerning the Watts Bar diesel generators and License Condition 21 regarding testing of communication systems, and has determined that additional information is required to resolve these issues. The enclosure states what information is needed to resolve these items.

We request that you respond to this request for additional information by February 8, 1985, in order to support your fuel load date. If you have any questions concerning this matter, please contact the project manager, T. J. Kenyon, at FTS 492-7266.

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.

Sincerely,

Original Signed By
Elinor G. Adensam

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

Enclosure:
As stated

cc: See next page

DL:LB #4
TKenyon/hmc
1/11/85

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WATTS BAR

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

cc: Herbert S. Sanger, Jr., Esq.
General Counsel
Tennessee Valley Authority
400 West Summit Hill Drive, E 11B 33
Knoxville, Tennessee 37902

Mr. D. Checct
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, Pennsylvania 15230

Mr. Ralph Shell
Tennessee Valley Authority
400 Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Mr. Donald L. Williams, Jr.
Tennessee Valley Authority
400 West Summit Hill Drive, W10B85
Knoxville, Tennessee 37902

Resident Inspector/Watts Bar NPS
c/o U.S. Nuclear Regulatory
Commission
Rt. 2 - Box 300
Spring City, Tennessee 37381

Mr. David Ormsby
Tennessee Valley Authority
400 Chestnut Street, Tower II
Chattanooga, Tennessee 37401

James P. O'Reilly, Regional Administrator
U.S. Nuclear Regulatory Commission,
Region II
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

Mr. David Ellis
Tennessee Valley Authority
400 Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Mr. Mark J. Burzynski
Tennessee Valley Authority
Watts Bar NP
P.O. Box 800
Spring City, Tennessee 37381

ENCLOSURE

OPEN ITEM STATUS
WATTS BAR NUCLEAR PLANT
UNITS 1 AND 2

1. Open Item 13 - D/G Piping Classification

The applicant's submittal of March 21, 1984 provided an inadequate comparison between the diesel engine skid mounted auxiliary system piping design standards and ASME Section III Class 3 (Quality Group 3) requirements. The applicant stated in the submittal that the comparison was general in nature and "a more detailed comparison...would probably yield many differences..." In order for the staff to assure that the piping is equivalent to ASME Section III Class 3 (Quality Group C) piping, the detailed comparison needs to be performed and the results (differences) submitted for evaluation by the staff. Therefore, the applicant is requested to provide the results of a detailed comparison between the D/G auxiliary system design standards and ASME Section III Class 3.

2. Open Item 14 - D/G Auxiliary Design Deficiencies

a. Conformance to ANSI-N-195 and R.G. 1.137

The applicant in his responses does not specify how he meets ANSI-N-195 and Regulatory Guide 1.137, Diesel Generator Fuel Oil System Design. The staff needs a comparison between the D/G fuel oil system design and procedures and the above referred standard and R.G. in order to evaluate the system design. Any deviations from the requirements of the ANSI standard, the regulatory guide, and the standard technical specifications on fuel oil quality which are based on the standards needs to be identified and justified. The applicant should provide this comparison.

b. Crankcase Explosion Protection

The applicant states in his FSAR that a crankcase pressure detector is provided to alarm in the emergency mode and shutdown the engine in the test mode. SRP 9.5.7 acceptable criteria 4h states that in order to meet GDC 17 the following specific criteria must be met:

"Protective measures (such as relief ports) have been taken to prevent unacceptable crankcase explosions and mitigate the consequences of such an event."

The applicant has not provided any information to show that when in the test mode the pressure detector will trip the D/G before the occurrence of a crankcase explosion. Furthermore, an alarm during the emergency mode of operation is not considered a protective measure against unacceptable crankcase explosions nor does it mitigate the consequences of such an event. A more positive means of protection such as relief ports, spring loaded safety crankcase covers, etc., as provided on other EMD/GM emergency diesel generators, should be provided to mitigate the consequences of a crankcase explosion.

3. Licensing Condition Item 21 - Performance Testing of Communication Systems

The applicant in amendment 52 committed to perform preoperational tests only on certain portions of the sound powered telephone system and the codes, alarms and paging systems. The purpose of communication system performance testing during plant preoperational testing is two-fold: 1) to assure that the communication systems are operating properly and 2) to assure that, with the plant equipment operating (maximum background noise level), reliable effective communications with the control room and/or other work stations can be maintained. Thus all communications systems that would be used during normal and emergency conditions need to be tested. The applicant has not committed to this and should do so to resolve this issue.