

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

May 19, 1983

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

Please refer to your April 1, 1983 letter to H. G. Parris entitled "Environmental Qualification of Safety Related Mechanical Equipment Located in Harsh Environment Areas for the Watts Bar Nuclear Plant Units 1 and 2."

TVA does not agree with the NRC's opening statement in the referenced letter which states "the Watts Bar Safety Evaluation Report (SER NUREG-0847, June 1982) states that additional information is needed to determine the extent to which safety-related mechanical equipment complies with the relevant requirements of General Design Criterion 4 (GDC-4)." Regarding the environmental qualification of mechanical equipment, the Watts Bar Nuclear Plant (WBN) SER only states that ". . .the staff will review information submitted by the applicant" and that "included in this review will be the equipment list, the environments for which qualification must be demonstrated, and the qualification methods" and that ". . .the staff will conduct an audit of the applicant's central files of qualification documentation for safety-related electrical and mechanical equipment." No further statements were made which either stated or implied that the submittal of additional information was needed other than that already provided (see FSAR section 3.11 and TVA responses to NRC questions 30.4, 31.26, 31.28, and 31.54).

The referenced letter requested that TVA perform an evaluation of the environmental qualification of mechanical equipment. The letter also requested that a list of mechanical equipment, reviewed for the evaluation, be submitted one month before the site audit on electrical equipment qualification. At the time of the site audit of electrical equipment qualification (October 1, 1983) which is to be three months before fuel loading, you indicated that you would review the results of the analysis performed for all safety-related mechanical equipment located in harsh environment areas. TVA has evaluated this request and our capabilities to perform the evaluation, and have concluded that the schedule proposed by NRC cannot be supported. We are unable to commit to a definite schedule for the completion of this activity until such time as the exact extent of this effort can be determined.

8305250425 830519
PDR ADOCK 05000390
A PDR

A048
110

U.S. Nuclear Regulatory Commission

May 19, 1983

In response to the NRC request, TVA is now proceeding to establish a program plan to determine the degree of environmental qualification of mechanical equipment at WBN. This program plan (along with a schedule) will be submitted to the NRC by June 27, 1983. The program plan will contain provisions for accomplishing the following basic activities necessary to establish the degree of environmental qualification of mechanical equipment.

1. Identify all safety-related active pumps and valves located in a harsh environment necessary to achieve, and maintain the plant in, a safe hot shutdown condition.
2. Identify all essential nonmetallic subcomponents of the identified equipment.
3. Identify the worst case environmental temperature and radiation conditions under which the equipment must remain operable. TVA will also identify radiation contribution from recirculation line process fluids on materials necessary for pressure boundary integrity of the recirculation line.
4. Identify material capabilities of the identified essential nonmetallic subcomponents based on existing documentation.
5. Evaluate the degree of qualification of materials and potential effects of postulated environmental degradation. In order for the equipment to be declared "qualified," all essential nonmetallic components in a particular piece of equipment must have documentation which indicates that the material will not fail in a manner which renders the equipment incapable of performing its intended function in the worst case environment under which the equipment must function.
6. The requirements of TVA's Quality Assurance program will apply to this evaluation.

We believe that the above program constitutes a "good faith" effort to systematically establish that essential safety-related mechanical equipment at Watts Bar conforms to GDC-4. We wish to note that TVA's position is such that completion of this program is not required before unit 1 fuel loading.

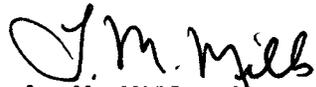
U.S. Nuclear Regulatory Commission

May 19, 1983

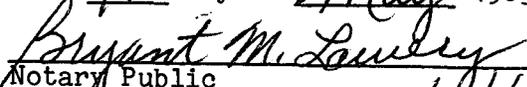
If you have any questions concerning this matter, please get in touch with Dave Ellis at FTS 858-2681.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 19th day of May 1983


Notary Public

My Commission Expires 4/8/86

cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303