

JAN 28 1998

EA 98-030

Tennessee Valley Authority
ATTN: Mr. O. J. Zeringue
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Subject: NRC INSPECTION REPORT NOS. 50-327/97-04 AND 50-328/97-04

Dear Mr. Zeringue:

Thank you for your response of July 21, 1997, to our Notice of Violation issued on June 20, 1997, concerning activities conducted at your Sequoyah facility. We have evaluated your response and found that it meets the requirements of 10 CFR 2.201.

After reviewing your letter and consulting with the Office of Nuclear Reactor Regulation and the Office of Enforcement, we agree with your conclusion that Violation A of the June 20, 1997, Notice of Violation did not constitute a violation as written. Accordingly, we will adjust our records to reflect that no violation of Technical Specification surveillance requirements occurred with respect to Violation A.

Our review, however, identified that your procedure steps for declaring the initiation of physics testing, Mode 2 entry, and the initiation of control bank withdrawal were in conflict, which resulted in a failure to implement them as written. Our inspectors determined that you have since corrected this conflict to provide consistency. Therefore, due to the low safety significance of the procedure conflict and NRC's prior determinations regarding this overall matter, the NRC is exercising discretion in accordance with Section VII.B.6 of the Enforcement Policy, NUREG-1600, and is not citing this violation.

9802040091 980128
PDR ADOCK 05000327
P PDR



ADOCK Q

IEQ1

TVA

2

A detailed analysis of your response and NRC's conclusions are enclosed. If you have any additional questions regarding this matter, please contact me.

Sincerely,

(Original signed by J. R. Johnson)

Jon R. Johnson, Director
Division of Reactor Projects

Docket Nos.: 50-327 and 50-328
License Nos.: DPR-77 and DPR-79

Enclosure: Evaluations and Conclusion

cc w/encl: (See page 3)

cc w/encl:

Senior Vice President
Nuclear Operations
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Mr. J. A. Bailey
Vice President
Engineering and Technical Services
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Mr. M. Bajestani
Site Vice President
Sequoyah Nuclear Plant
Tennessee Valley Authority
P. O. Box 2000
Soddy-Daisy, TN 37379

General Counsel
Tennessee Valley Authority
ET 10H
400 West Summit Hill Drive
Knoxville, TN 37902

Mr. R. R. Baron
General Manager Nuclear
Assurance
4J Blue Ridge
1101 Market Street
Chattanooga, TN 37402-2801

Mr. M. J. Burzynski, Manager
Nuclear Licensing
Tennessee Valley Authority
4J Blue Ridge
1101 Market Street
Chattanooga, TN 37402-2801

Mr. P. Salas, Manager
Licensing and Industry
Sequoyah Nuclear Plant
P. O. Box 2000
Soddy Daisy, TN 37379

Mr. J. T. Herron
Plant Manager
Sequoyah Nuclear Plant
Tennessee Valley Authority
P. O. Box 2000
Soddy-Daisy, TN 37379

Director
Division of Radiological Health
3rd Floor, L and C Annex
401 Church Street
Nashville, TN 37243-1253

County Executive
Hamilton County Courthouse
Chattanooga, TN 37402-2801

Distribution w/encl: (See page 4)

TVA

4

Distribution w/encl:

J. R. Johnson, RII
 M. S. Lesser, RII
 S. E. Sparks, RII
 F. J. Hebdon, NRR
 R. W. Hernan, NRR
 W. C. Bearden, RII
 C. F. Smith, RII
 D. H. Thompson, RII
 L. S. Mellen, RII
 E. D. Testa, RII
 PUBLIC

NRC Resident Inspector
 U. S. Nuclear Regulatory Commission
 2600 Igou Ferry
 Soddy-Daisy, TN 37379

NRC Resident Inspector
 U. S. Nuclear Regulatory Commission
 1260 Nuclear Plant Road
 Spring City, TN 37381

*of concern
 per telephone
 on 01/27/98
 M. Sattman*

OFFICE	DRP/RTI	DRP/RTI	EICS/RIA	ORA/RTI				
SIGNATURE	<i>W Lesser</i>	<i>R Shannon</i>	<i>ABoland</i>	NLO	<i>CEvans</i>			
NAME	W Lesser:vyg	R Shannon	ABoland	CEvans				
DATE	1/16/98	1/20/98	1/26/98	1/16/98	1/21/98	1/ /98	1/ /98	1/ /98
COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: G:\BR6.SQ\PHYSICIS.DEN

EVALUATIONS AND CONCLUSION

On June 20, 1997, a Notice of Violation (Notice) was issued for failure to meet the requirements of performing a channel functional test on the nuclear instrumentation system (NIS) within 12 hours of initiating physics testing. The Tennessee Valley Authority (Sequoyah) responded to the Notice on July 21, 1997. Sequoyah based its denial of this violation on the fact that there is not a clear definition for the initiation of physics testing. The NRC's evaluations and conclusion regarding the licensee's arguments are as follows:

Restatement of Violation A

Technical Specification (TS) 4.10.3.2, Physics Tests Surveillance Requirements, requires that each Intermediate and Power Range Channel shall be subjected to a CHANNEL FUNCTIONAL TEST within 12 hours prior to initiating PHYSICS TESTS.

Contrary to the above, on May 11, 1997, each Intermediate and Power Range Channel was not subjected to a CHANNEL FUNCTIONAL TEST within 12 hours prior to initiating PHYSICS TESTING, in that the 12-hour channel functional test for Power Range Channel instrument NI-42 and Intermediate Range Channel NI-3G expired prior to the initiation of Physics Testing.

Summary of Licensee's Response to Violation A

The licensee argued that their procedure for conducting low power physics testing explicitly defines the start of physics tests as the time that permission from the Senior Reactor Operator (SRO) has been obtained to begin the first withdrawal of control rod bank A. The procedure also states that this time would stop the clock for nuclear instrumentation testing for startup. The licensee further stated that in accordance with this procedure, permission was obtained at 2:13 a.m., from the SRO to begin low power physics testing and to perform rod pulls to critical. Personnel then began low power physics test activities which included data collection to obtain average NIS baseline count rates before pulling control banks. The licensee stated that the data collection was both necessary and essential and were well within the TS definition of PHYSICS TESTS.

The licensee noted that there is a wide range of industry practices in defining the start of physics testing. Some facilities define the start of physics testing at the point at which the operators begin to pull the shutdown banks and others at the point of pulling control banks. The licensee also stated that there was a lack of specific regulatory guidance on the issue.

The licensee was also concerned with the negative impact of starting physics tests at the point where the reactor was critical due to potentially being required to remove a channel for test while performing a startup.

Enclosure

NRC Evaluation of Licensee's Response

The NRC staff has carefully reviewed the licensee's response. The staff acknowledges the licensee's finding that there is a wide variation throughout the industry in the interpretation/definitions of "starting physics testing". The staff does not have a preference for the specific point at which the initiation of physics tests can be declared. Therefore, since the licensee performed the required surveillances within 12 hours of declaring the initiation of physics testing, the violation, as written did not take place. The staff notes that the initiation point should be consciously, logically, and consistently determined. The staff determined that there was a procedural conflict which, in this case, resulted in a failure to implement the procedure as written.

The licensee's response did not address the problem of procedural conflict as described in the inspection report. Elsewhere the licensee's procedure states, "Declare Mode 2 entry and initiation of physics testing, and record the time, and initiate control bank withdrawal in manual mode." This step clearly indicates that these all happen at the same time. In the situation involved, the licensee declared that physics tests were initiated when the SRO gave permission to begin the withdrawal of control bank A. The staff notes that in granting permission, the SRO must ensure that the control bank is capable of both physically and procedurally being withdrawn. In this case, control bank withdrawal was not initiated for 27 minutes due a procedural problem with a feedwater pump, which was in the process of being corrected. It is apparent that the SRO gave permission to withdraw control banks prematurely in order to meet the TS surveillance requirement, as it was to expire within the next five minutes. It is also apparent that the procedural steps conflicted and were not implemented as written. This would constitute a violation of Technical Specification 6.8.1, which requires written procedures to be established, implemented and maintained covering such activities.

The licensee's response stated that personnel began low power physics test activities which included data collection to obtain average baseline count rates before pulling control banks. The NRC agrees that obtaining baseline count rates is both necessary and essential; however, this task appears to be required in a procedural step (6.1.4) prior to declaring the initiation of physics testing (6.1.6). This is another indication that the licensee's expectation is different than the requirement of the procedure.

In addition, the licensee's response noted the negative impact of starting physics tests at the point where the reactor was critical due to potentially being required to remove a channel for test while performing a startup. The staff agrees with the basis of the statement that the nuclear instruments should not be removed for testing during a startup.

Conclusion

The staff concluded that the licensee met the requirements of TS surveillance 4.10.3.2, and therefore the violation is withdrawn.

The staff also concluded that the licensee's procedure provided conflicting guidance for initiating the start of physics testing and performing a plant startup. This resulted in a failure to implement the procedure as written. Subsequently, the resident inspectors verified that the licensee revised the procedural guidance in the Low Power Physics Test procedure, to clarify conditions for the start of physics tests and for initiating rod withdrawal and Mode 2 entry. Based on the satisfactory completion of corrective actions by the licensee, the reduced safety significance of the violation, and NRC's prior regulatory determination regarding this matter, the NRC is exercising discretion and not citing this violation in accordance with Section VII.B.6 of the Enforcement Policy.