

DCS-016

FEB 21 1985

Docket Nos.: 50-440  
and 50-441

Mr. Murray R. Edelman, Vice President  
Nuclear Operations Group  
The Cleveland Electric Illuminating Company  
P. O. Box 5000  
Cleveland, Ohio 44101

Dear Mr. Edelman:

Subject: Request for Additional Information on the Initial Test  
Program for the Perry Nuclear Power Plant (Units 1 and 2)

The staff evaluation findings on the Perry Initial Test Program documented in the SER and SER supplements through Supplement No. 5 pertain to its review of the FSAR through Amendment 6. The staff has completed its review of FSAR amendments through Amendment 15 and has identified the need for your staff to respond to the enclosed request for additional information. Your prompt response to the staff's request is urged, particularly in view of the fact that Perry Unit 1 is undergoing preoperational testing, and that all required safety-related system testing needs to be appropriately documented in the FSAR as stipulated in Regulatory Guide 1.68. It is also requested that your response be copied to Mr. R. Gruel, Battelle Pacific Northwest Laboratories to help expedite the staff's review of your responses.

Your staff should advise the Perry Project Manager, within 5 days after receipt of this letter, when your responses to the enclosed items will be provided.

Sincerely,

ORIGINAL SIGNED BY:

*Paul O'Connor*

B. J. Youngblood, Chief  
Licensing Branch No. 1  
Division of Licensing

*for 1*

Enclosure: As stated

cc: See next page

DISTRIBUTION:

<u>Docket File</u>	MRushbrook
NRC PDR	JStefano
L PDR	OELD
NSIC	ACRS (16)
PRC System	EJordan
LB#1 R/F	RHeischman
DZiemann	RBecker
RLanksbury, RIII	JStreeter, RIII

*Paul O'Connor for*

PSRB/DHFS  
DZiemann  
02/20/85

LB#1:DL  
JStefano:kab  
02/19/85

LB#1:DL *swt for BSY*  
BJYoungblood  
02/21/85

8502260041 850221  
PDR ADOCK 05000440  
E PDR

PERRY

FEB 21 1985

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STAFF POSITIONS AND REQUEST FOR ADDITIONAL INFORMATION  
PERRY NUCLEAR POWER PLANT, UNIT 1640.4  
(14.2.11)

Modify the Test Program Schedule (FSAR Section 14.2.11) to reinstate that preoperational and acceptance test results should be reviewed and approved prior to fuel load, and that if any tests should be deferred until after fuel load, the following information and justification will be provided to the NRC: (1) a list of all tests or portions of tests involved, (2) technical justification for these portions, and (3) anticipated completion date for each test.

640.6  
(1.8)  
(14.2.12)

The Standby Diesel Generator Preoperational Test (FSAR Subsection 14.2.12.1.31), or other test abstracts as appropriate, should be modified to reflect the following positions stated in Regulatory Guide 1.108, or FSAR Table 1.8-1 should be modified to provide expanded technical justification for any exceptions to this guide.

- (1) Expand testing to explicitly cover testing of the HPCS diesel (C.2.a).
- (2) Correct FSAR Table 1.8-1 to delete the exception to performing the full-load-carrying capability test for 2 hours at the 2 hour load rating. Note that the Standby Diesel Generator Test properly incorporates testing at the 2 hour load rating (C.2.a.3).

640.21  
(14.2.12)

The Class 1E 125 Volt D-C System Preoperational Test (FSAR Subsection 14.2.12.1.30) should demonstrate that loads necessary for safe shutdown can be started and operated at the minimum battery voltage.

640.24  
(14.2.12)

The Nuclear Boiler System Preoperational Test (FSAR Subsection 14.2.12.1.1) should verify that ADS valve accumulators and check valves perform as described in FSAR Subsection 5.2.2.4.1.

640.41  
(14.2.12)

The Safety Related Instrument Air Test (FSAR Subsection 14.2.12.1.43) should include or reference loss-of-air tests similar to those described in the Non-Safety Related Instrument Air System Loss of Instrument Air Acceptance Test (FSAR Subsection 14.2.12.3.15.2). Note that Regulatory Guide 1.68.3, Preoperational Testing of Instrument and Control Air Systems, can be used in lieu of Regulatory Guide 1.80.

640.51  
(1.8)  
(14.2.12)

Modify the Shutdown from Outside the Control Room Test (FSAR Subsection 14.2.12.2.25) to include test initiation with the turbine generator in operation and plant systems in normal configuration (automatic controls in operation), or modify your exception to position C.3 of Regulatory Guide 1.68.2, as stated in FSAR Table 1.8-1, to provide expanded technical justification (explain how this test might result in damage to plant equipment) for not performing this test in accordance with Regulatory Guide 1.68.2.

640.56  
(1.8)  
(14.2.12)

The Turbine Trip and Generator Load Rejection Test (FSAR Subsection 14.2.12.2.24) should be initiated by opening the main breaker such that the T-G will be subjected to the maximum overspeed condition, or modify FSAR Table 1.8-1 to provide technical justification for exception to Regulatory Guide 1.68, Appendix A.5.n.n.

640.57  
(14.2.12)

Our review of the initial test program description disclosed that the operability of several of the systems and components listed in Regulatory Guide 1.68 (Revision 2), Appendix A may not be adequately demonstrated by the initial test program. Expand FSAR Subsection 14.2.12 (Individual Test Descriptions) to address the following items:

Preoperational Testing

R.G. 1.68 Appendix A	FSAR Section	Description
1.e.10 1.j.17	10.4.7.2	Feedwater heaters and drains and associated temperature, level, and bypass control systems
1.e.11	10.4.6.5	Condensate cleanup system
1.e.12	10.4.2.5	Main condenser evacuation system
1.j.25	7.7.1.8	Process computer
1.1.8	9.3.2.4	Process sampling system
1.m.1 1.m.3	9.1.3	Siphon breakers on fuel pool lines and operability and leak tests of sectionalizing devices and drains and leak tests of gaskets or bellows in the refueling canal and fuel storage pool

R.G. 1.68 Appendix A	FSAR Section	Description
1.n.18	9:2.6.2	Freeze protection heater on condensate storage tank recirculation line

Startup Testing

5.n	4.4.6.1.4	Loose parts monitoring
5.f.f	9.4.3.2.2	Steam tunnel cooling system

640.58  
(14.2.12)

The following startup test abstracts should be modified to clarify the noted items:

- (1) The Control Rod Drive System Test (FSAR Subsection 14.2.12.2.5) Level 1 acceptance criteria should describe the allowable number of slow and inoperative CRDs.
- (2) The RCIC System Test (FSAR Subsection 14.2.12.2.12) Level 1 acceptance criteria should clarify reference to Figure 4.2-7. If this reference should be Figure 14.2-7, then this figure should be reinstated.
- (3) The Water Level Reference Leg Temperature Test (FSAR Subsection 14.2.12.2.13.1) appears to have omitted Level 2 acceptance criteria for the Shutdown Range and Fuel Range level instrument systems.
- (4) The Recirculation System - Trip of Two Pumps (FSAR Subsection 14.2.12.2.27.2) acceptance criteria reference Figure 14.2-6, which no longer addresses the concerns of this test. Either reinstate the appropriate figure, or modify the test to delete reference to Figure 14.2-6 and further modify Figure 14.2-6 to reference the test abstract to which it refers.

640.59  
(1.8)  
(14.2.12)

The Full Reactor Isolation Test (FSAR Subsection 14.2.12.2.22.2) and FSAR Table 14.2-2 should commit to conducting the simultaneous full closure of all MSIVs at Test Condition 6 (95% power), or technical justification should be provided in FSAR Table 1.8-i for exception to Regulatory Guide 1.68, Appendix A.5.m.m.

640.60  
(14.2.12)

The System Preoperational Vibration Test (FSAR Subsection 14.2.12.4.1) should be modified to delete the note after Test Objective 4. It is not appropriate for the engineer to determine what portions of the test may be waived. Any test deviations should be processed through normal review and approval channels.

640.61  
(14.2.12)

The following preoperational and acceptance test abstracts should be modified to clarify the noted items:

- (1) The reference to drywell leakage testing in FSAR Subsection 14.2.12.1 should reference Item 640.30, not 640.31.
- (2) The Condensate System Acceptance Test (FSAR Subsection 14.2.12.3.8) should reference Item 640.17, not 640.43.
- (3) The Containment Vessel Chilled Water System Test (FSAR Subsection 14.2.12.3.14) should reference Item 640.44, not 640.14.
- (4) The acceptance test abstracts contained in the Q&R Section 14.2 should be deleted as they have been revised and incorporated into FSAR Subsection 14.2.12 as preoperational or acceptance test abstracts.