

September 26, 1995

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Mr. Donald C. Shelton
 Acting Vice President Nuclear - Perry
 Centerior Service Company
 P. O. Box 97, A200
 Perry, OH 44081

SUBJECT: AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NO. NPF-58 - PERRY
 NUCLEAR POWER PLANT, UNIT NO. 1 (TAC NO. M92521)

Dear Mr. Shelton:

The Commission has issued the enclosed Amendment No. 73 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1. This amendment revises the Technical Specifications in response to your application dated June 1, 1995.

This amendment revises the Technical Specifications to make them more restrictive regarding control rod drive scram time testing.

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by:

Jon B. Hopkins, Sr. Project Manager
 Project Directorate III-3
 Division of Reactor Projects III/IV
 Office of Nuclear Reactor Regulation

Docket No. 50-440

- Enclosures: 1. Amendment No. 73 to License No. NPF-58
 2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 26, 1995

Mr. Donald C. Shelton
Acting Vice President Nuclear - Perry
Centerior Service Company
P. O. Box 97, A200
Perry, OH 44081

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Sincerely,

A handwritten signature in cursive script that reads "Jon B. Hopkins, Sr.".

Jon B. Hopkins, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosures: 1. Amendment No. 73 to
License No. NPF-58
2. Safety Evaluation

cc w/encls: See next page

Mr. Donald C. Shelton
Centerior Service Company

cc:

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Perry Nuclear Power Plant
Unit Nos. 1 and 2

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Ohio Dept. of Industrial Relations
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Columbus, Ohio 43216

The Honorable Lawrence Logan
Mayor, Village of Perry
4203 Harper Street
Perry, Ohio 44081

The Honorable Robert V. Orosz
Mayor, Village of North Perry
North Perry Village Hall
4778 Lockwood Road
North Perry Village, Ohio 44081

Attorney General
Department of Attorney General
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Radiological Health Program
Ohio Department of Health
P.O. Box 118
Columbus, Ohio 43266-0118

Ohio Environmental Protection
Agency
DERR--Compliance Unit
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P.O. Box 1049
Columbus, Ohio 43266-0149

Mr. Thomas Haas, Chairman
Perry Township Board of Trustees
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State of Ohio
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Mr. Richard D. Brandt, Plant Manager
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 73
License No. NPF-58

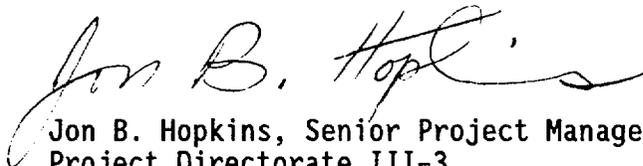
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by The Cleveland Electric Illuminating Company, Centerior Service Company, Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company, and Toledo Edison Company (the licensees) dated June 1, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 73 are hereby incorporated into this license. The Cleveland Electric Illuminating Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented not later than 90 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jon B. Hopkins, Senior Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of issuance: September 26, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 73

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

3/4 1-7

B 3/4 1-2

Insert

3/4 1-7

3/4 1-7a

B 3/4 1-2

B 3/4 1-2a

REACTIVITY CONTROL SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

- b. With a "slow" control rod(s) not satisfying ACTION a.1, above:
1. Declare the "slow" control rod(s) inoperable, and
 2. Perform the Surveillance Requirements of Specification 4.1.3.2.c at least once per 60 days when operation is continued with three or more "slow" control rods declared inoperable.

Otherwise, be in at least HOT SHUTDOWN within 12 hours.

- c. With the maximum scram insertion time of one or more control rods exceeding the maximum scram insertion time limits of Specification 3.1.3.2 as determined by Specification 4.1.3.2.c, operation may continue provided that:

1. "Slow" control rods, i.e., those which exceed the limits of Specification 3.1.3.2, do not make up more than 20% of the 10% sample of control rods tested.
2. Each of these "slow" control rods satisfies ACTION a.1.
3. The eight adjacent control rods surrounding each "slow" control rod are:
 - a) Demonstrated through measurement within 12 hours to satisfy the maximum scram insertion time limits of Specification 3.1.3.2, and
 - b) OPERABLE
4. The total number of "slow" control rods, as determined by Specification 4.1.3.2.c, when added to the total number of ACTION a.3, as determined by Specification 4.1.3.2.a and b, does not exceed 7.

Otherwise, be in at least HOT SHUTDOWN within 12 hours.

- d. The provisions of Specification 3.0.4 are not applicable.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

4.1.3.2 The maximum scram insertion time of the control rods shall be demonstrated and, during single control rod scram time tests, the control rod drive pumps shall be isolated from the associated scram accumulator:

- a. For all control rods with reactor coolant pressure greater than or equal to 950 psig and prior to THERMAL POWER exceeding 40% of RATED THERMAL POWER following CORE ALTERATIONS or after a reactor shutdown that is greater than 120 days,
- b. For each affected control rod after work on the control rod(s) or control rod drive system that could affect scram time:
 1. At any reactor coolant pressure prior to declaring control rod(s) OPERABLE, and
 2. With reactor coolant pressure greater than or equal to 950 psig*, and
- c. For at least 10% of the control rods, on a rotating basis, at least once per 120 days of POWER OPERATION, with reactor pressure greater than or equal to 950 psig.

* The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITIONS 1 and 2 provided this surveillance is completed prior to THERMAL POWER exceeding 40% of RATED THERMAL POWER.

REACTIVITY CONTROL SYSTEMS

BASES

3/4.1.3 CONTROL RODS

The specification of this section ensure that (1) the minimum SHUTDOWN MARGIN is maintained, (2) the control rod insertion times are consistent with those used in the safety analyses, and (3) limit the potential effects of the rod drop accident. The ACTION statements permit variations from the basic requirements but at the same time impose more restrictive criteria for continued operation. A limitation on inoperable rods is set such that the resultant effect on total rod worth and scram shape will be kept to a minimum. The requirements for the various scram time measurements ensure that any indication of systematic problems with rod drives will be investigated on a timely basis.

Damage within the control rod drive mechanism could be a generic problem, therefore with a control rod immovable because of excessive friction or mechanical interference, operation of the reactor is limited to a time period which is reasonable to determine the cause of the inoperability and at the same time prevent operation with a large number of inoperable control rods.

Control rods that are inoperable for other reasons are permitted to be taken out of service provided that those in the nonfully-inserted position are consistent with the SHUTDOWN MARGIN requirements.

The number of control rods permitted to be inoperable could be more than the eight allowed by the specification, but the occurrence of eight inoperable rods could be indicative of a generic problem and the reactor must be shutdown for investigation and resolution of the problem.

The control rod system is designed to bring the reactor subcritical at a rate fast enough to prevent the MCPR from becoming less than the Safety Limit MCPR during the limiting power transient analyzed in Chapter 15 of the USAR. This analysis shows that the negative reactivity rates resulting from the scram with the average response of all the drives as given in the specifications, provide the required protection and MCPR remains greater than the Safety Limit MCPR. The occurrence of scram times longer than those specified should be viewed as an indication of a systematic problem with the rod drives and therefore the surveillance interval is reduced in order to prevent operation of the reactor for long periods of time with a potentially serious problem. For control rod drive scram time testing at less than 950 pounds per square inch - gauge (psig), the following scram times to notch position 13 should be used as acceptance criteria:

0 psig - .94 seconds

600 psig - 1.13 seconds

950 psig - 1.40 seconds

Acceptable scram times when testing at pressures between the values given above should be linearly interpolated.

REACTIVITY CONTROL SYSTEMS

BASES

3/4.1.3 CONTROL RODS (Continued)

The scram discharge volume is required to be OPERABLE so that it will be available when needed to accept discharge water from the control rods during a reactor scram and will isolate the reactor coolant system from the containment when required.

Control rods with inoperable accumulators are declared inoperable and Specification 3.1.3.1 then applies. This prevents a pattern of inoperable accumulators that would result in less reactivity insertion on a scram than has been analyzed even though control rods with inoperable accumulators may still be inserted with normal drive water pressure. Operability of the accumulator ensures that there is a means available to insert the control rods even under the most unfavorable depressurization of the reactor.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NO. NPF-58

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

1.0 INTRODUCTION

By a letter dated June 1, 1995, The Cleveland Electric Illuminating Company, et al. (licensees), proposed an amendment to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1. The amendment would revise the Technical Specifications (TS) to make them more restrictive regarding control rod drive (CRD) scram time testing. CRD scram time testing would be required following maintenance prior to considering the CRD operable, and could be performed at any reactor pressure. Additional testing would be required when reactor coolant pressure is greater than or equal to 950 psig and prior to 40 percent rated thermal power.

2.0 EVALUATION

Following maintenance or modification performed on control rods, current TS require CRD scram time testing in OPERATIONAL CONDITION (mode) 2 with reactor coolant pressure greater than or equal to 950 psig. The proposed TS would require CRD scram time testing to be performed prior to considering the CRD operable; however, the testing could be performed at any reactor pressure and will typically be performed prior to entry into mode 2. Also, additional testing is required to be performed when reactor coolant pressure is greater than or equal to 950 psig and prior to 40% rated thermal power. The proposed requirement is more restrictive than present TS requirements.

The proposed CRD scram time TS requirements are in accordance with the Improved Technical Specifications (ITS) which were issued for Perry by the NRC on June 23, 1995. However, since the ITS will not be implemented until approximately June 1996, the licensee requested this amendment in order to have the new CRD scram time test requirements for the upcoming refueling outage. Even though the proposed requirements are more restrictive, they allow the testing to be performed outside of the critical path for restart.

The NRC staff has reviewed the proposed TS, and based on the change being more restrictive and in accordance with the approved ITS, finds the change acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Ohio State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change to a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding (60 FR 39452). Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Hopkins

Date: September 26, 1995