

May 29, 1987

Docket No.: 50-440

DISTRIBUTION:

Mr. Murray R. Edelman, Vice President
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The Cleveland Electric Illuminating
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Wanda Jones	

Dear Mr. Edelman:

SUBJECT: TECHNICAL SPECIFICATION CHANGE REQUEST RELATING TO LEAK TESTING OF
MAIN STEAM ISOLATION VALVES (TAC NO. 65289)

RE: Perry Nuclear Power Plant, Unit No. 1

The Commission has issued the enclosed Amendment No. 5 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 4, 1987.

This amendment grants a one-time exception to Technical Specification 4.6.1.2.f to extend the leak testing interval of the Main Steam Isolation Valves (MSIVs) in steamline "A" until July 12, 1987. The MSIVs in steamline "A" would otherwise be required to be tested by May 31, 1987.

We have reviewed the exigent circumstances associated with your request and have concluded that these changes to the TSs are necessary to allow Perry Unit 1 to continue startup testing and operation. We have also concluded that you provided a sufficient basis for finding that the exigent circumstances could not have been avoided, as required by 10 CFR 50.91(a)(6).

A copy of our Safety Evaluation is also enclosed. Notice of Issuance and Final Determination of No Significant Hazards Consideration and Opportunity for Hearing will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Timothy G. Colburn, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

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PDR ADDCK 05000440
P PDR

Enclosures:

1. Amendment No. 5 to License No. NPF-58
2. Safety Evaluation

cc: See next page

PD31/LA/*m*
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5/29/87

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[Signature]
5/29/87

Mr. Murray R. Edelman
The Cleveland Electric
Illuminating Company

Perry Nuclear Power Plant
Unit 1

cc:

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

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5
License No. NPF-58

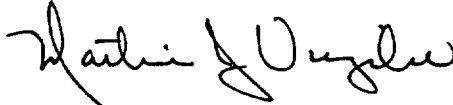
1. The Nuclear Regulatory Commission (the Commission) has found that
 - A. The application for amendment by Cleveland Electric Illuminating Company, Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company, and Toledo Edison Company (the licensees) dated May 4, 1987, complies with the 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:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 5 are hereby incorporated into this license. 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 May 31, 1987.

FOR THE NUCLEAR REGULATORY COMMISSION



Martin J. Virgilio, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance:
May 29, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 5

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following page of the Appendix "A" Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change. Overleaf page provided to maintain document completeness.

Remove
3/4 6-5

Insert
3/4 6-5

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within $0.25 L_a$. The formula to be used is:
$$[L_o + L_{am} - 0.25 L_a] \leq L_c \leq [L_o + L_{am} + 0.25 L_a]$$
 where L_c = supplemental test result; L_o = superimposed leakage; L_{am} = measured Type A leakage.
 2. Has duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
 3. Requires the quantity of gas injected into the primary containment or bled from the primary containment during the supplemental test to be between $0.75 L_a$ and $1.25 L_a$.
- d. Type B and C tests shall be conducted with gas at P_a , 11.31 psig*, at intervals no greater than 24 months except for tests involving:
1. Air locks,
 2. Main steam line isolation valves,
 3. Valves pressurized with fluid from a seal system,
 4. All containment isolation valves in hydrostatically tested lines per Table 3.6.4-1 which penetrate the primary containment, and
 5. Purge supply and exhaust isolation valves with resilient material seals.
- e. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- f. Main steam line isolation valves shall be leak tested at least once per 18 months.**
- g. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J of 10 CFR 50 Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least $1.10 P_a$, 12.44 psig, and the seal system capacity is adequate to maintain system pressure for at least 30 days.
- h. All containment isolation valves in hydrostatically tested lines per Table 3.6.4-1 which penetrate the primary containment shall be leak tested at least once per 18 months.
- i. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirements 4.6.1.8.3. and 4.6.1.8.4.
- j. The provisions of Specification 4.0.2 are not applicable to Specifications 4.6.1.2.a, 4.6.1.2.b, 4.6.1.2.c, and 4.6.1.2.d.

*Unless a hydrostatic test is required per Table 3.6.4-1.

**Except for valves 1B21-F022A and 1B21-F028A, which shall be leak tested prior to July 12, 1987. This exception expires on July 12, 1987.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each primary containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to 2.5 scf per hour at P_a , 11.31 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and #.

ACTION:

- a. With one primary containment air lock door in one or both air locks inoperable:
 1. Maintain at least the OPERABLE air lock door closed* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed* at least once per 31 days.
 3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 4. Otherwise, in OPERATIONAL CONDITION #, suspend all operation involving handling of irradiated fuel in the primary containment, CORE ALTERATIONS, and operations with a potential for draining the reactor vessel.
 5. The provisions of Specification 3.0.4 are not applicable.
- b. With a primary containment air lock inoperable in OPERATIONAL CONDITIONS 1, 2, or 3, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With a primary containment air lock inoperable, in OPERATIONAL CONDITION #, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or suspend all operations involving handling of irradiated fuel in the primary containment, CORE ALTERATIONS, and operations with a potential for draining the reactor vessel.

#When handling irradiated fuel in the primary containment, during CORE ALTERATIONS, and operations with a potential for draining the reactor vessel.

*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 5 TO FACILITY OPERATING LICENSE NO. NPF-58

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

1.0 INTRODUCTION

By letter dated May 4, 1987, Cleveland Electric Illuminating Company (CEI), Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company, and Toledo Edison Company (the licensees) requested an amendment to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1. The proposed amendment would grant a one-time exception to Technical Specification (TS) 4.6.1.2.f to extend the leak testing interval of the Main Steam Isolation Valves (MSIVs) in steamline "A" until July 12, 1987. Per current TS, the surveillance interval for the Type C leak tests for the MSIVs is 18 months; however, TS 4.0.2 allows this interval to be extended up to 22½ months as long as the combined interval for three consecutive intervals does not exceed 3.25 times 18 months. The MSIVs on main steamline "A" were pre-operationally leak tested on July 13, 1985 with acceptable results for both the valves. The current TS requires leak testing by May 31, 1987. In their submittal, the licensees proposed to postpone the testing date until July 12, 1987; i.e., to extend the surveillance interval between two consecutive leak tests for the MSIVs on main steamline "A" to 24 months. The licensees stated that without approval of their extension request, the unit would require a shutdown on May 31, 1987. Our evaluation based on the above submittal is given below.

2.0 EVALUATION

The current leak test interval for the MSIVs, i.e., 18 months, is sufficient to allow testing during the refueling outage of an average fuel cycle for a BWR. These tests are conducted to insure that the leakage rate for any one main steamline through the MSIVs when tested at Pa, 11.31 psig, is less than or equal to 25 scf per hour, the value assumed in the loss of coolant accident (LOCA) dose evaluation in the plant Safety Evaluation Report (SER).

The intent of TS 4.6.1.2.f is to require a leakage test for the MSIVs during each refueling outage as required by Appendix J for Type C tests. The refueling outage has been specified in Appendix J because it represents a time period which occurs at regular time intervals throughout the life of a plant and is of sufficient duration to accommodate all the Type C tests without requiring a unique plant shutdown for normal maintenance.

In support of their requested extension for conducting Type C tests for the two MSIVs on main steamline "A", the licensees stated that they received the low power operating license for Perry, Unit 1, on March 18, 1986, and commenced nuclear heatup in August 1986. The licensees pointed out that as a result, the MSIVs for Unit 1 have seen only nine months of active service. The licensees further stated that since they had recently experienced a forced outage to repair the main steamline drain header during which time they modified some reactor vessel water level steam taps, they do not need the previously scheduled May/June 1987 outage. In a telephone conversation with the NRC staff on May 14, 1987, the licensees stated that they currently plan to have a maintenance outage in July 1987 during which time they would complete the above leak tests as well as other leak tests which are required to be completed in 1987 per the unit TSs. Also, in the telephone conversation, the licensees stated that they do not expect the first refueling outage for the unit any earlier than the last quarter of 1988.

The licensees' proposed change to TS 4.6.1.2.f requires a leak test of the two MSIVs on main steamline "A" prior to July 12, 1987. The NRC staff notes that the proposed schedule for leak testing the two MSIVs will not exceed the time interval of two years since they were last tested. Therefore, the staff finds that the proposed change still meets the Appendix J requirement for Type C test interval.

Based on the above, the staff concludes that the licensees' proposed change to Perry, Unit 1, TS 4.6.1.2.f, which applies only to the two MSIVs on main steamline "A" for one time, is acceptable.

3.0 EXIGENT CIRCUMSTANCES

On April 10, 1987, CEI was granted an earlier TS exception for the operability of the Reactor Core Isolation Cooling (RCIC) system, which expires on May 31, 1987. The basis for the May 31st date was that modifications to the water level instruments which had proved successful during RCIC system testing were to be installed on all reference legs. These modifications were to be installed during a planned May-June 1987 maintenance outage; and it was planned that the steamline "A" MSIVs would be leak tested in accordance with the TS 4.6.1.2.f test time interval at that time. However, during a recent unplanned forced outage, the RCIC system instrument modifications were completed. Therefore, the only item which would force the plant to enter into a planned outage on May 31, 1987, is the leak testing of the MSIVs in steamline "A." Since CEI only recently determined (letter dated May 1, 1987) that the post-modification testing on all of the reactor vessel water level instrumentation was performed successfully prior to the planned maintenance outage, there was insufficient time to process this amendment in the normal manner, which allows 30 days for public comment following publication of a notice of the proposed action in the Federal Register. However, there was sufficient time for a two-week comment period. Therefore, CEI requested that this amendment be processed under exigent circumstances, in accordance with 10 CFR 50.91(a)(6).

The staff has reviewed the circumstances associated with the licensees' request and agrees that the amendment is necessary for continuation of startup testing and that failure to act upon the request in a timely manner would require the licensees to unnecessarily interrupt startup testing and require the unit to shut down. The staff concluded that this situation could not have been avoided and, therefore, valid exigent circumstances exist, as defined by 10 CFR 50.91(a)(6).

3.1 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with a proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The licensees have provided an analysis of their proposed amendment request in relation to the above standards and have concluded that it involves no significant hazards considerations. The Commission also has made a final determination that the amendment request involves no significant hazards considerations, based on the above standards and the following considerations:

The proposed change does not increase the probability or consequences of an accident previously evaluated. CEI is proposing to perform leak testing of the MSIVs in steamline "A" six weeks later than presently required in the Plant TSs. The Commission's regulations in 10 CFR 50, Appendix J, "Primary Containment Leakage Testing for Water-Cooled Power Reactors," requires Type C tests to be conducted at intervals no greater than two years. The MSIVs in steamline "A" were last leak tested on July 13, 1985. Therefore, by postponing the leak tests until July 12, 1987, CEI will still be within the testing frequency interval required in 10 CFR 50, Appendix J.

The proposed change does not create a new or different kind of accident from any accident previously evaluated. CEI is proposing to postpone leak testing of the two MSIVs in steamline "A" from May 31, 1987, to July 12, 1987, and that by no later than July 12, 1987, CEI will perform all required testing on the MSIVs in accordance with the Commission's regulations. In addition, the change does not result in any modification to the plant design or systems operation.

The proposed change does not involve a significant reduction in a margin of safety. As is stated above, the two MSIVs in steamline "A" were leak tested on July 13, 1985, and the results of those tests were found to be well within the acceptance criteria established for each MSIV. CEI was issued a low power operating license (No. NPF-45) for Unit 1 on March 18, 1986, and commenced nuclear heatup in August 1986. As such, the MSIVs in question have

only seen approximately nine months of service; and the MSIVs would only have been in service for one year since last being tested, with approval of the test interval extension proposed.

Accordingly, the amendment does not involve significant hazards considerations.

3.2 STATE CONSULTATION

The staff consulted with the State of Ohio by telephone on May 20, 1987. There were no comments on this amendment.

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 and changes to the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types of any effluents 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. 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 nor 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, and (2) such activities will be conducted in compliance with the Commission's regulations and 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 Contributors:

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Dated: May 29, 1987