

May 28, 1992

Docket No. 50-440

Mr. Michael D. Lyster, Vice President
Nuclear - Perry
The Cleveland Electric Illuminating
Company
10 Center Road
Perry, Ohio 44081

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Dear Mr. Lyster:

SUBJECT: AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. NPF-58
(TAC NO. M67130)

The Commission has issued the enclosed Amendment No. 43 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1. This amendment revises the Technical Specifications (TSs) in response to your application dated February 8, 1988, as supplemented March 14, 1990 (CEI letter No. PY-CEI/NRR-1146 L, erroneously dated March 14, 1989).

This amendment revises TS Table 3.3.2-2, by changing the Residual Heat Removal/Reactor Core Isolation Cooling Steam Line Flow-High Trip Setpoint and Allowable Value and deleting a footnote referring to setpoint adjustments found during the Startup Test Program.

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

James R. Hall, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

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P PDR

Enclosures:

1. Amendment No. 43 to License No. NPF-58
2. Safety Evaluation

cc w/enclosures:
See next page

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

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Sincerely,

A handwritten signature in cursive script that reads "James R. Hall".

James R. Hall, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 43 to
License No. NPF-58
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Michael D. Lyster
Cleveland Electric Illuminating Company

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Perry Nuclear Power Plant
Unit Nos. 1 and 2

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Division of Power Generation
Ohio Department of Industrial
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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
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North Perry Village, Ohio 44081

Attorney General
Department of Attorney General
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Columbus, Ohio 43216

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Ohio Department of Health
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Columbus, Ohio 43212

Ohio Environmental Protection
Agency
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Mr. Phillip S. Haskell, Chairman
Perry Township Board of Trustees
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Perry, Ohio 44081

State of Ohio
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Company
Post Office Box 97, SB306
Perry, Ohio 44081



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

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. 43
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 February 8, 1988, as supplemented March 14, 1990 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.

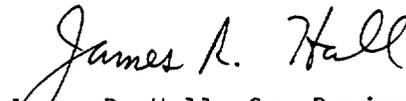
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 43 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.

FOR THE NUCLEAR REGULATORY COMMISSION



James R. Hall, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: May 28, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 43

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. Overleaf pages are provided to maintain document completeness.

Remove

3/4 3-17
3/4 3-18
3/4 3-19
3/4 3-20

Insert

3/4 3-17
3/4 3-18
3/4 3-19
3/4 3-20

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<u>1. PRIMARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level - Low, Level 2	≥ 129.8 inches*	≥ 127.6 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c. Containment and Drywell Purge Exhaust Plenum Radiation - High	≤ 2 mR/hr above background	≤ 4 mR/hr above background
d. Reactor Vessel Water Level - Low, Level 1	≥ 16.5 inches*	≥ 14.3 inches
e. Manual Initiation	NA	NA
<u>2. MAIN STEAM LINE ISOLATION</u>		
a. Reactor Vessel Water Level - Low, Level 1	≥ 16.5 inches*	≥ 14.3 inches
b. Main Steam Line Radiation - High	≤ 3.0 x full power background	≤ 3.6 x full power background
c. Main Steam Line Pressure - Low	≥ 807.0 psig	≥ 795.0 psig
d. Main Steam Line Flow - High	≤ 183 psid	≤ 191 psid
e. Condenser Vacuum - Low	≥ 8.5 inches Hg. vacuum	≥ 7.6 inches Hg. vacuum
f. Main Steam Line Tunnel Temperature - High	$\leq 154.4^\circ\text{F}$	$\leq 158.9^\circ\text{F}$
g. Main Steam Line Tunnel Δ Temperature - High	$\leq 103.6^\circ\text{F}$	$\leq 107.4^\circ\text{F}$
h. Turbine Building Main Steam Line Temperature - High	$\leq 134.4^\circ\text{F}$	$\leq 138.9^\circ\text{F}$
i. Manual Initiation	NA	NA

PERRY - UNIT 1

3/4 3-17

Amendment No. 7, 43

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
3. <u>SECONDARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level - Low, Level 2	≥ 129.8 inches*	≥ 127.6 inches
b. Drywell Pressure - High	< 1.68 psig	< 1.88 psig
c. Manual Initiation	NA	NA
4. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u>		
a. Δ Flow - High	≤ 68 gpm	≤ 77.1 gpm
b. Δ Flow Timer	≤ 45 seconds	≤ 47 seconds
c. Equipment Area Temperature - High		
1. RWCU Hx Room	$\leq 136.4^\circ\text{F}$	$\leq 138.9^\circ\text{F}$
2. Pump Rooms, Valve Nest Room	$\leq 135.4^\circ\text{F}$	$\leq 137.9^\circ\text{F}$
d. Equipment Area Δ Temperature - High		
1. RWCU Hx Room	$\leq 76.65^\circ\text{F}$	$\leq 78.4^\circ\text{F}$
2. RWCU Pump Rooms, Valve Nest Room	$\leq 28.65^\circ\text{F}$	$\leq 30.4^\circ\text{F}$
e. Reactor Vessel Water Level - Low, Level 2	≥ 129.8 inches*	≥ 127.6 inches
f. Main Steam Line Tunnel Ambient Temperature - High	$\leq 154.4^\circ\text{F}$	$\leq 158.9^\circ\text{F}$
g. Main Steam Line Tunnel Δ Temperature - High	$\leq 103.6^\circ\text{F}$	$\leq 107.4^\circ\text{F}$
h. SLCS Initiation	NA	NA
i. Manual Initiation	NA	NA

PERRY - UNIT 1

3/4 3-18

Amendment No. 7, 43

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
5. <u>REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u>		
a. RCIC Steam Line Flow - High	$\leq 290'' \text{ H}_2\text{O}$	$\leq 298.5'' \text{ H}_2\text{O}$
b. RCIC Steam Supply Pressure - Low	$\geq 60 \text{ psig}$	$\geq 55 \text{ psig}$
c. RCIC Turbine Exhaust Diaphragm Pressure - High	$\leq 10 \text{ psig}$	$\leq 20 \text{ psig}$
d. RCIC Equipment Room Ambient Temperature - High	$\leq 143.4^\circ\text{F}$	$\leq 145.9^\circ\text{F}$
e. RCIC Equipment Room Δ Temperature - High	$\leq 95.9^\circ\text{F}$	$\leq 97.2^\circ\text{F}$
f. Main Steam Line Tunnel Ambient Temperature - High	$\leq 154.4^\circ\text{F}$	$\leq 158.9^\circ\text{F}$
g. Main Steam Line Tunnel Δ Temperature - High	$\leq 103.6^\circ\text{F}$	$\leq 107.4^\circ\text{F}$
h. Main Steam Line Tunnel Temperature Timer	$\leq 29 \text{ minutes}$	$\leq 30 \text{ minutes}$
i. RHR Equipment Room Ambient Temperature - High	$\leq 157.4^\circ\text{F}$	$\leq 159.9^\circ\text{F}$
j. RHR Equipment Room Δ Temperature - High	$\leq 50.65^\circ\text{F}$	$\leq 52.4^\circ\text{F}$
k. RCIC Steam Flow High Timer	$3 \text{ seconds} \leq t \leq 13 \text{ seconds}$	$3 \text{ seconds} \leq t \leq 13 \text{ seconds}$
l. Drywell Pressure - High	$\leq 1.68 \text{ psig}$	$\leq 1.88 \text{ psig}$
m. Manual Initiation	NA	NA

PERRY - UNIT 1

3/4 3-19

Amendment No. 7, 26, 28, 43

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
6. <u>RHR SYSTEM ISOLATION</u>		
a. RHR Equipment Area Ambient Temperature - High	≤ 157.4°F	≤ 159.9°F
b. RHR Equipment Area Δ Temperature - High	≤ 50.65°F	≤ 52.4°F
c. RHR/RCIC Steam Line Flow - High	≤ 52.1" H ₂ O	≤ 55.6" H ₂ O
d. Reactor Vessel Water Level - Low Level 3	≥ 177.7 inches*	≥ 177.1 inches
e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	≤ 135 psig	≤ 150 psig
f. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
g. Manual Initiation	NA	NA

*See Bases Figure B 3/4 3-1.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 43 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 letter dated February 8, 1988, as supplemented March 14, 1990, the Cleveland Electric Illuminating Company, et al. (the licensee) requested a revision to Technical Specification (TS) Table 3.3.2-2 by changing one Isolation Actuation Instrumentation Trip Setpoint and Allowable Value based on startup test results, and deleting a footnote throughout Table 3.3.2-2 which referred to setpoint adjustments found during the Startup Test Program for Perry Unit 1.

TS Table 3.3.2-2 was written recognizing that the initial trip setpoints and allowable values were best approximations based on the design of the plant. Ten were verified to be acceptable during startup testing and no changes are required. For one trip function, Residual Heat Removal/Reactor Core Isolation Cooling (RHR/RCIC) Steam Line Flow-High, the licensee determined that changes to the Trip Setpoint and Allowable Value were necessary.

2.0 EVALUATION

The Trip Setpoint and Allowable Value are being changed based on the Startup Test Program results of normal RHR and RCIC steam condensing steam flow rather than being based solely on calculations. The design basis accident assumption used for establishing the Trip Setpoint and Allowable Value has not changed, i.e. 125% total maximum RHR and RCIC Steam Condensing steam flow.

The purpose of this instrumentation is to initiate the isolation of the RHR/RCIC steamline in the event of a steamline break. The proposed changes are as follows:

	Existing Value	Proposed Value
Trip Setpoint	$\leq 105''\text{H}_2\text{O}$	$\leq 52.1''\text{H}_2\text{O}$
Allowable Value	$\leq 114''\text{H}_2\text{O}$	$\leq 55.6''\text{H}_2\text{O}$

These new values are more conservative than the existing values, and the results of the Startup Test Program demonstrate that the proposed setpoints will appropriately indicate an abnormal high steam flow condition without causing inadvertent trips during normal steam flow conditions.

In the course of its review, the staff identified the need for additional information relating to the basis for the proposed values. The licensee responded to this request by letter dated March 14, 1990 (CEI Letter No. PY-CEI/NRR-1146 L). The attachments to that letter provide discussions of the calculations for the RHR/RCIC Steam Line Flow-High Trip Setpoint and Allowable Value, and the method used to detect RHR/RCIC flow. Some of that information is based on a proprietary report submitted to NRC by the General Electric Company (GE), "General Electric Instrument Setpoint Methodology," NEDC-31336, dated October 1986. By letter dated March 18, 1992, GE submitted an affidavit for GE Report NEDC-31336 and requested that it continue to be withheld from public disclosure. By letter to GE, dated April 13, 1992, the NRC has determined that GE Report NEDC-31336 will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of the Atomic Energy Act of 1954, as amended.

Staff review of this report has not been completed at this time and, as a result, any findings resulting from our review of this report may need to be factored into the Perry setpoint methodology in the future.

The staff has reviewed the proposed changes to TS Table 3.3.2-2, the RHR/RCIC Steam Line Flow-High Trip Setpoint and Allowable Value, and finds them to be acceptable. This change also proposes to delete a footnote from the eleven isolation actuation instrument trip functions, since the footnote is no longer applicable. This is an administrative change and the staff finds this deletion to be 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 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). This amendment also involves changes in record-keeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR §51.22(c)(10). 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. Lombardo

Date: May 28, 1992