

November 23, 1998

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Mr. Lew W. Myers  
 Vice President - Nuclear, Perry  
 Centerior Service Company  
 P.O. Box 97, A200  
 Perry, OH 44081

SUBJECT: AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. NPF-58 -  
 PERRY NUCLEAR POWER PLANT, UNIT 1 (TAC NO. MA3536)

Dear Mr. Myers:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 94 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit 1. This amendment revises the Technical Specifications in response to your application dated September 3, 1998 (PY-CEI/NRR-2298L).

This amendment revises Technical Specification 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air," by increasing the Division 3 Diesel Generator fuel oil level requirements to account for (1) a rounding error in the calculation, and (2) the unusable volume due to vortex formation at the eductor suction nozzle located in the fuel oil storage tank.

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:

Douglas V. Pickett, Senior Project Manager  
 Project Directorate III-2  
 Division of Reactor Projects III/IV  
 Office of Nuclear Reactor Regulation

//  
 DG1

Docket No. 50-440

- Enclosures: 1. Amendment No. 94 to License No. NPF-58  
 2. Safety Evaluation

DOCUMENT NAME: G:\PERRY\MA3536.AMD

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OFFICE	PM: PDIII-2	E	LA: PDIII-2	E	SL: SPLB	OGC	D: PDIII-2	C
NAME	DPickett		EBarnhill		GHubbard*		SRichards	
DATE	10/29/98		10/29/98		10/21/98	11/3/98	11/16/98	

\*See GHubbard to SRichards memo dated 10/21/98

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 PDR ADOCK 05000440  
 PDR

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Sincerely,

Original signed by:

Douglas V. Pickett, Senior Project Manager  
 Project Directorate III-2  
 Division of Reactor Projects III/IV  
 Office of Nuclear Reactor Regulation

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DATE	10/29/98		10/29/98		10/21/98		11/13/98		11/16/98	

\*See GHubbard to SRichards memo dated 10/21/98

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

November 23, 1998

Mr. Lew W. Myers  
Vice President - Nuclear, Perry  
Centerior Service Company  
P.O. Box 97, A200  
Perry, OH 44081

SUBJECT: AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. NPF-58 -  
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Sincerely,

A handwritten signature in cursive script that reads "Douglas V. Pickett".

Douglas V. Pickett, Senior Project Manager  
Project Directorate III-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosures: 1. Amendment No. 94 to  
License No. NPF-58  
2. Safety Evaluation

cc w/encls: See next page

L. Myers  
Centerior Service Company

Perry Nuclear Power Plant, Units 1 and 2

cc:

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Perry Township Board of Trustees  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 94  
License No. NPF-58

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Cleveland Electric Illuminating Company (CEICO), Centerior Service Company, Duquesne Light Company, Ohio Edison Company, OES Nuclear, Inc., Pennsylvania Power Company, and Toledo Edison Company (the licensees) dated September 3, 1998, 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:

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P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 94 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



Douglas V. Pickett, Senior Project Manager  
Project Directorate III-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: November 23, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 94

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

Insert

3.8-21

3.8-21

3.8-23

3.8-23

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

LCO 3.8.3 The stored diesel fuel oil, lube oil, and starting air subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each DG.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more DGs with fuel oil level:</p> <ol style="list-style-type: none"> <li>1. For Div 1 and Div 2, &lt; 73,700 gal and ≥ 65,100 gal; and</li> <li>2. For Div 3, &lt; 36,700 gal and ≥ 32,000 gal.</li> </ol>	<p>A.1 Restore fuel oil level to within limits.</p>	<p>48 hours</p>
<p>B. One or more DGs with lube oil inventory:</p> <ol style="list-style-type: none"> <li>1. For Div 1 and Div 2, &lt; 374 gal and ≥ 350 gal; and</li> <li>2. For Div 3, &lt; 260 gal and ≥ 236 gal.</li> </ol>	<p>B.1 Restore lube oil inventory to within limits.</p>	<p>48 hours</p>





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. NPF-58

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

PERRY NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-440

1.0 INTRODUCTION

During an NRC inspection conducted from February 23 through March 5, 1998, at the Perry Nuclear Power Plant (PNPP), a discrepancy was identified between the licensee's calculation and the plant technical specification (TS) limit for the Division 3 emergency diesel generator (EDG) 7-day fuel oil supply requirement. The discrepancy involved a rounding error in the calculation. The calculated fuel oil requirement of 36,140 gallons for 7 days of Division 3 EDG operation had been non-conservatively rounded down to 36,100 gallons which was used as the TS limit for the 7-day fuel oil supply requirement. During the resolution of the discrepancy, the licensee discovered that, in the fuel oil requirement calculation, the potential of vortex formation above the eductor suction nozzle located near the bottom of the fuel oil storage tank was not examined.

By letter dated September 3, 1998, the licensee submitted a request to amend the PNPP TS. The proposed TS changes revise the Division 3 EDG 7-day fuel oil supply requirement from 36,100 gallons to 36,700 gallons and the 6-day fuel oil supply requirement from 31,500 gallons to 32,000 gallons to reflect the additional fuel oil needed to prevent vortex formation above the eductor suction nozzle and eliminate the rounding error.

2.0 EVALUATION

The division 3 EDG<sup>1</sup> is provided with a fuel oil storage tank having a capacity of 39,375 gallons. At the current TS limit, vortex formation could occur above the eductor nozzle after 6 days and 21.5 hours of continuous EDG operation at the rated capacity. To overcome the effects of vortex formation, an additional depth of fuel oil in the storage tank is required to be maintained. The licensee re-performed the fuel oil requirement analysis based on the EDG operating continuously for 7 days at the rated capacity. The licensee determined that the 7-day fuel oil

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<sup>1</sup> The licensee stated that similar concerns were investigated on the Division 1 and Division 2 EDGs. The Division 1 and Division 2 EDG TS limits have sufficient margins to prevent vortex formation above the eductor suction nozzles.

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requirement should be 36,700 gallons instead of the current TS requirement of 36,100 gallons. The 6-day fuel oil requirement should be 32,000 gallons instead of the current TS requirement of 31,500 gallons. In addition, any rounding error similar to that discovered in the previous calculation was eliminated in the revised calculation.

Based on its review, the staff concludes that the licensee's revised calculation and TS limit for the Division 3 EDG fuel oil requirement will ensure that vortex formation does not occur during 7 days of Division 3 EDG continuous operation following a loss-of-coolant accident (LOCA). Thus, the Division 3 EDG will have a reliable EDG fuel oil storage and transfer system and adequate fuel oil supply for 7 days of continuous operation following a LOCA. The proposed changes are consistent with the guidance described in NUREG-1434, Revision 1, "Improved Standard Technical Specifications for General Electric BWR/6 Plants," and Standard Review Plan Section 9.5.4 regarding EDG fuel oil storage and transfer systems. Therefore, the staff finds the above proposed TS changes 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 changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes 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 (63 FR 53960). 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: David Shum, NRR

Date: November 23, 1998