



**CENTERION  
ENERGY**

**PERRY NUCLEAR POWER PLANT**

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SENIOR VICE PRESIDENT  
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April 28, 1995  
PY-CEI/NRR-1927L

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Perry Nuclear Power Plant  
Docket No. 50-440  
License Amendment Request:  
Operating License NPF-58, License Condition 2.C.(9) and Attachment 2

Gentlemen:

Enclosed is an application for amendment of the Facility Operating License (NPF-58) for the Perry Nuclear Power Plant. This License Amendment application proposes the removal of license conditions for the Transamerica Delaval, Inc. (TDI) Emergency Diesel Generators (EDG) specified by paragraph 2.C.(9) and defined in Attachment 2 to the Operating License. This request is based on the recommendations and NRC conclusions in Topical Report TDI-EDG-001-A, "Basis for Modification to Inspection Requirements for Transamerica Delaval, Inc., Emergency Diesel Generators".

A Summary, Description of Proposed Changes, Safety Analysis, and an Environmental Consideration are provided in Attachment 1. Attachment 2 provides a copy of the marked up Operating License pages. Attachment 3 provides the Significant Hazards Consideration. Issuance of the Amendment is requested by October 1, 1995, to support planning efforts for RF05.

If you have questions or require additional information, please contact Mr. James D. Kloosterman, Manager - Regulatory Affairs at (216) 280-5833.

Very truly yours,

*for* *Richard Schrauder*

Donald C. Shelton

TAH:sc

Enclosure

Attachments

cc: NRC Project Manager  
NRC Resident Inspector Office

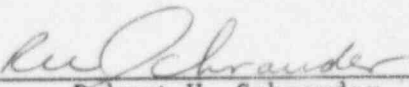
NRC Region III  
State of Ohio

Operating Companies  
Cleveland Electric Illuminating  
Toledo Edison

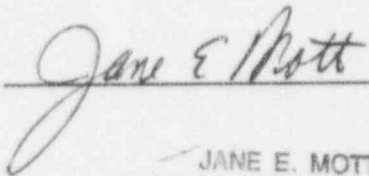
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ADD 1

I, Robert W. Schrauder, being duly sworn state that (1) I am Director, Perry Nuclear Services Department of the Cleveland Electric Illuminating Company, (2) I am duly authorized to execute and file this certification on behalf of The Cleveland Electric Illuminating Company and Toledo Edison Company, and as the duly authorized agent for Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company, and (3) the statements set forth herein are true and correct to the best of my knowledge, information and belief.

  
Robert W. Schrauder

Sworn to and subscribed before me, the 28<sup>th</sup> day of April,  
1995.

  
JANE E. MOTT  
Notary Public, State of Ohio  
My Commission Expires Feb. 20, 2000  
(Recorded in Lake County)

## SUMMARY

Currently, the Perry Nuclear Power Plant (PNPP) Operating License (NPP-58) contains conditions regarding special Emergency Diesel Generator (EDG) inspection requirements as specified by item 2.C.(9), "TDI Diesel Generator Reliability (Section 9.6.3, SSER #6, 8 & 10)", and Attachment 2, "Transamerica Delaval, Inc. (TDI) Diesel Engine Requirements". These requirements are stipulated as part of the Design Review/Quality Revalidation (DR/QR) program for Transamerica Delaval, Inc. (TDI) EDGs, as endorsed by NUREG-1216, "Safety Evaluation Report Related to the Operability of Emergency Diesel Generators Manufactured by Transamerica Delaval, Inc." A change is proposed to delete these conditions from the operating license, such that the total program for maintaining EDG reliability will be controlled by the licensee under the provisions of 10 CFR 50.59.

## DESCRIPTION OF PROPOSED CHANGES

This requested change will delete both item 2.C.(9) and Attachment 2 of the Operating License in their entirety. The basis for this proposed change is the TDI Owners Group submittal, "Generic Topical Report TDI-EDG-001-A, Basis for Modification to Inspection Requirements for Transamerica Delaval, Inc., Emergency Diesel Generators" (Topical Report) and the generic NRC safety evaluation report "Safety Evaluation, Inspection Requirements for Transamerica Delaval Inc. Diesel Generators" dated March 17, 1994 (published as NUREG-1416, Operational Experience and Maintenance Programs of Transamerica Delaval, Inc. Diesel Generators, in May 1994). These documents conclude that there is adequate justification for removing the license requirements associated with NUREG-1216 from utilities' licenses. These documents, along with their assumptions and analyses, have been reviewed and found to be applicable to the PNPP TDI diesel generators.

The DR/QR program has provided substantial operational data and inspection results to demonstrate the suitability of the TDI engines for nuclear service. Therefore it is appropriate that TDI EDGs be treated in the same manner as other EDGs within the nuclear industry without the special requirements in operating licenses. Removal of the prescriptive teardown and inspection requirements from licenses will allow flexibility in determining the best way to monitor engine conditions while maintaining reliability and reducing EDG unavailability.

Current Technical Specification surveillance requirements will continue to demonstrate satisfactory performance in accordance with NRC requirements. The PNPP program to monitor and maintain the TDI diesel engines will be developed using the principles of the TDI Owners' Group endorsed Cooper-Enterprise Preventive Maintenance Plan (PMP), and shall be subject to the provisions of 10 CFR 50.59. This will provide the foundation for transition to the performance-based requirements of the Maintenance Rule.

### SAFETY ANALYSIS

The TDI Owners Group, of which PNPP is a member, was formed in late 1983 following the crankshaft failure of a TDI EDG at the Shoreham Nuclear Plant. The Owners Group developed the detailed program to provide for generic design review and quality revalidation of TDI EDGs for nuclear service. This DR/QR program was reviewed by the NRC and endorsed in NUREG-1216. Portions of the DR/QR were incorporated into the PNPP Operating License as item 2.C.(9) and Attachment 2.

The DR/QR program imposed intrusive inspection requirements on the TDI owner utilities based on the limited operating history of the engines. The intent was to ensure reliable operation by routine inspection of critical components and allow for development of an equipment history file. The recent Topical Report described above documented substantial operational history without significant failure. The additional inspections required by the license conditions have not revealed any significant problems from operation of the engines. NRC sponsored research (NUREG/CR-5057, "Aging Mitigation and Improved Programs for Nuclear Service Diesel Generators, Pacific Northwest Laboratory, December 1989) also indicates that during shakedown periods subsequent to teardown, engine unreliability may increase due to the possibility of intrusive inspections introducing foreign material and "fit wear-in" or break-in periods for new components.

The TDI engines at PNPP have been inspected in accordance with the DR/QR requirements, including one 5-year inspection on each engine. These inspections have noted no appreciable component degradation. For the three year period ending with fourth quarter 1994, PNPP TDI EDGs have experienced no failures and during the same period attained an unavailability ratio better than the INPO industry goal. However, the teardowns specified by the DR/QR require a significant amount of time to perform, often as an outage critical path activity, during which time the EDG is unavailable to supply emergency power. This can result in outage scheduling concerns and an adverse impact on shutdown risk.

The primary purpose of the EDGs is to provide a reliable source of AC power to the emergency buses upon a loss of offsite power. It has been shown that the maintenance activities can affect the reliability and availability of EDGs. The requirement to perform a complete overhaul every ten years adds to the unavailability and also could contribute to increased unreliability. As indicated in the Generic SER, the NRC concurs with the Owners' Group that by combining predictive maintenance, surveillance, and inspections as in the Owners' Group preventive maintenance plan, considerable flexibility in the frequency of performing engine teardowns can be achieved without sacrificing engine reliability. Increasing the availability and reliability of EDGs would have no adverse effect on safety.

Based on the inspection results and operational performance of the PNPP engines, it is appropriate that PNPP have the ability to address its maintenance program as necessary to incorporate enhancements that will maintain reliability and improve availability while minimizing associated shutdown risk, including major overhaul frequency.

#### ENVIRONMENTAL CONSIDERATION

This proposed Operating License amendment has been reviewed against the criteria of 10 CFR 51.22 for environmental considerations. As shown above and in Attachment 3, the proposed change does not involve a significant hazards consideration, does not increase the types and amounts of effluents that may be released offsite, and does not significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, it has been concluded that the proposed Operating License amendment meets the criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement.