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Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

January 27, 1981

Mr. James G. Keppler
Director, Region III
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Re: Perry Nuclear Power Plant
Interim Report: DeLaval Standby
Diesel Generator Model DSRV16

Dear Mr. Keppler:

This letter serves as an interim report as required by 10CFR50.55(e) on a significant deficiency reported by Mr. William Kacer of The Cleveland Electric Illuminating Company (CEI) on December 30, 1980, in a telephone conversation with Mr. Ross Landsman of the Nuclear Regulatory Commission Region III, Office of Inspection and Enforcement. The deficiency concerns the standby diesel generators, Model DSRV16 supplied by Transamerican DeLaval, Incorporated. DeLaval notified the NRC of this reportable deficiency under 10CFR Part 21 on December 16, 1980. CEI was first notified by DeLaval of the problem in a letter dated December 22, 1980.

Description of the Deficiency

DeLaval is supplying four (4) diesel generator units (Model DSRV16) for the Perry Nuclear Power Plant (PNPP) that will be used as a standby power source for the PNPP. The turbochargers for the generators were manufactured by the Elliot Company of Jeannette, Pennsylvania. They were installed on the engines by Transamerican DeLaval and lubricated in accordance with Elliot Company recommendations.

The reported defect exists in the lubricating oil system that supplies oil to the turbocharger bearings. The design of the system permits lubricating oil to flow to the bearings only when the engine is running and prevents oil flow to the bearings when the engine is in the standby mode. The oil seal of the turbocharger is a labyrinth type and is only effective when the turbocharger is running. Because of the possibility of seal leakage when the turbocharger is not running (engine standby mode), the turbocharger lubricating oil system is bypassed at this time. The turbocharger thrust bearings may experience rapid wear because of this lubricating system which may result in engine non-availability.

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Currently, the diesel generators are set in place at PNPP with pre-engine start testing tentatively scheduled for October 1981.

Analysis of the Safety Implications

Excessive thrust bearing wear, due to inadequate lubrication, could affect engine availability and thus affect the availability of standby A.C. power supply. Design Criterion 17 of Appendix A to 10CFR50 and Section 8.3.1.1.4 of the PNPP P.S.A.R. require an available standby A.C. power supply to provide for safe shut down of the reactor and to maintain the plant in a safe condition.

Corrective Action

The turbocharger lube oil system will be modified so that the turbocharger thrust bearings receive adequate oil during pre-lubing. This modification will also insure that the turbocharger is not overlubed.

DeLaval is now involved in the design, testing and evaluation of a modification to the turbocharger lube oil system. As soon as this process is completed by DeLaval and a modification is approved, DeLaval proposes to provide all the details concerning this modification, including drawings, parts and parts lists, procedures, and technical services. At the time of this writing it could not be confirmed by DeLaval as to when this information would be made available. Upon receipt of this information and completion of an inspection to determine the extent of turbocharger thrust bearing wear, a final report will be prepared and submitted in accordance with requirements of 10CFR50.55(e).

The final report will be issued prior to pre-engine start testing, tentatively scheduled for October 1981.

Very truly yours,

Dalwyn R. Davidson
Vice President
System Engineering and Construction

DRD:bas

cc: Mr. Jack Hughes, NRC Resident Inspector
Perry Nuclear Power Plant Site

Director of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

U. S. Nuclear Regulatory Commission
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