

*Southern California Edison Company*

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June 8, 1981

J. G. HAYNES  
MANAGER OF NUCLEAR OPERATIONS

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(213) 972-1742

U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region V  
1990 North California Boulevard  
Suite 202, Walnut Creek Plaza  
Walnut Creek, California 94596



Attention: Mr. R. H. Engelken, Director

DOCKET No. 50-206  
SAN ONOFRE - UNIT 1

- References: (1) Letter dated December 23, 1980 from SCE (J. G. Haynes) to NRC (R. H. Engelken)
- (2) Letter dated January 21, 1981 from SCE (J. G. Haynes) to NRC (R. H. Engelken)

Dear Sir:

Reference 1 transmitted LER 80-039 while Reference 2 transmitted Revision 1 to that same LER. These submittals reported the discovery of worn turbocharger thrust bearings on all four No. 1 Diesel Generator turbochargers. Reference 1 indicated that a report would be submitted upon the completion of our investigation into the cause of this condition. Accordingly, this correspondence is written to advise you of the results of our investigation and to discuss our proposed corrective action. Also attached is Revision 2 to LER 80-039.

Based on examination and review of the turbocharger oil supply system by both the diesel manufacturer and Southern California Edison it is concluded that a design deficiency in the lubricating oil system that supplies oil to the turbocharger bearings resulted in the worn condition. Specifically, there is an insufficient supply of oil during pre-lubing in the standby mode resulting in a lack of lubricating oil during the first few seconds of diesel generator startup. The current design of the diesel permits lubricating oil 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. This is because the turbocharger oil seal is a labyrinth type seal and is only effective when the turbocharger is running. Due to the possibility of seal leakage when the turbocharger is at rest (engine standby mode) the turbocharger lube oil system is by-passed during this mode.

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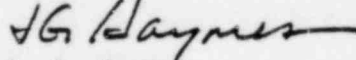
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In order to correct this problem the diesel generator supplier has proposed a system modification allowing pre-lubing of the turbocharger thrust bearings. Southern California Edison is now procuring the parts, technical services and documentation necessary to effect the design change. It is anticipated that this modification will be completed no later than January 1, 1982.

The turbocharger thrust bearings on both the No. 1 and No. 2 Diesel Generators have been replaced. Operating experience has shown that the turbochargers will remain functional for several years with the current design. To further mitigate any additional unnecessary wear on the bearings, we have modified operating procedures to require manual prelubing of the turbocharger bearings prior to testing until such time as the modifications are made. Consequently, based upon the foregoing we have determined that there will be no adverse effect upon public health and safety by operating with the current design until the modification can be procured and installed.

Should you have any questions on the above, please contact me.

Sincerely,



J. G. Haynes  
Manager of Nuclear Operations

GPM:dh:63U

Attachment: Licensee Event Report 80-039 Rev. 2

cc: L. F. Miller (NRC Resident Inspector - San Onofre Unit 1)  
U.S. Nuclear Regulatory Commission  
Nuclear Reactor Regulation  
Nuclear Safety Analysis Center