

*Southern California Edison Company*



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M.O. MEDFORD  
MANAGER, NUCLEAR LICENSING

October 10, 1984

TELEPHONE  
(213) 572-1749

Director, Office of Nuclear Reactor Regulation  
Attention: W. A. Paulson, Acting Chief  
Operating Reactors Branch No. 5  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206  
Diesel Generator Stress Analyses Reports  
San Onofre Nuclear Generating Station  
Unit 1

Reference: Letter, M. O. Medford (SCE) to W. A. Paulson (NRC), dated  
August 28, 1984, Return to Service Requirements Regarding  
Transamerica Delaval Emergency Diesel Generators

By the referenced letter, we informed you that the results of stress  
analyses performed by Failure Analysis Associates (FaAA) relative to five  
major components of the San Onofre Unit 1 diesel generators will be forwarded  
to you upon availability and completion of review.

The enclosed letter dated September 6, 1984, from the TDI Diesel  
Generator Owners Group contains a summary of the results and is transmitted to  
you to fulfill the above commitment.

If you have any questions, please call me.

Very truly yours,

*R. J. Phelps*  
for M.O. Medford

ENCLOSURE

cc: USNRC Document Control Desk, Washington, D.C. 20555  
A. E. Chaffee (USNRC Resident Inspector Units 1, 2 and 3)  
C. L. Ray (TDI Diesel Generator Owners Group)

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# DUKE POWER COMPANY

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422 SOUTH CHURCH STREET

CHARLOTTE, N. C. 28242

September 6, 1984

OGTP-256-0-136

David F. Pilmer  
Southern California Edison  
2244 Walnut Grove Avenue  
Room 320  
Rosemead, CA 91770

RECEIVED

Re: San Onofre - Unit 1  
Analysis for Reduced Load Rating  
File: MTS-4086

SEP 11 1984

D. F. PILMER

Dear Mr. Pilmer:

All Phase I reports issued by the TDI Owners Group to date have been based on assuring the adequacy of the engines at their full rated load capability which would correspond to a load rating of 8800 KW for the DSRV20-4 engine. Analyses have been performed on five components to quantify the reduction in stresses the San Onofre DSRV20-4 engines experience as a result of their 6000 KW load rating versus the 8800 KW load rating the engine is capable of. The results are as follows:

<u>Component</u>	<u>% Reduction in Stress Range (Steady State)</u>
. Crankshaft	12.4% (See note)
. Connecting Rods	6.0%
. Rod Bearings	16.4%
. Pistons	24.9%
. Cylinder Blocks	9.1%

Note: The crankshaft analysis was based on a load of 7000 KW in lieu of 6000 KW due to availability of firing pressure data, therefore the % reduction shown is conservative.

As expected, the stresses are not directly proportional to load but the reductions in stress due to the relatively low load rating provide additional margin.

*C. L. Ray, Jr.*

C. L. Ray, Jr.  
Technical Program Director  
TDI Diesel Generator Owners Group

CLR/cr

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