

Southern California Edison Company



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M. O. MEDFORD
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April 22, 1985

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

Gentlemen:

Subject: Docket No. 50-206
Transamerica Delaval Inc. (TDI) Diesel Engine
Torsiographic Test Report/Evaluation of Transient Conditions
San Onofre Nuclear Generating Station
Unit 1

Reference: Letter M. O. Medford (SCE) to J. A. Zwolinski (NRC),
dated December 19, 1984, TDI Diesel Engine Reliability
and Operability

By the referenced letter, Southern California Edison (SCE) informed you that the TDI diesel generator owners group sponsored torsigraphic test report for diesel generator #1 of the San Onofre Nuclear Generating Station Unit 1 was being prepared and would be transmitted to the NRC after SCE had received and reviewed it.

The enclosed report by Failure Analysis Associates of Palo Alto, California, entitled "Evaluation of Transient Conditions on Emergency Diesel Generator Crankshafts at San Onofre Nuclear Generating Station Unit 1," dated April 1985, fulfills the above commitment. This report summarizes the results of inspections, testing and analyses performed on emergency diesel generators #1 and #2 at San Onofre Unit 1. Using a conservative crack growth model, the report concludes that it is safe to operate the engines with cracks up to 18 mils deep. It should also be pointed out that the test loads on the engines are now limited to 4500 kW \pm 5%, whereas the crack propagation analysis presented in the report assumes operation at full load of 6000 kW. Southern California Edison considers the recommendations which are derived from the theoretical predictions made in this report to be highly conservative.

If you have any questions, please call me.

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S PDR

Very truly yours,

M. O. Medford

Enclosure

cc: USNRC Document Control Desk (Washington, D.C. 20555)
F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)
(w/o enclosures)
D. E. Broeils (TDI D/G Owners Group)
J. Nesbitt (PNL)

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