



COOPER ENERGY SERVICES

AJAX COOPER-BESSEMER PENN PUMP SUPERIOR

May 20, 1983

Our Ref: QCG-332

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

Attention: Director of Inspection and Enforcement

Gentlemen:

In accordance with 10CFR Part 21, this letter is notification of a deficiency that has been determined to exist in six emergency standby diesel generator sets manufactured and supplied by Cooper Energy Services and delivered to Arizona Public Service Company's Palo Verde Nuclear Generating Station.

Due to environmental conditions at the point of installation which were not considered in the original design calculations, it has been determined that the lube oil and jacket water standby temperature of 120°F at which the units have been qualified cannot be maintained. The building in which the generator sets are installed is an open type and allows air to flow past the units. This coupled with the 40°F minimum ambient, indicated by the design specifications but not taken into account, means that the 12 KW heater originally installed in the lube oil system and the 18 KW heater in the jacket water system are not of sufficient size to maintain the 120°F standby temperature. As a result, the starting time of the diesel generator sets could be increased slightly.

The corrective action being taken by Cooper Energy Services is to replace the 18 KW jacket water heater with a 40 KW version, and to replace the 12 KW lube oil heater with a 19 KW version supplemented by a 4 KW submersion heater in the engine oil sump. These larger heaters, which will permit the 120°F standby temperature to be maintained, have been ordered, and will be shipped to the site on or before July 1, 1983 for the first two generator sets, and on or before August 1, 1983 for the remaining four generator sets.

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U.S. Nuclear Regulatory Commission
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Cooper Energy Services is currently conducting an evaluation of the conditions at the other locations to which diesel standby generator sets have been supplied. If this evaluation shows that a similar condition exists at another facility, then CES will notify you immediately upon detection.

Sincerely,



F. B. Stolba
Vice President and General Manager,
Reciprocating Products

cc: W. G. Bingham, Project Engineer
P.O. Box 60860
Terminal Annex
Los Angeles, CA 90060

W. J. Stubblefield, Manager
Field Construction
Palo Verde Nuclear Generating Station
P. O. Box 49
Palo Verde, AZ 85343

W.H.A. Lambert
R. A. Miklos
File/K-5f



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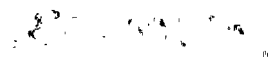
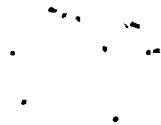
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1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know if the study was successful in achieving its goals and if the data collected is reliable and valid.

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HEADQUARTERS DAILY REPORT
JUNE 9, 1983

RD
AMK

DIVISION OF EMERGENCY PREPAREDNESS AND ENGINEERING RESPONSE

1. PART 21 REPORT - BY LETTER DATED MAY 20, 1983 TO DIRECTOR, IE, COOPER ENERGY SERVICES INFORMED THE NRC OF A DEFICIENCY WHICH EXISTS IN SIX EMERGENCY STANDBY DIESELS DELIVERED TO THE PALO VERDE NUCLEAR GENERATING STATION. DUE TO ENVIRONMENTAL CONDITIONS AT THE POINT OF INSTALLATION WHICH WERE NOT CONSIDERED IN THE ORIGINAL DESIGN CALCULATIONS, THE 12 KW HEATER INSTALLED IN THE LUBE OIL SYSTEM AND THE 18 KW HEATER IN THE JACKET WATER SYSTEM ARE NOT OF SUFFICIENT SIZE TO MAINTAIN THE REQUIRED 120 DEGREE F STANDBY TEMPERATURE. COOPER IS REPLACING THESE HEATERS WITH LARGER MODELS AND IS CURRENTLY CONDUCTING AN EVALUATION OF ENVIRONMENTAL CONDITIONS AT THE OTHER LOCATIONS TO WHICH DIESEL GENERATOR SETS HAVE BEEN SUPPLIED TO DETERMINE IF A SIMILAR PROBLEM EXISTS ELSEWHERE.

