



## COOPER ENERGY SERVICES

AJAX COOPER-BESSEMER PENN PUMP SUPERIOR

November 23, 1981

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

ATTN: 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 two emergency standby diesel generator sets manufactured and supplied by Cooper Energy Services. One of these sets has been installed in Pennsylvania Power & Light Company's Susquehanna Steam Electric Station at Berwick, Pa. The other unit was installed at Arizona Public Service Company's Palo Verde Nuclear Generating Station in Arizona.

The defect exists in one power head on each of the two units involved. The 13/16" drilled hole where the fuel nozzle tip emerges through the head was drilled oversize during the process of manufacturing. This hole was repaired by Dalic copper plating the hole to size. It was discovered after performance of a 300 start test of the unit at the Susquehanna Steam Electric Station, that this plating can fail due to the large difference between the coefficients of expansion between the copper plating and the parent metal, and the large temperature fluctuations that occur in this part of the head.

A failure in this area of the head could cause the fuel injection nozzle to be blown out of the cylinder head and the potential of a top side engine fire could result.

The head that failed in the Susquehanna Steam Electric Station unit has already been removed and is being replaced with a new head.



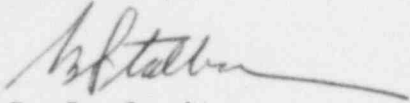
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The unit at the Palo Verde Nuclear Station is not yet operational, but the head will be replaced prior to startup. These are the only two heads in units already shipped to the installation site which have had this repair.

Sincerely,



F. B. Stoloa  
Vice President & General Manager, Reciprocating Products

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