16-064-000 (X) ARS

COOPER-BESSEMER COMPANY

RECEIVED
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NQA SECTION

November 3, 1978

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 found 9-13-78 within a KSV Power Engine supplied and manufactured by Cooper Energy Services. This engine is part of the emergency standby diesel-generator set supplied for installation at (4) four licensees' stations.

The extent of the deficiency is as follows: Each power cylinder has (1) inlet and (1) exhaust push rod assembly and (2) valve crosshead assemblies Part No. Z25-1-2#10. This sub-assembly contains; a crosshead Part No. JS-25-1G, a roller pin Part No. JS-25-1P, and a pin collar Part No. JS-25-1M. During a recent performance test on this engine, it was found that some sub-assemblies showed abnormal wear on the surface of the roller pin. No engine shutdown nor mal-function has been experienced, but it is felt that over a longer period of engine operation this abnormal wear could progress far enough to cause the engine to mal-function.

The corrective action taken by C.E.S. is to redesign to increase the diameter of the roller pin (JS-25-1P) to provide an interference fit at assembly between the roller pin and the crosshead (JS-25-1G) and reduce the clearance between the roller pin and the collar (JS-25-1M). In addition the hand flaring operation to seat the pin ends into chamfer on the crosshead has been replaced by a more consistent and positive press operation. The sub-assemblies in field units named below are to be inspected and replaced if required. The time span for the execution of the change out by C.E.S. on field units will be dependent upon availability of units for rework but will be done as soon as is practicable.

The following engines which have had field running at the licensees sites are to be inspected by C.E.S. to determine if cam rollers have become sluggish and incipient cam scuffing is occurring. Cam or cam roller scuffing can be an indication of a worn roller pin or collar.

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Nebraska Public Power, Cooper Station, SN's 7102 & 7103.

Commonwealth Edison, Zion 1 & 2, SN-7090, 7091, 7092, 7093 & 7094.

The following engines at the licensees' sites which have not had field running are to have the inlet and exhaust valve cross-head assemblies replaced with those of the new design.

Pennsylvania Power & Light, Susquehanna 1 & 2, SN's 7157, 7158, 7159 and 7160

Louisiana Power & Light, Waterford 3, SN's 7170 & 7171

B. B. Bender
Vice President & General Manager
CB Reciprocating Products

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cc: Nebraska Public Power, Cooper Station
Commonwealth Edison, Zion 1 and 2
Pennsylvania Power and Light, Susquehanna 1 and 2
Lousiana Power and Light, Waterford 3