

Iowa Electric Light and Power Company

April 20, 1993
NG-93-1652

Mr. A. Bert Davis
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License DPR-49
Special Report #93-01

Gentlemen:

In accordance with Table 9.5-1 of the Duane Arnold Energy Center's Updated Final Safety Analysis Report, the following special report is being submitted describing loss of our diesel-driven fire pump for greater than 7 days.

On March 19, 1993 the diesel-driven fire pump, 1P-49, started during testing and broke the studs attaching a ring gear to the pump gear hub on the right angle drive. The right angle drive transmits the torque from the diesel engine to the pump. When the right angle drive was disassembled, the pump shaft rotated freely when moved by hand, indicating that the pump had not seized. The failure is attributed to normal wear during starting and running which allowed clearances to open. This resulted in increased wear. A preventative maintenance program will be implemented to periodically inspect the bolts.

The hub was remachined, the studs were replaced, and the drive was reassembled. Following the replacement of a plugged pressure regulating valve for the engine lube oil cooling water which was unrelated to the failure, the pump successfully passed its post maintenance test on March 29. During the time the diesel fire pump was out of service, the electric-driven fire pump, 1P-48, was run daily as a compensatory measure.

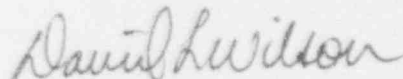
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A review of maintenance history did not reveal any similar occurrences during the diesel fire pump's 20 years of service. In addition, a search of industry operating experience did not reveal other bolting failures on this model pump. This event is being treated as an isolated occurrences and no additional corrective actions are planned.

Very truly yours,



David L. Wilson
Plant Superintendent - Nuclear

DLW/LLS/eah

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