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Docket No. 50-346

License No. NPF-3

Serial No. 1-86

September 7, 1979

United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, D.C. 20535

Attention: Director, Division of Reactor
Construction Inspection

Dear Sir:

IE Bulletin No. 79-15, dated July 11, 1979, requested all holders of reactor operating licenses and construction permits to compile information regarding the reliability of their deep draft vertical pumps utilized in safety related applications. Attached is our response to Bulletin 79-15 for Davis-Besse Nuclear Power Station Unit 1.

Yours very truly,

A handwritten signature in cursive script, appearing to read 'R. Crouse'.

Richard P. Crouse
Vice President, Energy Supply

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cc: Mr James G. Keppler
Regional Director, Region III
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

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DEEP DRAFT PUMP DEFICIENCIES
UTILIZED IN SAFETY RELATED SYSTEMS

RESPONSE TO NRC IE BULLETIN NO. 79-15

DAVIS-BESSE NUCLEAR POWER STATION UNIT 1

NRC IE Bulletin 79-15, dated July 11, 1979 and revision 1 dated July 18, 1979 required all holders of reactor operating licenses and construction permits provide information regarding deep draft pumps utilized in safety related systems. This information is provided as follows.

Item 1:

The number of deep draft pumps similar to those shown in Figures 1 and 2 utilized in safety related applications in each facility.

Response:

Three (3) pumps similar to those shown in Figure 1 are utilized in a safety related application at the Davis-Besse Nuclear Power Station Unit 1. The pumps were purchased under a Quality Assurance Program and are also Seismic Class I qualified.

Item 2:

Manufacturer, model, capacity and plant application.

Response:

Goulds Pumps, Vertical Pump Division Model VITX-SD 20 x 28 BHC - 2 stage 10,250 GPM @ 160 ft. head. Service water.

Item 3:

Overall dimensions of pump.

Response:

Overall length is 40 ft. - 7 in.

- 11 ft. - 6 in. from top of motor to the mounting plate

- 29 ft. - 1 in. from mounting plate to the suction bell.

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Item 4:

Summary of startup, testing and routine maintenance history.

Response:

Davis-Besse has experienced no failures or deficiencies of the service water pumps during startup testing or any test following. There have been, however, minor problems experienced with the motors. During initial startup of pump No. 1, oil was observed leaking out of the motor louvers. This problem was due to an incomplete seam weld on the motor oil reservoir housing.

Item 5:

Operational problems and major repair efforts.

Response:

Again, there have been no operational problems or major repair efforts on the pumps themselves. However, there have been operational changes made to the motors. These changes were a result of all three (3) motors bearing temperatures running continuously higher than the manufacturer's recommended bearing temperature.

Item 6:

The longest interval that each pump has been available for operation without corrective maintenance. Identify the number of cycles of operation during this interval, the duration of each cycle and the operating mode(s) (recirculation, rated flow, etc.). Identify the longest continuous operation at or near rated flow conditions for each pump and the status of the pump operability at the end of the run.

Response:

Davis-Besse does not compile individual component availability records for these pumps. However, since these pumps have had minor maintenance performed on the motors only, and with no corrective maintenance on the pumps themselves, the overall availability of the pumps is excellent. These pumps are tested every 31 days as part of our surveillance test program for the service water system. To this date there have been no deficiencies of the pumps to meet the acceptance criteria of the test.

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