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Docket No. 50-346

License No. NPF-3

Serial No. 1-622

February 28, 1986

Mr. James G. Keppler, Regional Administrator
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Keppler:

The enclosed report is submitted in response to IE Bulletin 85-01: Steam Binding of Auxiliary Feedwater Pumps (Log No. 1-1268). Toledo Edison has reviewed IE Bulletin 85-01 and evaluated the potential for steam binding of the auxiliary feedwater (AFW) pumps at the Davis-Besse Nuclear Power Station Unit No. 1. The enclosed report describes Toledo Edison's plans for monitoring fluid temperature conditions of the AFW pumps' discharge on a regular basis when the pumps are required to be operable. In addition, the report describes the procedural method for restoring a steam bound AFW pump.

Toledo Edison has also evaluated the potential for steam binding of the recently installed motor-driven feedwater pump (MDFP). Procedures are under development addressing monitoring of appropriate fluid temperature conditions of the MDFFP discharge and the restoration of the MDFFP should it become steam bound. The applicability of IE Bulletin 85-01 concerns to the MDFFP has been identified by the NRC office of Nuclear Reactor Regulation (NRR) as an unresolved issue requiring resolution before restart authorization. Accordingly, Toledo Edison will submit a report describing the methods used to address these concerns to NRR by March 14, 1986.

As you are aware, Davis-Besse is currently in a shutdown condition. As discussed with Mr. I. N. Jackiw of your staff on February 25, 1986,

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Serial No. 1-622
February 28, 1986
Page 2

approval of the procedure, associated training and procedure implementation will be completed by Toledo Edison prior to placing the plant in Mode 3 from the current shutdown.

Very truly yours,

Joe Williams Jr / JWW

JW:DRW:plf
Attachment

cc: DB-1 NRC Resident Inspector

ATOMIC ENERGY ACT OF 1954
SECTION 182a
SUBMITTAL IN RESPONSE
FOR THE
DAVIS-BESSE NUCLEAR POWER STATION
UNIT NO. 1
FACILITY OPERATING LICENSE NO. NPF-3

This letter and enclosure is submitted in conformance with Atomic Energy Act of 1954, Section 182a, in response to IE Bulletin 85-01 (Log No. 1-1268). This response addresses steam binding of auxiliary feedwater pumps at the Davis-Besse Nuclear Power Station Unit No. 1.

By Terry D. Murray
Terry D. Murray
Assistant Vice President, Nuclear

For J. Williams, Jr.
Senior Vice President, Nuclear

Sworn to and subscribed before me this 28th day of February, 1986.

Lamine Adickle, Notary Public
Notary Public, State of Ohio
My Commission Expires May 16, 1986

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION
UNIT NO. 1

RESPONSE
TO
IE BULLETIN 85-01
STEAM BINDING
OF
AUXILIARY FEEDWATER PUMPS

RESPONSE TO

STEAM BINDING OF AUXILIARY FEEDWATER PUMPS

On October 29, 1985, the Nuclear Regulatory Commission Office of Inspection and Enforcement issued IE Bulletin 85-01: Steam Binding of Auxiliary Feedwater Pumps. Toledo Edison has reviewed IE Bulletin 85-01 and evaluated the potential for steam binding of the Davis-Besse auxiliary feedwater (AFW) pumps. The following briefly describes the AFW system and the procedure under development which will be implemented to address AFW pump steam binding.

AUXILIARY FEEDWATER SYSTEM DESCRIPTION

The Davis-Besse AFW system consists of two safety-grade steam turbine-driven AFW pumps capable of being actuated and controlled by safety-grade signals. The pumps are capable of taking suction from the condensate storage tanks or the Class 1 service water system. The design of the AFW pump suction and discharge lines to the steam generators, AFW pump turbine steam inlet lines, and associated power supplies ensure the AFW system is redundant and independent.

PROCEDURES

Toledo Edison is proceduralizing the monitoring of AFW pump discharge fluid conditions on a regular basis during Modes 1 through 3 (when the system is required to be operational). System Procedure SP 1106.06, Revision 24, Auxiliary Feedwater System Procedure, will address AFW pump steam binding.

Under SP 1106.06 an Equipment Operator will monitor, by touching, the AFW pump discharge piping temperature to ensure that the piping fluid is at about ambient temperature. IE Bulletin 85-01 recognizes that elaborate monitoring instrumentation is not necessary and that monitoring the fluid temperature by touching the pipe is acceptable. As an alternative method of monitoring, the Reactor Operator may determine the acceptable temperature of the AFW pump piping discharge header via plant computer points. Under either of these methods, completion of the monitoring will be recorded.

When the plant is in Modes 1 through 3, monitoring will be performed on a frequency of at least twice a day at approximately twelve hour intervals. Should a high (hot) temperature be identified, the Equipment Operator or Reactor Operator will notify the Shift Supervisor. Should an AFW pump be identified as steam bound, SP 1106.06, will require that the normally open AFW pump discharge valve, AF599 or AF608, be closed to allow the steam to be vented from both the pump casing and discharge piping. This will also allow the pump casing and discharge piping to be filled with cool water. If an AFW pump has been steam bound, the frequency of monitoring will be increased as specified in SP1106.06 until corrective action has been implemented.

IMPLEMENTATION SCHEDULE

SP 1106.06, Revision 24, proceduralizing the above steps will be approved and implemented, and training completed, prior to placing the plant in Mode 3 from the current shutdown.