From: Lawrence Burkhart
To: Douglas Pickett; John Stang; Stephen Sands; Toni Harris } NRR
Date: 11/16/01 1:10PM
Subject: COVER LETTERS FOR ORDERS

Attached are the cover letters which we will issue to the licensee, if necessary, with the Orders attached. Please start your review and provide comments/suggestions. The earliest we could issue the orders is Monday, 11/26/01.

CC: Allen Hiser; Andrea Lee; Anthony Mendiola; Bill Bateman; Jack Strosnider; Keith Wichman; William Reckley

D-52

Mr. Guy G. Campbell, Vice President - Nuclear
FirstEnergy Nuclear Operating Company
5501 North State, Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - ISSUANCE OF ORDER RE: RESPONSES TO BULLETIN 2001-01, "CIRCUMFERENTIAL CRACKING OF REACTOR PRESSURE VESSEL HEAD PENETRATION NOZZLES," (TAC NO. MB2626)

Dear Mr. Campbell:

The Nuclear Regulatory Commission (NRC) staff issued Bulletin 2001-01, Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," on August 3, 2001, to address the generic safety implications of pressure boundary leakage recently observed at several facilities due to circumferential cracking of vessel head penetration (VHP) nozzles resulting from primary water stress corrosion cracking. In the Bulletin, the NRC staff recommended timely performance of a qualified visual examination of 100 percent of the VHP nozzles for those plants that have already identified existence of primary water stress corrosion cracking of VHP nozzles. To assess the prevalence and severity of VHP nozzle cracking and determine plant-specific compliance with NRC regulations, the NRC staff requested that addressees submit information regarding the scope, timing, and results of completed inspections and the scope and schedule of future inspections of their VHP nozzles. The Bulletin requested that licensees not planning to perform inspections prior to December 31, 2001, provide a technical basis for their planned inspection schedules. At the time of issuance of the Bulletin, the staff considered that performance of the recommended inspections by December 31, 2001, was a timely action given the very limited knowledge, experience, and observations regarding this cracking phenomenon and the associated safety implications. December 31, 2001, was chosen based on the need to acquire additional information in a timely manner and to allow licensees time to plan and perform the recommended inspections, and to make needed repairs.

Since issuance of the Bulletin, the importance of performing the recommended inspections by this date to support continued operation has been reinforced by the identification of VHP nozzle cracking, including circumferential cracking, at several facilities. While the results of these inspections have not revealed conditions of incipient failure, the inspections have identified conditions supporting the need to perform inspections in the near term to verify the absence of conditions worse than those found to date. In light of these results, the staff believes that operation of facilities, that are considered to be highly susceptible to this cracking phenomenon or that have already experienced VHP nozzle cracking, beyond December 31, 2001, is unacceptable unless the recommended inspections to identify this potentially hazardous condition are completed and found acceptable by the NRC staff.

You provided your response to the Bulletin by letters dated September 4, October 17, October 30, and November 1, 2001. These letters documented the "high susceptibility" ranking of Davis-Besse Nuclear Power Station, Unit No. 1., and described your basis for deferral of performance of the VHP inspections until you shutdown for the next refueling outage on March 31, 2001.

Based on the information provided in your responses, you have not, at any time, performed a qualified visual examination of 100 percent of the VHP nozzles at Donald C. Cook Nuclear Plant, Unit 2. In addition, the plant is ranked as having a high susceptibility to cracking in the VHP nozzles. Due to this high susceptibility and the extent of cracking found in other plants, it is reasonable to expect that Davis-Besse Nuclear Power Station, Unit No. 1, could have significant cracking, which would violate the reactor coolant pressure boundary and result in a loss-of-coolant accident. You have not provided an adequate basis to operate beyond December 31, 2001, without performing inspections to verify the integrity of the reactor coolant pressure boundary. Consequently, I find that a potentially hazardous condition exists and warrants the issuance of the attached Order that modifies the operating license for Davis-Besse Nuclear Power Station, Unit No. 1, to require (1) that the facility be shut down by December 31, 2001, and proceed to the cold shutdown or lower mode, and (2) the performance of inspections to demonstrate to the NRC staff that there is reasonable assurance that the VHP nozzles are free of significant defects prior to subsequent plant operation. I further find that the assurance of public health and safety requires that this Order be effective immediately.

Sincerely,

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: Order Modifying License No. NPF-3

cc w/encls: See next page

performance of the VHP inspections until you shutdown for the next refueling outage on March 31, 2001.

Based on the information provided in your responses, you have not, at any time, performed a qualified visual examination of 100 percent of the VHP nozzles at Donald C. Cook Nuclear Plant, Unit 2. In addition, the plant is ranked as having a high susceptibility to cracking in the VHP nozzles. Due to this high susceptibility and the extent of cracking found in other plants, it is reasonable to expect that Davis-Besse Nuclear Power Station, Unit No. 1, could have significant cracking, which would violate the reactor coolant pressure boundary and result in a loss-of-coolant accident. You have not provided an adequate basis to operate beyond December 31, 2001, without performing inspections to verify the integrity of the reactor coolant pressure boundary. Consequently, I find that a potentially hazardous condition exists and warrants the issuance of the attached Order that modifies the operating license for Davis-Besse Nuclear Power Station, Unit No. 1, to require (1) that the facility be shut down by December 31, 2001, and proceed to the cold shutdown or lower mode, and (2) the performance of inspections to demonstrate to the NRC staff that there is reasonable assurance that the VHP nozzles are free of significant defects prior to subsequent plant operation. I further find that the assurance of public health and safety requires that this Order be effective immediately.

Sincerely,

Stephen P. Sands, Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: Order Modifying License No. NPF-3

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*See Previous Concurrence Sheet
ADAMS ACCESSION NUMBER: ML013

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OFFICIAL RECORD COPY

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Davis-Besse Nuclear Power Station, Unit 1

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