

September 8, 2006

Mark B. Bezilla
Vice President
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Davis-Besse Nuclear Power Station
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SUBJECT: BULLETIN 2004-01, "INSPECTIONS OF ALLOY 82/182/600 MATERIALS USED IN THE FABRICATION OF PRESSURIZER PENETRATIONS AND STEAM SPACE PIPING CONNECTIONS AT PRESSURIZED-WATER REACTORS," RESPONSE FOR DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 (TAC NO. MC3475)

Dear Mr. Bezilla:

On May 28, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, "Inspections of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," to the industry. This bulletin informed addressees that current methods of inspecting the pressurizer penetrations and steam space piping connections fabricated from Alloy 82/182/600 materials may need to be supplemented with additional measures (e.g., bare-metal visual inspections) to detect pressurizer penetration and steam space piping connection flaws or leakage. The bulletin requested that addressees provide the NRC with information related to the materials of construction, the inspections that have been performed, and the inspections which will be performed to verify the integrity of the pressurizer penetrations and steam space piping connections.

The following requested information documented in Bulletin 2004-01, item (1), pertaining to your plant was required within 60 days of the May 28, 2004, date of the bulletin:

- (a) a description of the pressurizer penetrations and steam space piping connections,
- (b) a description of the inspection program for Alloy 82/182/600 pressurizer penetrations and steam space piping connections that has been implemented,
- (c) a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented during the next and subsequent refueling outages, and

- (d) in light of the information discussed in the bulletin and your understanding of the relevance of recent industry operating experience to your facility, an explanation why the inspection program identified in your response to item (1)(c) above is adequate for the purpose of maintaining the integrity of your facility's reactor coolant pressure boundary (RCPB) and for meeting all applicable regulatory requirements.

Furthermore, documented in Bulletin 2004-01, item (2), was a request that within 60 days of plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections, you should either:

- (a) submit to the NRC a statement indicating that the inspections described in your response to item (1)(c) of this bulletin were completed and a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup non-destructive examination (NDE) performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found

or

- (b) if you were unable to complete the inspections described in response to item (1)(c) of this bulletin, submit to the NRC a summary of the inspections performed, the extent of the inspections, the methods used, a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found. In addition, supplement the answer which you provided to item (1)(d) above to explain why the inspections that you completed were adequate for the purpose of maintaining the integrity of your facility's RCPB and for meeting all applicable regulatory requirements which pertain to your facility.

By letter dated July 26, 2004, as supplemented by letter dated August 22, 2005, you provided your responses to items (1)(a), (1)(b), (1)(c), and (1)(d) of Bulletin 2004-01 for Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse). Your responses described its materials of fabrication and past, current and future pressurizer penetrations and steam space piping inspection programs at Davis-Besse.

Your response to item (1)(a) reported that some of the materials used in the fabrication of the pressurizer penetrations and steam space piping connections were Alloy 82/182/600 materials. This reply required you to provide further responses to the remaining items in the bulletin.

In response to item (1)(b), you described prior inspections and inspection results of pressurizer penetrations and steam space piping connections which had been performed at Davis-Besse. Your response included the basis for concluding that Davis-Besse satisfies the applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space

piping connections.

In response to item (1)(c), you provided a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at your plant during the next and subsequent refueling outages. The description included the items to be inspected; the percent coverage that would be performed at each location; the inspection methods to be used; the qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection documentation to be generated; and the basis for concluding that your plant will satisfy the applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections are found, you indicated that follow-up NDE will be performed to characterize flaws in the leaking penetrations. You provided plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

In response to item (1)(d), you explained why the inspection program identified in your response to item (1)(c) is adequate for the purpose of maintaining the integrity of the Davis-Besse RCPB and for meeting all applicable regulatory requirements.

By letter dated August 22, 2005, you provided a response to item (2)(a) in Bulletin 2004-01. This letter provided a statement to the NRC indicating that the inspections described in your response to item (1)(c) were completed during the Davis-Besse Cycle 14 Mid-cycle outage and a description of the as-found condition of the locations inspected was provided. You also described any findings of relevant indications of through-wall leakage and follow-up NDE performed to characterize flaws in leaking penetrations or steam space piping connections. A summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and a description of any corrective actions taken and/or repairs made as a result of the indications found was also provided in this letter.

The NRC staff has completed its activities associated with the review of your responses to Bulletin 2004-01 and finds your response to be acceptable. It should be noted that industry commitments or NRC staff regulatory actions may result in the need for you to modify your plans for the inspection and repair of items discussed in Bulletin 2004-01. It is the NRC staff's expectation that you will revise your plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or NRC staff regulatory actions.

M. Bezilla

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This closes the NRC staff's efforts with regard to the review of the Bulletin 2004-01 response for Davis-Besse. Please contact me at (301) 415-1486 if you have any questions on this issue.

Sincerely,

/RA/

Stephen J. Campbell, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

cc: See next page

M. Bezilla

- 4 -

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