

June 27, 2006

Mr. Christopher M. Crane  
President and Chief Executive Officer  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

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 THREE MILE ISLAND NUCLEAR STATION, UNIT 1 (TAC NO. MC3519)

Dear Mr. Crane:

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 that will be performed to verify the integrity of the pressurizer penetrations and steam space piping connections.

By letter dated July 27, 2004, and by a supplemental letter dated August 16, 2005, AmerGen Energy Company, LLC (AmerGen) provided its responses to items 1a, 1b, 1c, and 1d of Bulletin 2004-01 for Three Mile Island Nuclear Station, Unit 1 (TMI). AmerGen's responses described its materials of fabrication and past, current, and future pressurizer penetrations and steam space piping inspection programs at TMI.

AmerGen's response to item 1a 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 the licensee to provide further responses to the remaining items in the bulletin.

In response to item 1b, AmerGen described prior inspections and inspection results of pressurizer penetrations and steam space piping connections which had been performed at TMI. AmerGen's response included the basis for concluding that TMI satisfies the applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections.

In response to item 1c in the bulletin, AmerGen provided a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at TMI 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, AmerGen indicated that a follow-up nondestructive examination (NDE) will be performed to characterize flaws in the leaking penetrations. AmerGen provided its plans for expansion of the scope of the 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 1d in the bulletin, AmerGen explained why the inspection program identified in the response to item 1c in the bulletin is adequate for the purpose of maintaining the integrity of the TMI reactor coolant pressure boundary and for meeting all applicable regulatory requirements which pertain to TMI.

By letter dated January 17, 2006, AmerGen provided a response to item 2a in Bulletin 2004-01. This letter provided a statement to the NRC indicating that the inspections described in the AmerGen response to item 1c of the bulletin were completed during a recent TMI outage and a description of the as-found condition of the locations inspected was provided. AmerGen 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 AmerGen's responses to Bulletin 2004-01 and finds AmerGen's response to be acceptable. It should be noted that industry commitments or staff regulatory actions may result in the need for AmerGen to modify its plans for the inspection and repair of items discussed in Bulletin 2004-01. It is the NRC staff's expectation that AmerGen will revise its plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or staff regulatory actions.

C. Crane

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This closes the NRC staff's efforts with regard to the review of the Bulletin 2004-01 response for TMI. Please contact me at (301) 415-1447 if you have any questions on this issue.

Sincerely,

**/RA/**

Farideh E. Saba, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-289

cc: See next page

C. Crane

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Sincerely,

**/RA/**

Farideh E. Saba, Project Manager  
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Docket No. 50-289

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