

10 CFR 50.54(f)

5928-06-20372
January 17, 2006

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Three Mile Island Nuclear Station, Unit No. 1
Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject: Sixty-Day Response to NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," and Clarification to the Response to Request for Additional Information

- References:
- 1) NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," dated May 28, 2004
 - 2) Letter from K. Jury (Exelon Generation Company, LLC and AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated July 27, 2004
 - 3) Letter from P. B. Cowan (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated August 16, 2005

In the Reference 1 letter, the NRC issued NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized Water Reactors." Requested Information Section 2(a) of this bulletin requires the following information be submitted to the NRC within sixty (60) days after plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections:

"...a statement indicating that the inspections described in the licensee's 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 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."

Pursuant to 10 CFR 50.54, "Conditions of licenses," paragraph (f), Attachment 1 to this letter provides the Three Mile Island (TMI), Unit 1 Sixty-Day response. This response is due to the NRC by January 17, 2006.

In the Reference 3 letter, AmerGen Energy Company, LLC, provided our response to an NRC Staff question as discussed in a conference call dated July 7, 2005. Attachment 2 provides a clarification to that Reference 3 letter.

Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.


There are no commitments contained in this letter.

I declare under penalty of perjury that the foregoing is true and correct.

Respectfully,

9074

1/17/06
Executed on



Pamela B. Cowan
Director – Licensing and Regulatory Affairs
AmerGen Energy Company, LLC

Attachments: 1) Sixty-Day Response to NRC Bulletin 2004-01
2) Clarification to August 16, 2005, Response to Request for Additional Information

cc: S. J. Collins, USNRC, Administrator, Region I
D. M. Kern, USNRC, Senior Resident Inspector, TMI-1
F. E. Saba, USNRC, Project Manager
File No. 05051

ATTACHMENT 1

Sixty-Day Response to NRC Bulletin 2004-01

Request:

On May 28, 2004, the NRC issued NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Connections at Pressurized-Water Reactors." This bulletin requires the following information be submitted to the NRC within sixty (60) days after plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections:

"...a statement indicating that the inspections described in the licensee's 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 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."

Response:

Summary of the Inspections Performed, Extent of the Inspections, and Methods Used

During the Fall 2005 refueling outage (T1R16), a bare metal visual (BMV) examination was performed on all fifteen (15) of the pressurizer steam space and water space penetrations applicable to NRC Bulletin 2004-01, and adjacent pressurizer shell surfaces surrounding the connections. One (1) pressurizer heater bundle penetration was mitigated in 2003 (T1R15) and is not included in this bulletin response. The examination was conducted in accordance with Exelon corporate procedures ER-AA-335-015, "VT-2 Visual Examination", ER-AP-331-1001, "Boric Acid Corrosion Control (BACC) Inspection Locations, Implementation and Inspection Guidelines," ER-AP-331-1002, "Boric Acid Corrosion Control Program Identification, Screening, and Evaluation", and ER-AP-331-1004, "Boric Acid Corrosion Control (BACC) Training and Qualification".

The examination was a direct visual examination in accordance with VT-2 requirements ensuring any boric acid leakage would be easily identified.

All fifteen (15) penetrations were examined 360 degrees around. The examination was performed by certified VT-2 examiners.

Description of the As-Found Condition, Findings of Relevant Indications, and Summary of the Disposition of any Findings

The examination of the fifteen (15) penetrations and adjacent pressurizer vessel surfaces identified no evidence of any boric acid deposits associated with reactor coolant leakage. These findings of no leakage being present support a conclusion that the pressurizer penetrations addressed in Bulletin 2004-01 continue to perform acceptably.

Corrective Actions Taken

Based on the acceptable as found condition of the fifteen (15) penetrations and adjacent pressurizer vessel surfaces there was no followup NDE, disposition of findings, or corrective actions required.

ATTACHMENT 2

Clarification to August 16, 2005 Response to Request for Additional Information

Clarification to the Response to Request for Additional Information

- References:
- 1) NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," dated May 28, 2004
 - 2) Letter from K. Jury (Exelon Generation Company, LLC and AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated July 27, 2004
 - 3) Letter from P. B. Cowan (AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, dated August 16, 2005

In the Reference 3 letter, AmerGen Energy Company, LLC, provided our response to an NRC Staff question as discussed in a conference call dated July 7, 2005. In that response, Three Mile Island (TMI), Unit 1 discussed an extensive mitigation strategy for Alloy 82/182/600 pressurizer welds. This strategy included the mitigation of seven (7) welds during the Fall 2005 refueling outage (T1R16), which concluded on November 18, 2005. These welds included:

1. Three (3) 2½-inch pressure relief nozzles;
2. Three (3) 1-inch level sensing nozzles (in upper elevation steam space);
3. The 1-inch vent nozzle.

Preparation for the mitigation of these Alloy 82/182/600 welds began during the outage; however, as a result of unforeseen scheduling issues, only the 1-inch vent nozzle was mitigated. This weld is considered to be a highly susceptible crack location. There is no specific schedule for mitigating the six (6) welds (i.e., the three (3) 2½-inch pressure relief nozzles, and the three (3) 1-inch level sensing nozzles (in upper elevation steam space)) at this time. As discussed in Attachment 1, a bare metal visual examination of the fifteen (15) Alloy 82/182/600 penetrations was performed with no identified leakage.

At this time, there is no safety concern with the remaining Alloy 82/182/600 pressurizer welds that would warrant immediate mitigation.