

10 CFR 50.55a

5928-07-20045
February 20, 2007

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

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

Subject: Request for Relief to Utilize Code Case N-659, "Use of Ultrasonic Examination in Lieu of Radiography for Weld Examination Section III, Division 1"

Reference: 1) Letter from P. B. Cowan (AmerGen Energy Company, LLC) to U.S. Nuclear Regulatory Commission, dated September 28, 2006
2) Letter from F. E. Saba (U.S. Nuclear Regulatory Commission) to C. M. Crane (AmerGen Energy Company, LLC), dated January 22, 2007

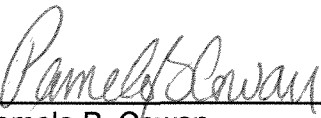
In the Reference 1 letter, pursuant to 10 CFR 50.55a(a)(3)(ii), AmerGen Energy Company, LLC (AmerGen) proposed an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section III, "Rules for Construction of Nuclear Power Plant Components," on the basis that compliance with the specified requirements of this code results in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Specifically, AmerGen proposes an alternate nondestructive examination method based on Code Case N-659 ("Use of Ultrasonic Examination in Lieu of Radiography for Weld Examination Section III, Division 1," September 17, 2002) for the replacement of seven (7) Alloy 82/182 welds and associated Alloy 600 safe ends on the Three Mile Island, Unit 1 pressurizer.

In the Reference 2 letter, the U.S. Nuclear Regulatory Commission requested additional information. Attached is our response.

There are two (2) commitments contained in this letter as discussed in Attachment 2.

If you have any questions, please contact Mr. Thomas R. Loomis (610-765-5510).

Respectfully,

gaf 

Pamela B. Cowan
Director - Licensing & Regulatory Affairs
AmerGen Energy Company, LLC

Attachments: 1) Relief Request No. 2006-TMI-01 – Response to Request for Additional
Information
2) Summary of Commitments

cc: S. J. Collins, Regional Administrator, Region I, USNRC
D. M. Kern, USNRC, Senior Resident Inspector, TMI
V. Nerses, USNRC, Senior Project Manager
File No. 05056

ATTACHMENT 1

Relief Request No. 2006-TMI-01

Response to Request for Additional Information

Question 1:

"By letter dated September 28, 2006, AmerGen Energy Company requested to use American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Case N-659, "Use of Ultrasonic Examination in Lieu of Radiography for Weld Examination Section III, Division 1." The Nuclear Regulatory Commission (NRC) has reviewed the ASME Code Case N-659 for endorsement as conditionally acceptable in draft Regulatory Guide DG-1134, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." Proposed conditions were provided in the Federal Register of October 27, 2006 (Volume 71, Number 208), Pages 62948-62949. In order for the NRC staff to continue its review, please discuss how the proposed NRC conditions will be addressed for Three Mile Island, Unit 1."

Response 1:

AmerGen Energy Company, LLC (AmerGen) is currently continuing qualification work and evaluation to identify our ability to comply with the conditions included in the Federal Register Notice (71 FR 62947, dated October 27, 2006) for Code Case N-659. These conditions may not be practical to implement. An additional response concerning the progress of the examination qualification, proposed extent of compliance with the Federal Register Notice conditions, and identified alternatives (if necessary) to the Federal Register Notice conditions will be provided by June 30, 2007.

Question 2:

"ASME Code Case N-659 states that the examination area shall include 100% of the volume of the entire weld, plus 0.5T of each side of the welds, where T is the thickness of the weld. After reviewing figures 2 and 3 of your submittal, the NRC staff is unclear as to what is the exact weld area that will not be examined. Please provide the following:

- a) Please discuss the computer modeling, if any, used to determine the appropriate transducer size and angles for maximum volume coverage. Evaluate if using different shapes can increase the coverage.
- b) Please discuss other non-destructive methods (such as, surface examination and/or eddy current) that were considered for improving the volume coverage and can get some depth as well. Explain whether and how the volume coverage can be improved."

Response 2:

AmerGen will develop examination coverage plots, as necessary, following procedure qualification work. Additionally, AmerGen will consider the use of other non-destructive examination methods for improving examination coverage. An additional response concerning the status of coverage plots and the use of supplemental non-destructive examination methods, for improving coverage, will be provided by June 30, 2007.

ATTACHMENT 2
SUMMARY OF COMMITMENTS

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

| COMMITMENT | COMMITTED DATE OR "OUTAGE" | COMMITMENT TYPE | |
|--|----------------------------------|--------------------------------|--------------------------|
| | | ONE-TIME ACTION (Yes/No) | Programmatic (Yes/No) |
| Response 1: An additional response concerning the progress of the examination qualification, proposed extent of compliance with the Federal Register Notice conditions, and identified alternatives (if necessary) to the Federal Register Notice conditions will be provided by June 30, 2007. | June 30, 2007 | Yes | No |
| Response 2: An additional response concerning the status of coverage plots and the use of supplemental non-destructive examination methods, for improving coverage, will be provided by June 30, 2007. | June 30, 2007 | Yes | No |