



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 13, 2011

Mr. John T. Carlin
Vice President R.E. Ginna Nuclear Power Plant
R.E. Ginna Nuclear Power Plant, LLC
1503 Lake Road
Ontario, NY 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - REQUEST FOR ADDITIONAL
INFORMATION RE: FOURTH INTERVAL INSERVICE INSPECTION
PROGRAM RELIEF REQUESTS NOS. ISI-02 AND ISI-03 (TAC NOS. ME5248
AND ME5249)

Dear Mr. Carlin:

By letter dated December 16, 2010, and pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.55a(g)(5)(iii), R.E. Ginna Nuclear Power Plant, LLC submitted Relief Requests Nos. ISI-02 and ISI-03 for the Fourth Interval Inservice Inspection Plan, requesting relief from certain examination coverage requirements imposed by the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, 1995 Edition/1996 Addenda.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided and has determined that additional information is needed to complete its review. Enclosed is the NRC staff's request for additional information (RAI).

As discussed with your staff, we understand that you intend to respond to this RAI by July 1, 2011.

Please contact me at 301-415-1364 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Douglas V. Pickett".

Douglas V. Pickett, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure:
As stated

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
FOURTH 10-YEAR INSERVICE INSPECTION INTERVAL RELIEF REQUESTS
ISI-02 AND ISI-03
R.E. GINNA NUCLEAR POWER PLANT
R.E. GINNA NUCLEAR POWER PLANT, LLC
DOCKET NUMBER 50-244

The Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by R.E. Ginna Nuclear Power Plant, LLC for the R.E. Ginna Nuclear Power Plant, in its letter dated December 16, 2010, and has determined that additional information is necessary to complete the review of Relief Requests ISI-02 and ISI-03.

Relief Request ISI-02

1. Please provide the edition and addenda of the ASME Code, Section XI, Appendix VIII that was used for these examinations.
2. ASME Code Category B-F, Pressure Retaining Dissimilar Metal Welds in Vessel Nozzles, Item No. B5.70 Nozzle to Safe End Welds, NSE-3R (Inlet) and NSE-4R (Outlet)
 - a. In regards to these welds, ISI-02 states "the "B" steam generator inlet/outlet nozzle to safe-end welds are considered as dissimilar metal welds consisting of a stainless steel clad-carbon steel nozzle with Inconel Alloy 690 weld material to a stainless steel safe end." Inconel 690 is a designation for base material. Please clarify the weld material type.
 - b. Please provide a figure and coverage calculations for Component ID NSE-4R (1007190) and coverage calculations for Component ID NSE-3R (1006990). Please ensure that figures provided for both components clearly depict all wave modalities and insonification angles used (please note that the figure and caption should match) and examination limitations encountered. Please keep in mind that the figures are transmitted as black and white, so that different styles of lines should be used to distinguish between axial and circ scans or, if necessary, provide a figure for each of the scan directions.
 - c. It is the NRC staff's understanding that the Performance Demonstration Initiative (PDI) program requires two angles in order to claim ASME Code coverage for a Supplement 10, single side exam. Please clarify whether your Code coverage calculations were made using two angles. Did a single angle provide greater coverage? If so, how much?

Enclosure

- d. The PDI qualification program requires that for dissimilar metal (DM) welds, the weld crown condition must be ground flush or machined to allow for adequate scanning on top of the weld and butter material. Why wasn't the Inconel weld ground flush to allow for scanning on top of the weld and butter material?
 - e. The NRC staff believes that it would be possible to obtain greater coverage through various options including the use of phased array ultrasonic inspection (PAUT) employing site-specific mockups, if necessary. As such, please address why PAUT was not employed in the fourth interval. What will be done for future examinations to maximize ASME Code coverage?
 - f. Please address how this weld was examined during pre-service inspection (PSI) and the Code coverage achieved.
3. ASME Code Category B-J, Pressure Retaining Welds in Piping, Item No. B9.11 Circumferential Pipe Welds PL-FW-III-R and PL-FW-X-R
- a. Please provide coverage calculations for Component IDs PL-FW-III-R (I007000) PL-FW-X-R (I007200). Please ensure that figures clearly depict all wave modalities and insonification angles used (please note that the figure and caption should match) and examination limitations encountered. Please keep in mind that the figures are transmitted as black and white, so that different styles of lines should be used to distinguish between axial and circumferential scans or, if necessary, provide a figure for each of the scan directions.
 - b. The NRC staff acknowledges that these are difficult examinations; however, the staff believes that it would be possible to obtain greater coverage through various options including the use of PAUT employing site-specific mockups, if necessary. As such, please address why PAUT was not employed in the fourth interval. What will be done for future examinations to maximize ASME Code coverage?
 - c. Please address how this weld was examined during PSI and the Code coverage achieved.
4. ASME Code Category B-J, Pressure Retaining Welds in Piping, Item No. B9.11 Circumferential Pipe Welds PL-FW-XIII, PL-FW-VI, PL-FW-XV, PL-FW-VIII, D, A, B, CSW-5, A, C,H, and J
- a. For the welds listed above, please ensure that coverage calculations are provided, and that figures clearly depict all wave modalities and insonification angles used (please note that the figure and caption should match).
 - b. For Component ID PL-FW-XV (I013500), the use of insonification angles of 20°L/30°L is atypical. Was the procedure qualified to the PDI? Were these angles used for both the axial and circumferential scans? Why weren't any shear wave exams performed? Lastly, the sketch of this component for the axial exams indicates that there was coverage on the pump side, even though the pump is cast. Please provide clarification.
 - c. For Component ID H (I035900), please explain why a 45° shear wave exam was not performed. Also, the PDI Program requires, for single sided exams of components greater than 0.5" thick, the use of refracted longitudinal waves to provide adequate coverage on the far side. Though this is not a PDI qualified exam, it is considered best effort. Please address why a refracted longitudinal exam was not performed on this weld.

- d. For Component J (I036200), as asked in "c" above, please address why a longitudinal wave exam was not performed on this weld per the PDI program.
- e. On page 7 of 21, the text reads, "There were no recordable indications found during the inspection of these welds." Please clarify whether this statement refers to only the UT exams performed or does it also include the surface exams performed on welds PL-FW-VI, PL-FW-XV, H (I035900) and J?

5. ASME Code Category B-J, Pressure Retaining Welds in Piping, Item No. B9.31 Branch Weld, PL-FW-II

- a. Please ensure that the figure clearly depicts all wave modalities and insonification angles used.
- b. Please explain how 75% coverage was achieved when it was stated in the text that this was a single-sided examination only.
- c. Were any recordable indications found during either the UT or surface exams of this weld?

6. ASME Code Category B-M-1, Pressure Retaining Welds in Valve Bodies, Item No. B12.40 Valve Body Welds, V-720-1 and V-720-2

- a. The figures associated with the welds listed above do not adequately depict the limitation on the valve side. Please indicate the limitations.

Relief Request ISI-03

1. ASME Code Category C-F-1, Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping, Item No. C5.21 Circumferential Pipe Welds 18, 6, 14, 15, 8, and 56

- a. On page 3 of 11, the text states that "the examination coverage was based on the aggregate from manual scans of shear and longitudinal wave scans perpendicular and parallel to the weld in one axial direction and two circumferential directions and 0-degree longitudinal wave." In light of the fact that scans were performed in one axial and two circumferential directions, it would appear that up to 75% coverage would have been possible. Therefore, please clarify the coverage calculations for all of these welds.
- b. Was the 0-degree scan done for all of the welds?
- c. Please ensure that the figures clearly depict all wave modalities and insonification angles used, and the limitations encountered.
- d. Provide a replacement figure for Component ID 18 as the figure provided in ISI-03 is difficult to read.
- e. On page 3 of 11, the text reads, "There were no recordable indications found during the inspection of these welds." Please clarify whether this statement refers to only the UT exams performed or does it also include the surface exams performed on welds 14, 15, 8, and 56?

2. ASME Code Category C-F-2, Pressure Retaining Welds in Carbon or Low Alloy Piping, Item No. C5.51 Circumferential Pipe Welds G2-BC-2-A and L2-BC-2-A
 - a. Please clarify/provide the coverage calculations for these welds.
 - b. Please ensure that the figures clearly depict all wave modalities and insonification angles used, and the limitations encountered.
 - c. On page 4 of 11, the text reads, "There were no recordable indications found during the inspection of these welds." Please clarify whether this statement refers to only the UT exams performed or does it also include the surface exams performed on weld L2-BC-2-A?

April 13, 2011

Mr. James A. Spina, Vice President
Calvert Cliffs Nuclear Power Plant, Inc.
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

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Douglas V. Pickett, Senior Project Manager
Plant Licensing Branch I-1
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