



Constellation Energy[®]

Nine Mile Point Nuclear Station

P.O. Box 63
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March 8, 2007

U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Nine Mile Point Nuclear Station
Unit No. 1; Docket No. 50-220

Request for Authorization Under the Provision of 10 CFR 50.55a(a)(3)(i) for
Modification of the Core Shroud Stabilizer Assemblies (Tie Rods) –
Supplemental Information in Response to NRC Request for Additional
Information

REFERENCE: (a) Letter from G. Harland (NMPNS) to Document Control Desk (NRC), dated February 12, 2007, Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors," Request for Authorization Under the Provision of 10 CFR 50.55a(a)(3)(i) for Modification of the Core Shroud Stabilizer Assemblies (Tie Rods)

Nine Mile Point Nuclear Station, LLC (NMPNS) hereby transmits supplemental information requested by the NRC in support of a previously submitted request for authorization under the provision of 10 CFR 50.55a(a)(3)(i). The initial request, dated February 12, 2007 (Reference a) described a proposed modification to the Nine Mile Point Unit 1 core shroud stabilizer assemblies (tie rods). The supplemental information, provided in Attachment (1) to this letter, responds to a request for additional information that was discussed in a telephone conference call between NRC and NMPNS staff members on March 5, 2007 and was provided in a subsequent email from the NRC to NMPNS on March 6, 2007. This letter contains no new regulatory commitments.

Should you have any questions regarding the information in this submittal, please contact M. H. Miller, Licensing Director, at (315) 349-5219.

Very truly yours,

Gary Harland
Acting Manager Engineering Services

A001

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Attachments: (1) Nine Mile Point Unit 1 – Supplemental Information Regarding the Proposed
Modification of the Core Shroud Stabilizer Assemblies (Tie Rods)

cc: S. J. Collins, NRC
D. V. Pickett, NRC
Resident Inspector, NRC

ATTACHMENT (1)

**NINE MILE POINT UNIT 1
SUPPLEMENTAL INFORMATION
REGARDING THE PROPOSED MODIFICATION OF THE
CORE SHROUD STABILIZER ASSEMBLIES (TIE RODS)**

ATTACHMENT (1)

NINE MILE POINT UNIT 1 SUPPLEMENTAL INFORMATION REGARDING THE PROPOSED MODIFICATION OF THE CORE SHROUD STABILIZER ASSEMBLIES (TIE RODS)

By letter dated February 12, 2007, Nine Mile Point Nuclear Station, LLC (NMPNS) requested that the NRC authorize the use of a proposed modification to the Nine Mile Point Unit 1 (NMP1) core shroud stabilizer assemblies (tie rods) pursuant to 10 CFR 50.55a(a)(3)(i). This attachment provides supplemental information in response to a request for additional information that was discussed in a telephone conference call between NRC and NMPNS staff members on March 5, 2007 and was provided in a subsequent email from the NRC to NMPNS on March 6, 2007. Each individual NRC request is repeated (in italics), followed by the NMPNS response.

First NRC Request

The request references the BWRVIP-84 report, "BWR Vessel Internals Project, Guidelines for Selection and Use of Materials for Repairs to BWR Internals," which addresses requirements for materials that are used in the reactor vessel internal (RVI) components. In a letter dated September 6, 2005, the staff issued a safety evaluation (SE) for this report with conditions related to additional surface preparation of the cold worked materials used in RVI components. The staff requests that the licensee include a statement in its current proposal that it will comply with all the staff's conditions that are addressed in the staff's final SE including the conditions identified below.

- (A) Surface preparation of the cold worked austenitic stainless steel RVI components---Section 3.5.2 of the staff's SE.*
- (B) Surface preparation of the cold worked Alloy X-750 RVI components---Section 3.6.2 of the staff's SE.*
- (C) Electrical Discharge Machining (EDM) of Alloy X-750 RVI components---Section 3.6.3 of the staff's SE.*

Response

Review of General Electric (GE) Fabrication Specification 26A5734, Revision 7, confirms that the NMP1 replacement tie rod upper support assemblies and tie rod nut conform to the conditions described in Sections 3.5.2, 3.6.2, and 3.6.3 of the NRC staff's safety evaluation for BWRVIP-84 (issued by NRC letter to the BWRVIP Chairman dated September 6, 2005).

ATTACHMENT (1)

NINE MILE POINT UNIT 1 SUPPLEMENTAL INFORMATION REGARDING THE PROPOSED MODIFICATION OF THE CORE SHROUD STABILIZER ASSEMBLIES (TIE RODS)

Second NRC Request

By letter dated January 23, 1995, the licensee submitted a proposal to install four tie rods for the core shroud at NMP1, and in a letter dated March 31, 1995, the staff approved this repair. The licensee's submittal included General Electric's (GE) stress analysis report, GE-NE-B13-01739-04, Revision 0. Table 2-2 of GE's report included the following load case definitions which were used to evaluate stress analyses of the core shroud upper support assembly.

- (1) Normal Operation*
- (2) Upset # 1*
- (3) Upset # 2*
- (4) Emergency # 1*
- (5) Emergency # 2*
- (6) Emergency # 3*
- (7) Faulted # 1*
- (8) Faulted # 2*
- (9) Faulted # 3*

In the current proposal, dated February 12, 2007, the licensee intends to replace upper support assembly, and the stress analyses (GE Report GE-NE-0000-0061-6180-R2-P) were established for load cases representing one emergency condition and one faulted condition. Provide an explanation for not using three emergency and three faulted conditions (used in original modification in 1995) for developing stress analyses for the current modification. Explain why the stress analyses used in the current modification are bounding.

Response

The evaluation performed for the proposed tie rod modification considered all of the load combinations identified in Table 2-2 of GE-NE-B13-01739-04, Revision 0 (the original design basis report), for each service level. The original normal and upset load combinations (load cases (1), (2) and (3)) were used for the modified design. While there were originally three load combination cases for each of the Emergency and Faulted conditions, the stress analysis for the replacement upper support was performed for the bounding (largest) load within each service level. In the emergency condition, the Emergency-2 combination (based on main steam line break loss of coolant accident (LOCA)) was bounding compared to the Emergency-1 (based on seismic) and Emergency-3 (based on recirculation suction line break LOCA) cases. In the faulted condition, the Faulted-1 combination (based on main steam line break LOCA plus seismic) was bounding and was more than a factor of 2 larger than the next largest load combination case (Faulted-3, based on recirculation suction line break LOCA plus seismic).