August 23, 2006

Mr. James H. Riley
Senior Director, Engineering
Nuclear Generation Division
Nuclear Energy Institute
1776 I Street, NW
Washington, DC 20006-3708

SUBJECT: Reporting of MRP-139 Inspection Findings

Dear Mr. Riley:

This letter is in followup to our May 5, 2006, public meeting between Nuclear Regulatory Commission (NRC) staff and members of the Materials Reliability Program (MRP) and Nuclear Energy Institute (NEI) that addressed primary water stress corrosion cracking (PWSCC) in reactor coolant system dissimilar metal butt welds in pressurized water reactors. The purpose of the public meeting was to discuss industry responses to an October 12, 2005, letter from M. Mayfield (NRC) to A. Marion (NEI) which outlined a number of NRC staff concerns, comments, and recommendations pertaining to MRP-139, "Primary System Piping Butt Weld Inspection and Evaluation Guidelines."

One item discussed during the May 5, 2006, public meeting was NRC staff's desire to receive timely information regarding inspection findings from MRP-139 mandated inspections. NRC staff requested a process be established to provide this data during refueling outages. To more clearly understand the request, members of the MRP staff asked the NRC staff to provide a list of specific details that the NRC would prefer be included in a licensee MRP-139 inspection report. This letter is provided in response to that request.

Due to the developing nature of this phenomenon in dissimilar metal butt welds, the NRC staff requests to be verbally informed within forty-eight (48) hours once a licensee makes a determination that an indication is attributable to PWSCC. In order to ensure effective regulatory oversight of this issue, NRC staff requests the following written information be provided within sixty (60) days following startup for all facilities which identify indications attributable to PWSCC.

1. System and component location affected (e.g., pressurizer surge line nozzle)

2. Flaw location, size (length, depth), and orientation, including;
   - a detailed mapping of all findings at this location (service and non-service induced),
   - correlation of flaw to any repairs including the location and repair type (if available),
   - correlation of flaw to grinding (if applicable),
   - destructive information related to flaw morphology (if available).

3. Non-destructive examination data (e.g., image maps from ultrasonic scans, eddy current signals, penetrant indication map, digitized radiographic images) including an indication of whether the ultrasonic examination technique used was ASME Code, Section XI, Appendix VIII qualified. Also include information from reviews of historic information and actions taken to determine whether an indication was present in prior inspection data.

4. Materials involved and any relevant fabrication/processing/geometry information (that may have made this location more (or less) susceptible to degradation). For example, for safe end attachment welds, provide the distance between the alloy 82/182 weld and the stainless steel weld.

5. Temperature at location of flaw, effective full power years (EFPY) at time flaw was discovered, EFPY at the time this location was last inspected.

As discussed during the May 5, 2006, public meeting, the inspection findings in March 2006, highlight the NRC concerns in this area, and timely communication on this topic will provide appropriate information to assess whether current activities to address this degradation mechanism in pressure retaining dissimilar metal butt welds remain sufficient to provide reasonable assurance of public health and safety. We appreciate the industry's proactive involvement in identification and resolution of materials degradation issues, including the impact of PWSCC on dissimilar metal butt welds. If you have any questions regarding this information, please contact me.

Sincerely,

/RA/

John A. Grobe, Director
Division of Component Integrity
Office of Nuclear Reactor Regulation

cc:
G. L. Vine, Executive Director, Washington Representative, EPRI
R. L. Dyle, Southern Company
M. Robinson, Chair, MRP Issue Integration Group
J. Gasser, Executive Chair of PWR Materials Management Program
D. Modeen, Chief Nuclear Officer, Electric Power Research Institute
C. King, Senior Project Manager for Alloy 600 Issues, MRP

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