

December 11, 2001

MEMORANDUM TO: William H. Bateman, Chief  
Materials and Chemical Engineering Branch  
Division of Engineering

FROM: C. E. Carpenter, Jr., Materials Engineer */ra/*  
Materials and Chemical Engineering Branch  
Division of Engineering

SUBJECT: SUMMARY OF NOVEMBER 27, 2001, MEETING WITH THE EPRI  
MATERIALS RELIABILITY PROGRAM ON STATUS OF INDUSTRY'S  
GENERIC ACTIVITIES ON ALLOY 600 CRACKING ISSUE, AND  
ACTIVITIES BY PWR OWNERS' GROUPS RELATED TO TGSCC

On November 27, 2001, members of the NRC staff and representatives from the Electric Power Research Institute (EPRI) Materials Reliability Program (MRP), the Nuclear Energy Institute (NEI), representatives of the pressurized water reactor (PWR) Owners' Groups, various licensees, and members of the public participated in a public meeting held at the Nuclear Regulatory Commission (NRC) offices in Rockville, Maryland. Attachment 1 lists attendees physically at the meeting (the meeting was open to public attendance via teleconference and those listening in did not identify themselves during or after the meeting), and Attachment 2 is the meeting agenda.

This meeting had been requested by the NRC staff by letter dated September 14, 2001, from Dr. Brian Sheron, Associate Director for Project Licensing and Technical Analysis in the Office of Nuclear Reactor Regulation (NRR), to Mr. Alex Marion, Director of Engineering for the NEI, as the regulatory interface for the EPRI MRP. The original purpose of the meeting was to discuss an industry-wide response to the potential generic implications arising from the discovery of through-wall cracking in PWR control rod drive mechanism (CRDM) housings at the Palisades nuclear plant. This cracking was located several feet above the nozzle head penetration through the upper head, and the licensee had made a root cause determination for this crack as being initiated by transgranular stress corrosion cracking (TGSCC). Since the staff was also planning to meet with the industry on issues related to the Alloy 600 cracking issue and the industry's response to NRC Bulletin 2001-01, and the two meetings would encompass many of the same attendees, the scope of this meeting was expanded to include both topics in order to improve overall efficiency and effectiveness.

It should be noted that all of the material that is non-proprietary in nature is publically available both in ADAMS and will be posted on the NRC's web site for this issue ("Generic Activities on PWR Alloy-600 Weld Cracking" - <http://www.nrc.gov/NRC/REACTOR/ALLOY-600/index.html>), when the web site is returned to service.

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The meeting began with a presentation by Mr. Larry Mathews, Chairman of the MRP's Alloy 600 Issue Task Group (ITG) (see Attachment 3 for MRP viewgraphs). In general, Mr. Matthews discussed the overall plan developed by the Alloy 600 ITG to address the issues of concern regarding Alloy 82/182 butt welds, including activities to date and future plans, then gave a description of the MRP's activities related to cracking in Alloy 600 RPV head penetrations, including the current inspection status, future inspection plans, the MRP's development of a risk assessment and calculations of the crack growth rates (presented by Raj Pathania of EPRI), status of non-destructive examination methodologies and tooling being developed, and plans for repairs. Mr. Matthews concluded the MRP presentation with comments on the need for more frequent communications between the industry and the staff, and then gave a short overview of the work to date on the TGSCC issue.

Representatives of the three PWR Owners' Groups (Westinghouse - WOG, Babcock & Wilcox - B&WOG, and Combustion Engineering - CEOG) made short presentations on the status of their respective activities related to TGSCC (see Attachments 4, 5 and 6). Each of the Owners Groups are determining the generic susceptibility of their CRDM housings to TGSCC-type degradation, and they each plan to have recommendations for future actions for their CRDM housings by the first quarter of CY-2002. The staff will continue to follow these activities.

Further meetings will be scheduled as necessary to facilitate the timely exchange of technical information and to ensure that the stakeholders are kept informed of the status of the issue in the regulatory process

Attachments: As stated

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AGENDA  
NOVEMBER 27, 2001

Introduction	NRC/NEI
Alloy 600 Update	NEI/MRP
TGSCC Issues	PWROGS
Conclusion	NRC/NEI