February 11, 2009

MEMORANDUM TO: Michael R. Johnson, Director
Office of New Reactors

FROM: David Terao, Chief ***/RA/***
Component Integrity, Performance, and Testing Branch 1
Division of Engineering
Office of New Reactors

SUBJECT: REPORT OF FOREIGN TRAVEL TO MONTREAL, CANADA FOR THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER CODE MEETINGS

Enclosed is a combined summary trip report of participation by the Office of New Reactors (NRO) staff (Eric Reichelt, Robert Davis, and David Terao) from the Division of Engineering in meetings of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code held in Montreal, Canada on February 2-5, 2009. The purpose of the meetings was to participate in the development of consensus standards through various Code working groups, task groups, and Committees.

The ASME Boiler Code meetings were held at the Le Centre Sheraton Montreal Hotel. The NRO staff participated in many Code meetings throughout the week. Enclosed are the specific ASME Code groups and summaries of the items discussed at each meeting attended by the NRO staff.

The enclosed report serves as the quick-look and formal trip report. This report is not likely to be of interest to the Commission since these meetings are part of regularly scheduled ASME Code meetings held quarterly in the U.S. and Canada.

Enclosure:
As stated

cc: B. Mallet, DEDR
M. Virgilio, DEDMRT

CONTACT: David Terao, NRO/DE/CIB1
301-415-3317

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ADAMS ACCESSION NUMBER: ML090420120

OFFICE	NRO/DE/CIB1	NRO/DE/CIB2	NRO/DE/CIB1	NRO/DE:DD
NAME	EReichelt	RDAvis	DTerao	LDudes
DATE	02/11/09	02/11/09	02/11/09	02/11/09

OFFICIAL RECORD COPY

Quick Look Foreign Trip Report

Dates of Travel:

February 1, 2009 – February 5, 2009

Location:

Montreal, Canada

Subject

Meetings of the ASME Boiler and Pressure Vessel Code attended by the staff of the Nuclear Regulatory Commission's Office of New Reactors, Division of Engineering

Author,Title,Affiliation:

David Terao, Chief
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Eric Reichelt, Senior Materials Engineer
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Robert Davis, Senior Materials Engineer
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Division of Engineering
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Sensitivity

Non-Sensitive; public disclosure
Meeting discussions and materials distributed are not proprietary; this information may be released to the public.

Background/Purpose of Meeting

On February 2-5, 2009, the ASME Code members held regularly scheduled meetings to discuss development and changes to its Boiler and Pressure Vessel Code. The following ASME Code groups were attended by NRO staff. A summary of the items discussed at each meeting are discussed below.

Abstract: Summary of Pertinent Issues

SubGroup on Industry Experience for New Plants (III/XI): Attended and reported by David Terao for Jeffrey Poehler

The relatively new group was created in April 2008 at the Vancouver, BC meeting. Originally, it was called the Special Working Group on New Reactors. Subsequently, it was renamed a Task Group on New Reactors. Recently, it has been designated the SubGroup on Industry Experience for New Plants. The SubGroup on IE is still defining its charter. After some discussions about the scope of responsibility of this SubGroup, it was decided that it will address only advanced light water reactors; and not advanced reactor designs such as high-temperature gas-cooled reactors and liquid metal reactors. Further discussions on charter were tabled. The SubGroup will function as a clearinghouse for new reactor issues that may necessitate the development of new Code requirements or revisions to the ASME Boiler Code. The SubGroup will identify and define these issues for action to be taken with the appropriate Section III or XI Committee.

The SubGroup discussed the format to be used by the SubGroup for identifying New Reactor Code issues to be assigned to either the appropriate Section III or Section XI Committee. Two related items involving designing new plants for accessibility to perform inservice inspections were proposed by Doug Henry. The SubGroup unanimously voted in favor to move these two items forward to Section III after some discussion and changes to the format to be used for the issue identification sheet were made by the SubGroup. As a starting point in identifying future items to be considered by the SubGroup to be forwarded to Section III or XI, the SubGroup decided to reconstitute the punchlist of items proposed by the NRC that were provided at the initial meeting in April 2008. The SubGroup assigned three volunteers (Wally Norris, Hal Gustin, and Eric Willis) to work together to prepare issue identification sheets for each item from the NRC's proposed punchlist.

SG Performance and Procedure Qualification (SC IX) and Standards Committee on Welding (SC IX): Attended and reported by Eric Reichelt

During these meetings, a discussion was held on Code Case 2326 which would allow UT examination for welder qualifications in lieu of the current requirements for RT and sectioning. This Code Case has been around since 2001 and was back for reaffirmation after a negative vote in the Main Committee. At that time, there was no NRC representative on Section IX to cast a vote. However, during the current meeting, the staff presented concerns of relaxing the current welding requirements. The staff believes that welders should be held to a higher standard during qualification than those that are required for general production.

Because the project manager was not in attendance, the committee agreed to revisit this Code Case in May. In addition to the NRC, there were 5 other members who concurred to re-visit this topic in May.

TG Joining Plastic Pipe (SC IX): Attended and reported by Eric Reichelt

This was the first meeting of the TG after its initial meeting in November, 2008. The TG discussed the charter and the eventual goals of incorporating joining requirements for plastic pipe in Section IX. The NRC expressed its concerns about the inspection requirements

(currently VT only) and the qualification requirements (i.e., tensile testing, metallographic mounts, etc.). Additionally, there were discussions concerning what essential variables are required for procedure qualifications. Further discussions and work will be continued in May 2009 to incorporate requirements in Section IX.

SG Materials Fabrication & Examination (SC III): Attended and reported by Robert Davis

The SubGroup discussed several items related to design certification application reviews currently being conducted by the staff. The AP1000 containment vessel design will be changed to include the use of shear studs to connect the bottom head to the nuclear-island basemat. Currently, ASME Code, Section III, NE-4311.1 specifies stud-welding restrictions for ASME Code Class MC (metal containment) construction. Westinghouse seeks to initiate a Code Case, similar to Code Case N-312 that would permit shear studs to be welded to a containment vessel by stud welding in order to attach a Division 1, Class MC metal containment to the nuclear-island concrete basemat designed in accordance with ACI-349-2001, "Code Requirements for Nuclear Safety Related Structures." The staff representative raised issues related to the visual acceptance criteria presented in Westinghouse's draft, proposed code case. The staff expressed concerns that the visual acceptance criteria may not provide sufficient detail. The lack of detail could lead to confusion during the inspection of weld procedure qualifications and during fabrication. Westinghouse intends to revise its proposed code case to incorporate comments from the NRC staff and other SubGroup members, and resubmit the proposed Code Case to the SubGroup.

AREVA representatives presented information related to the inclusion of SA-479, UNS S41500 in Section II, Part D for use in ASME Code, Section III, Class 1 construction. AREVA seeks to extend the properties currently provided in Section II Part D for SA-182 Grade F6NM, UNS S41500 to SA-479, UNS S41500. SA-182 is forged product material, but due to the EPR CRDM pressure housing design, SA-479, UNS S41500 (solid bar material) is required. Chemical composition requirements and mechanical property requirements of these materials are identical. The SubGroup recommended to AREVA, that they initiate a Code Case in lieu of attempting to modify Part D because of timeliness issues. The use of SA-479, UNS S41500 is currently an issue in the staff's review of EPR design certification because this material specification and grade are not listed in the ASME Code for use in the fabrication of ASME Code, Class 1 components. ASME Code approval of a Code Case to allow the use of SA-479 and approval of the Code Case by the NRC will provide a path to resolve the above EPR issue.

The SubGroup discussed a proposed action to incorporate, into ASME Code Section II, materials currently listed in Code Cases N-71 and N-249 for Section III, Division 1 construction. Due to the large number of materials included in these Code Cases and the current conditions imposed by the staff on these Code Cases in RG 1.84, the SubGroup recommended that the materials listed in these Code Cases not be incorporated into ASME Code, Section II, Part D. These materials may continue to be used but only as prescribed in the Code Cases with conditions specified in RG 1.84.

Pending Actions/Planned Next Steps

The next ASME Boiler Code meetings will be held in San Diego, California from May 11-15, 2009 at the Town and Country hotel.