

September 16, 2015

MEMORANDUM TO: Gloria J. Kulesa, Chief
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: Alan T. Huynh, Materials Engineer **/RA/**
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Engineering
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE AUGUST 19, 2015, CATEGORY 2
PUBLIC MEETING WITH THE STEAM GENERATOR TASK
FORCE TO DISCUSS STEAM GENERATOR ISSUES

The industry's Steam Generator Task Force (SGTF) met with U.S. Nuclear Regulatory Commission (NRC) staff on August 19, 2015, at the Electric Power Research Institute's office in Charlotte, NC. The purpose of the meeting was to discuss a variety of steam generator issues. The topics are shown in the industry's slides, which are available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML15231A575. The enclosure to this letter provides a list of people who attended the meeting in person and by phone. This meeting was noticed as a public meeting and the agenda is available in ADAMS under Accession No. ML15204A365.

During the meeting, industry and NRC participants made presentations. At various points in the meeting, there were additional discussions about the agenda topics. Information exchanged during these discussions is summarized below:

Acronyms used and not defined in the industry slides include:

- 3dP – three times the normal operating differential pressure
- B&W – Babcock and Wilcox
- BWXT – BWX Technologies
- EdF – Électricité de France
- FO – foreign object
- gpd – gallons per day
- INPO – Institute of Nuclear Power Operations
- KHNP – Korea Hydro & Nuclear Power
- ksi – kilopounds per square inch
- MA – mill annealed
- MHI – Mitsubishi Heavy Industries
- OD – outside diameter
- Tech Spec – Technical Specifications

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During the meeting, industry made a presentation which addressed topics described in the meeting notice. At various points in the meeting, there were additional discussions about agenda topics. Information exchanged during these discussions and not included in the presentation materials is summarized below:

- With regards to the air flow tests, Canadian Nuclear Labs has an existing test rig, which avoids the need to design and build a test rig. Approximately ten tests will be performed. Industry also indicated that they will evaluate the path forward as the test results are obtained.
- The new ASME Code action regarding tube-to-tubesheet joint design is related to design rules for tube-to-tubesheet welds.
- The NRC staff indicated that when the operational leakage limit in the Tech Specs is exceeded, a tube performance criteria is exceeded, which could lead to additional NRC oversight.
- Industry indicated that the *Steam Generator Deposit Removal Strategies Sourcebook* was developed since deposits can decrease heat transfer from the primary to secondary loops and accelerate potential tube degradation. The sourcebook provides maintenance strategies for reducing deposit buildup through chemical cleaning and mechanical means.
- The NRC staff indicated that it was considering a Generic Communication (either an Information Notice or a Regulatory Issue Summary) to provide information related to the design basis of the tube-to-tubesheet weld.
- The NRC staff indicated that they are still reviewing the Divider Plate Cracking Report and have yet to draw any conclusions. They also stated that if they identify any issues during the course of the review, they would inform industry. There is no detailed schedule for completion of the review at this time.
- The NRC staff indicated that, at the next NRC/SGTF meeting, they would like to discuss whether the industry guidelines require the use of qualified inspection techniques to inspect for loose parts and/or loose part wear at the top of the tubesheet on the cold leg side when this is an existing or potential degradation mechanism.

Project No.: 689

Enclosure:
Attendance List

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DISTRIBUTION: DE R/ RidsNrrAdes RidsNrrOd PUBLIC AObodoako GMakar
JLubinski AHiser SMin MRossi AJohnson MJRoss-Lee

ADAMS ACCESSION Nos.: Package: ML15233A431

Meeting Summary: ML15233A427

Meeting Notice: ML15204A365

Industry Slides: ML15231A575

OFFICE	NRR/DE/ESGB	NRR/DE	NRR/DE/ESGB
NAME	AHuynh	KKarwoski	GKulesa
DATE	09/09/2015	09/14/2015	09/16/2015

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Attendance List
August 19, 2015, NRC Public Meeting with the
Steam Generator Task Force to Discuss Steam Generator Issues

Note: The list of phone participants may not be all-inclusive

SGTF/Industry Participants

April Schilpp, EPRI
Brent Capell, EPRI
C. Lee Friant, Exelon
Clay Perry, EPRI
Damian Testa, Westinghouse
Dan Mayes, Duke Energy
Daniel Folsom, TVA
Edward Korkowski, NextEra Energy
Greg Kammerdeiner, First Energy
Harry L. Smith, Exelon
James Benson, EPRI
Jeff Fleck, Areva
Jesse Baron, Westinghouse
Kent Colgan, Areva
Michael Schneider, BWXT
Phil Rush, MPR Associates
Richard S. Maurer, Westinghouse
Russ Cipolla, Intertek
Ryan Wolfe, EPRI
Scott A. Redner, Xcel Energy
Steve Brown, Entergy
Steve Fluit, BWXT
Tim Thulien, Duke Energy
Todd Mayer, Dominion
Tom Bipes, Zetec

NRC

Alan Huynh
Seung Min
Greg Makar
Ken Karwoski
Andrew Johnson
Brendan Collins
Harold Gray
Jeff Kulp
Shakur A. Walker

Phone Participants

Chris Hamilton, Westinghouse
Thomas Magee, Westinghouse
Thomas C. Watson, Westinghouse

Members of the Public Phone Participants

Alan Belensz, State of New York

Enclosure