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2007-233 _____ BWR Vessel & Internals Project (BWRVIP) Proj 704

August 9, 2007

Document Control Desk
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Attention: John Honcharik

Subject: BWRVIP Documentation to Support Industry Steam Dryer Integrity Evaluations

The purpose of this memo is to provide a summary and schedule for planned submittals of BWRVIP documentation related to the evaluation of steam dryer integrity.

The BWRVIP has previously submitted "BWRVIP-139: BWR Vessel and Internals Project, Steam Dryer Inspection and Flaw Evaluation Guidelines" and a revision to Section 4.0 of BWRVIP-06-A "Consideration of Loose Parts" for NRC review. NRC has provided Requests for Additional Information (RAIs) on these documents and BWRVIP is currently preparing responses to these RAIs. The BWRVIP recognizes that the preparation of these responses has taken an extended time period however BWRVIP intends to submit these responses to NRC in the near term (see Submittal Schedule below).

BWRVIP also recognizes the need for standardization of the approach and methods used by licensees in demonstrating steam dryer integrity as part of power uprate applications. In response to this need BWRVIP is currently preparing three additional documents for NRC submittal:

1. BWRVIP Steam Dryer Integrity Demonstration Guidance Document

   This document will provide overarching guidance to licensees planning a power uprate for evaluating the integrity of their steam dryer at power uprate conditions.

   The Guidance Document will:

   - Require screening to assess the potential for main stream line (MSL) acoustic excitation at power uprate conditions
   - Provide optional approaches depending on the results of screening
   - Provide guidance on instrumenting main steam lines (MSLs) to obtain MSL dynamic pressures

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- Require that plant data be obtained and that steam dryer pressure loading and stresses be evaluated and confirmed to be acceptable at power uprate conditions prior to application for a power uprate license
- Define the types of loads, load combinations and associated stress allowable criteria to be used in steam dryer structural evaluations at power uprate
- Provide guidance in conducting confirmatory power ascension testing
- Require that the technical basis and benchmarking of methods used to evaluate steam dryer pressure loading and stresses be documented and submitted to the NRC

The Guidance Document will not require application of any specific vendor's technologies but it will provide requirements and acceptance criteria that must be met in demonstrating steam dryer integrity.

2. BWRVIP Steam Dryer Repair Design Criteria Report

   This document will provide guidance for the design of repairs to dryers as well as for the design of new dryers. This guidance will include a list of the loads and load combinations that must be evaluated and stress limits that must be met by the repair or the new design.

3. BWRVIP Steam Dryer Topical Report

   BWRVIP will prepare a Topical Report for NRC submittal that will include:

   - A description of an overall steam dryer structural integrity demonstration approach meeting the requirements of the BWRVIP Steam Dryer Guidance Document
   - Technical descriptions of all test and analytical methods to be employed in demonstrating steam dryer integrity
   - Documentation of the validation of each test or analytical method
   - Justification of the uncertainty associated with each test or analytical method
   - Justification of the end-to-end uncertainty in steam dryer stresses predicted using the methodology

   The methods to be documented in the BWRVIP Topical Report will be based on Continuum Dynamics, Inc. and Structural Integrity Associates technologies.

Submittal Schedule

The schedule for submittal of the aforementioned BWRVIP documentation is shown in the table below. It is the intent that BWRVIP utilities can apply the approach and methods documented in these submittals to demonstrate steam dryer integrity as part of a power uprate application.

A key milestone in the schedule is an early meeting with the NRC staff to review the planned content and details of the BWRVIP Steam Dryer Integrity Demonstration Guidance Document. This meeting would be held prior to the publication and submittal of the document so that comments and feedback from the NRC staff can be incorporated prior to submittal. The dates for submittal of the documentation identified in the table below assume this meeting with the NRC staff will be held no later that the date indicated in the table.

Item	Date
Meeting with NRC Staff	October 26, 2007
Responses to RAIs on BWRVIP-139	November 30, 2007
Responses to RAIs on BWRVIP-06-A	November 30, 2007
BWRVIP Steam Dryer Integrity Demonstration Guidance Document	December 20, 2007
BWRVIP Steam Dryer Repair Design Criteria Report	December 20, 2007
BWRVIP Steam Dryer Topical Report	March 31, 2008

If you have any questions regarding these planned submittals please contact Charles Wirtz at First Energy by telephone at 440.280.7665 or by e-mail at cjwirtz@firstenergycorp.com or Randy Stark at EPRI by telephone at 650.855.2122 or by e-mail at rstark@epri.com.

Sincerely,

Rick Libra

Rick Libra
Chairman, BWR Vessel and Internals Project

c: BWRVIP Technical Chairs
BWRVIP EPRI Task Managers
Amir Shahkarami (Exelon)
Randy Bunt (SNOC)
Sharon Eldridge (Exelon)
Matthew Mitchell (NRC)