



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 23, 2010

LICENSEE: Omaha Public Power District  
FACILITY: Fort Calhoun Station  
SUBJECT: SUMMARY OF FEBRUARY 24, 2010, CATEGORY 1 TELECONFERENCE  
WITH OMAHA PUBLIC POWER DISTRICT ON GENERIC LETTER 2004-02  
(TAC NO. MC4686)

On February 24, 2010, a Category 1 public teleconference was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Omaha Public Power District at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the teleconference was to discuss with representatives of Omaha Public Power District (OPPD, the licensee) the NRC request for additional information (RAI) regarding Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors," dated February 12, 2010, for Fort Calhoun Station, Unit 1 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100150072). A list of participants is enclosed.

The licensee provided draft responses and the NRC staff discussed each proposed response in detail with the licensee and its contractor. The following summarizes the discussion of each proposed response:

- RAI 3 – The licensee plans to reband jacketing with stainless steel to be consistent with testing performed by Ontario Power Generation, Inc. The licensee's response is expected to include planned spacing and configuration. The licensee is expected to resubmit this draft response.
- RAI 5 – The licensee plans to provide more detail in its resubmittal of this response. The NRC staff suggested that the licensee view the response to a similar RAI from Millstone Power Station, Units 2 and 3, dated March 13, 2009 (ADAMS Accession No. ML090750436), for an example of a possible response. The licensee plans to resubmit its draft response.
- RAI 7 – The licensee is expected to discuss how it determined the plant-specific assumption but would state that the analysis assumes 10 percent. The licensee is expected to resubmit this draft response.
- RAI 10 – The licensee plans to provide a detailed evaluation, unless it chooses to remove the settling assumption. This is an unresolved issue and requires further discussion.
- RAI 11 – The licensee stated that the results of the Alion testing will be examined in the near future. The licensee stated that it plans to reference the test report in

its final response. The NRC staff stated that the 10 percent assumption may be acceptable if the post-test data is relatively consistent with the long-term test. The licensee is expected to reflect the above in its final response.

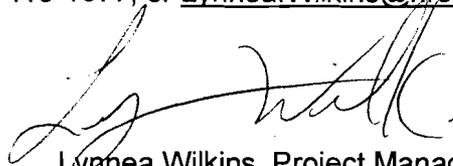
- RAI 12 – The licensee’s draft response addressed the NRC staff’s concerns and did not require additional discussion. However, the NRC staff suggested that it would be beneficial to add a discussion of conservatism involved in linear extrapolation.
- RAI 15 – The licensee plans to provide additional data to show that bed morphology is similar over the extrapolated range. This is an unresolved issue and requires further discussion.
- RAI 20 – The licensee is expected to show that plant computational fluid dynamics (CFD) velocities are bounded by the test flume velocities. The licensee is also expected to provide contour plots in the region around the strainer modeled, describe changes from the previous CFD model, and demonstrate that turbulence kinetic energy in test conditions bounds the plant condition as well as include turbulence contour plots. The licensee also stated that the testing stirred material and placed material on strainer. The NRC staff requested the licensee to provide evidence of lack of settling. This is an unresolved issue and requires further discussion.
- RAI 25 – The licensee stated that it expects to remove materials sufficient to make the present test bound assumptions of these materials as particulate, thereby making the present test valid. The licensee is expected to reflect the above in the final response.
- RAI 34 – The licensee’s draft response addressed the NRC staff’s concerns and did not require additional discussion.
- RAI 35 – The licensee is expected to modify its response to state that aluminum remaining after modifications will precipitate. The licensee is expected to resubmit this draft response.
- RAI 36 – The licensee’s draft response addressed the NRC staff’s concerns and did not require additional discussion.
- RAI 37 – The NRC staff expressed objection to the licensee’s notion that lower fiber leads to worst case for head loss. The staff also expressed objection to the licensee’s view that sampling at the end of the outage conservatively predicts the amount of latent material present. The licensee considered this feedback and will decide on a path forward. This is an unresolved issue and requires further discussion.
- RAI 38 – The licensee is expected to state that all insulation debris introduced into small and large break design-basis tests were fines. The licensee is expected to reflect the above in the final response.

- RAIs 39-47 – The licensee plans to respond to the request for information without citing the WCAP/Wylie zone of influence reduction reports. Instead, the licensee is considering alternate refinements. The licensee is expected to discuss the assumption that zone of influence 3D is acceptable for the line that incurs the break (pressurizer spray line). The staff informed the licensee that any proposed refinements would likely require significant discussion. Such discussion should occur soon. This is an unresolved issue and requires further discussion.

Following the discussion of the above RAIs, the NRC staff and the licensee agreed that additional telephone calls and/or meeting(s) are needed to resolve the remaining issues. The phone calls and/or meetings will be noticed to the public.

The February 12, 2010, meeting notice and agenda are available under ADAMS Accession No. ML100430274. The public was invited to participate in the teleconference and was given the opportunity to communicate with the NRC after the business portion, but before the meeting was adjourned. The meeting was attended by one member of the public. The individual did not ask any questions or make any oral statements during the time allocated for public participation. No Public Meeting Feedback forms were received

Please direct any inquiries to me at 301-415-1377, or [Lynnea.Wilkins@nrc.gov](mailto:Lynnea.Wilkins@nrc.gov).



Lynnea Wilkins, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure:  
List of Participants

cc w/encs: Distribution via Listserv

LIST OF PARTICIPANTS

CATEGORY 1 PUBLIC TELECONFERENCE ON FEBRUARY 24, 2010

BETWEEN U.S. NUCLEAR REGULATORY COMMISSION

AND OMAHA PUBLIC POWER DISTRICT (OPPD)

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

<b>Name</b>	<b>Organization</b>
Bill Hansher	OPPD
Donna Lippy	OPPD
Dr. Joe Gasper	OPPD
Jan Bostelman	Alion Science & Technology, Inc.
Todd Anselmi	Alion Science & Technology, Inc.
Jim Furman	Alion Science & Technology, Inc.
Andy Roudenko	Alion Science & Technology, Inc. (CA)
Gil Zigler	Alion Science & Technology, Inc. (NM)
Tim Sande	Alion Science & Technology, Inc. (NM)
Michael Scott	NRC
Paul Klein	NRC
John Lehning	NRC
Stephen Smith	NRC
Emma Wong	NRC
Lynnea Wilkins	NRC

Enclosure

- expected to reflect the above in the final response. The NRC staff does not expect to review a draft response.
- RAIs 39-47 – The licensee plans to respond to the request for information without citing the WCAP/Wylie zone of influence reduction reports. Instead, the licensee plans alternate refinement and needs to discuss the assumption that 3D is acceptable for the line that incurs the break (pressurizer spray line). This is an unresolved issue and requires further discussion.

Following the discussion of the above RAIs, the NRC staff and the licensee agreed that additional telephone calls and/or meeting(s) are needed to resolve the remaining issues. The phone calls and/or meetings will be noticed to the public.

The February 12, 2010, meeting notice and agenda are available under ADAMS Accession No. ML100430274. The public was invited to participate in the teleconference and was given the opportunity to communicate with the NRC after the business portion, but before the meeting was adjourned. The meeting was attended by one member of the public. The individual did not ask any questions or make any oral statements during the time allocated for public participation. No Public Meeting Feedback forms were received

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/RA/

Lynnea Wilkins, Project Manager  
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**ADAMS Accession Nos. Meeting Notice: ML100430274, Meeting Summary ML100620072**

OFFICE	DORL/LPL4/PM	DORL/LPL4/PM	DORL/LPL4/LA	DORL/SSIB/BC	DORL/LPL4/BC	DORL/LPL4/PM
NAME	LWilkins	AWang	JBurkhardt	MScott	MMarkley JRHall for	LWilkins
DATE	3/11/10	3/18/10	3/10/10	3/23/10	3/23/10	3/23/10