

LimerickNPEm Resource

From: Kuntz, Robert
Sent: Tuesday, May 22, 2012 1:21 PM
To: Christopher.Wilson2@exeloncorp.com
Cc: Anthony Z. Roisman; gfettus@nrdc.org; Smith, Maxwell; Kanatas, Catherine
Subject: DRAFT Teleconference summary RE: Limerick LRA DRAI call held February 17, 2012
Attachments: Limerick LRA DRAI Teleconference Summary for call 2-17-12.docx

Chris,

Attached is a DRAFT teleconference summary from a call held between Exelon and the NRC staff. Let me know if Exelon has any comment on the attached by Friday May 25, 2012.

Robert Kuntz
Sr. Project Manager
NRR/ADRO/DLR/RPB1
(301) 415-3733
robert.kuntz@nrc.gov

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Subject: DRAFT Teleconference summary RE: Limerick LRA DRAI call held February 17, 2012
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From: Kuntz, Robert

Created By: Robert.Kuntz@nrc.gov

Recipients:

"Anthony Z. Roisman" <aroisman@nationallegalscholars.com>

Tracking Status: None

"gfettus@nrdc.org" <gfettus@nrdc.org>

Tracking Status: None

"Smith, Maxwell" <Maxwell.Smith@nrc.gov>

Tracking Status: None

"Kanas, Catherine" <Catherine.Kanas@nrc.gov>

Tracking Status: None

"Christopher.Wilson2@exeloncorp.com" <Christopher.Wilson2@exeloncorp.com>

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Options

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Recipients Received:

LICENSEE: Exelon Generation Company, LLC

FACILITY: Limerick Generating Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON
FEBRUARY 17, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY
COMMISSION AND EXELON GENERATION COMPANY, LLC, CONCERNING
REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE
LIMERICK GENERATING STATION, LICENSE RENEWAL APPLICATION (TAC.
NOS. ME6555 AND ME6556)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Exelon Generation Company, LLC held a telephone conference call on February 17, 2012, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Limerick Generating Station license renewal application. The telephone conference call was useful in clarifying the intent of the staff's RAIs.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

Robert F. Kuntz, Sr. Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures:

1. List of Participants
2. List of Requests for Additional
Information

cc w/encls: Listserv

LICENSEE: Exelon Generation Company, LLC

FACILITY: Limerick Generating Station

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DISTRIBUTION: See next page

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NAME	IKing	RKuntz	DMorey	RKuntz
DATE	05 / /12	05 / /12	05 / /12	05 / /12

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TELEPHONE CONFERENCE CALL
LIMERICK GENERATING STATION
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
April 17, 2011

PARTICIPANTS

Robert Kuntz
On Yee
Ching Ng
Christopher Wilson
Gene Kelly
Al Fulvio
Mike Guthrie
Ron Hess

AFFILIATIONS

Nuclear Regulatory Commission (NRC)
NRC
NRC
Exelon Generation Company, LLC (Exelon)
Exelon
Exelon
Exelon
Exelon

**TELEPHONE CONFERENCE CALL
LIMERICK GENERATING STATION
LICENSE RENEWAL APPLICATION**

April 17, 2011

DRAI 4.1-1.1

Background

Updated final safety analysis report (UFSAR) Section 3.9.1.1.8 was referenced in the response to RAI 4.1-1. UFSAR Section 3.9.1.1.8 contains a listing of transients in the main steam isolation valve (MSIV) fatigue analysis. One of these transients included in this section is "Preop @ 100 F/hr" with a limit of 150 cycles.

Issue

The staff noted that the "Preop @ 100 F/hr" transient was not included in license renewal application (LRA) Tables 4.3.1-1 and 4.3.1-2; therefore, it is not clear to the staff whether this transient is monitored, needs to be monitored or will be monitored during the period of extended operation.

Request

Clarify if this transient, "Preop @ 100 F/hr," is associated with a transient that is already monitored by the Fatigue Monitoring Program. If not, justify why this transient does not need to be monitored by the Fatigue Monitoring Program.

Discussion: The applicant indicated that the request is clear. This draft request for additional information (DRAI) will be sent as a formal RAI.

DRAI 4.3-6.1

Background

The response to RAI 4.3-6, in letter dated February 29, 2012, discusses the environmental assisted fatigue evaluation for American Society of Mechanical Engineers (ASME) Code Class 1 valves. The applicant's results of the analyzed ASME Code Class 1 valves from this evaluation were also provided as part of the response.

Issue

LRA Sections 4.3.3 and A.4.3.3 were not updated to include the results and description of the evaluation of environmentally assisted fatigue for ASME Code Class 1 valves. Therefore, it is not clear whether these environmental assisted fatigue evaluations are included as part of the 10 CFR 54.21(c)(1)(iii) disposition and are part of the Fatigue Monitoring Program.

Request

Clarify if the analysis provided in response to RAI 4.3-6 are part of the Fatigue Monitoring Program and if so, revise LRA Sections 4.3.3 and A.4.3.3 to include information associated with the evaluations for ASME Code Class 1 valves and that the Fatigue Monitoring Program includes the management of environmentally assisted fatigue of ASME Code Class 1 valves. If not, justify that LRA Sections 4.3.3 and A.4.3.3 do not need to be updated to include information associated with the environmentally assisted fatigue evaluations for ASME Code. Class 1 valves and that they are also managed by the Fatigue Monitoring Program for environmentally assisted fatigue.

Discussion: The applicant indicated that the information requested by the staff appears to be in the LRA. The staff indicated that the information in the LRA and RAI response in letter dated February 28, 2012, was not clear. The staff revised a portion of the request of the (DRAI) for clarification. The revised first bullet of the RAI request that the staff plans to issue is:

Request

Confirm that the environmental assisted fatigue analyses for ASME Code Class I valves are managed by the Fatigue Monitoring program and are included in the disposition in accordance with 10 CFR 54.21 (c)(1)(iii) in LRA Section 4.3.3 and A.4.3.3.

DRAI 4.3-6.2

Background

Page 15 of 30 in response to RAI 4.3-6, in letter dated February 29, 2012, it states “[t]he [residual heat removal (RHR)] shutdown cooling system valves are exposed to transients associated with shutdown cooling operations that are not experienced by the RHR low-pressure coolant injection (LPCI) and core spray injection valves. The RHR LPCI and core spray injection valves are only exposed to transients that are also experienced by the RHR shutdown cooling return valves.”

Issue

It is not clear what transients are experienced by the RHR severe core damage (SDC) valves and by the RHR LPCI and core spray injection valves.

Request

Confirm that statements 1 and 2 are true:

- 1) RHR SDC valves experience: (transients associated with shutdown cooling operations) + (transients X, Y, Z...); and
- 2) RHR LPCI and core spray injection valves experience: (transients X, Y, Z...) and RHR LPCI and core spray injection valves DO NOT experience: (transients associated with shutdown cooling operations).

If both statements are not true, clarify what transients are experienced by the RHR SDC valves and by the RHR LPCI and core spray injection valves.

Discussion: The applicant indicated that the request is clear. This DRAI will be sent as a formal RAI.

DRAI 4.3-9.1

Background and issue

The response to RAI 4.3-9 (Part 1), provided by letter dated February 29, 2012, stated that the environmental fatigue analysis of the Core Spray Nozzle has been revised to address the changes introduced in the later analyses, including new loads. However, the response did not clarify what the new loads are and whether these new loads are input transients of the fatigue analysis that need to be monitored by the Fatigue Monitoring Program.

The response also stated that the revised environmental fatigue analysis evaluates the inside surface location at the clad/base metal interface directly below the limiting outside surface location. This location was selected to represent the wetted internal surface of the forging but takes no credit for the presence of the cladding. Since this location was not originally analyzed for metal fatigue, no ASME Code cumulative usage factor (CUF) value is reported. However, the response revised Table 4.3.3-1 for the ASME Code CUF value for Core Spray Nozzle (Forging) from 0.097 to 0.0016. The response does not explain what the value of 0.0016 represents since the response indicated that no ASME Code CUF value is reported for this location.

The staff also noted that for the core spray piping in Tables 4.3.3-2, the difference in F_{en} values between Limerick Generation Station (LGS), Units 1 and 2 is substantial. The staff recognized that different nodes are reported. However, the response did not explain the difference in F_{en} .

Request

- 1) Identify the new loads in the environmental assisted fatigue analyses of the Core Spray Nozzle.
- 2) Clarify whether these new loads are included in LRA Tables 4.3.1-1 and 4.3.1-2 and being monitored by the Fatigue Monitoring Program.
- 3) Explain the ASME Code CUF value of 0.0016 for Core Spray Nozzle (Forging) in Table 4.3.3-1.
- 4) Explain why the F_{en} values for the core spray piping are different between LGS, Units 1 and 2.

Discussion: The applicant clarified that the term “new loads” which was included in the response to RAI 4.3-9 was not in reference to loads that had not been included in the analysis for the Core Spray Nozzle. The applicant clarified that the information requested by the staff is presented in a response to another RAI. Therefore, the staff will remove reference to the term

“new loads” in the “background and issues” section of the DRAI and removed requests 1 and 2. The revised RAI that the staff plans to issue is:

DRAI 4.3-9.1

Background and issue

The response to RAI 4.3-9 (Part 1), provided by letter dated February 29, 2012, stated that the revised environmental fatigue analysis evaluates the inside surface location at the clad/base metal interface directly below the limiting outside surface location. This location was selected to represent the wetted internal surface of the forging but takes no credit for the presence of the cladding. Since this location was not originally analyzed for metal fatigue, no ASME Code cumulative usage factor (CUF) value is reported. However, the response revised Table 4.3.3-1 for the ASME Code CUF value for Core Spray Nozzle (Forging) from 0.097 to 0.0016. The response does not explain what the value of 0.0016 represents since the response indicated that no ASME Code CUF value is reported for this location.

The staff also noted that for the core spray piping in Tables 4.3.3-2, the difference in F_{en} values between Limerick Generation Station (LGS), Units 1 and 2 is substantial. The staff recognized that different nodes are reported. However, the response did not explain the difference in F_{en} .

Request

- 1) Explain the ASME Code CUF value of 0.0016 for Core Spray Nozzle (Forging) in Table 4.3.3-1.
- 2) Explain why the F_{en} values for the core spray piping are different between LGS, Units 1 and 2.

DRAI 4.3-10.1

Background and issue

The response to RAI 4.3-10, provided by letter dated February 29, 2012, provided the CUF values for a list of components that have been analyzed for fatigue. The response indicated that the steam dryer, steam dryer support brackets, and control rod guide tube are “exempt.” The response did not explain why these three components are exempted in the fatigue analysis.

Request

Clarify and justify why these three components are exempted. As part of the justification, if applicable, identify the provisions in the ASME Code Section III that allowed the exemption of the required fatigue analysis for these components.

Discussion: The applicant indicated that the request is clear. The applicant indicated that the justification for exempting the components was the ASME Code and was part of the Limerick Generating Station current licensing basis. Therefore, the staff will modify this DRAI to remove

the request to justify exempting of the subject components. This DRAI will be sent as a formal RAI.

DRAI 4.3-11.1

Background and issue

The response to RAI 4.3-11 (Part 1), provided by letter dated February 29, 2012, stated that the locations and CUF values shown in LRA Table 4.3.2-2 for LGS, Units 1 and 2, feedwater piping are applicable to both units. Stress analysis documentation shows that the locations and CUF values for the feedwater piping system are the same between the units because the piping configurations are essentially the same. However, the staff noted that the response did not explain why, for LGS Unit 1, the CUF value of 0.8011 at node 100 was used when UFSAR Table 3.6-8 indicates a CUF value of 0.3651 for node 100.

Request

1. Clarify whether the locations of node 100 in LRA Table 4.3.3-2 and UFSAR Table 3.6-8 are the same.
2. Clarify the discrepancy of the CUF value of node 100 between LRA Table 4.3.3-2 and UFSAR Table 3.6-8.

Discussion: The applicant indicated that the information requested by the staff is presented in a note accompanying UFSAR Table 3.6-8 which states that the information presented in UFSAR Table 3.6-8 for the information related to this DRAI was historical at the time LGS was licensed. The staff verified that the information presented in the UFSAR Table 3.6-8 was related to initial construction of the plant. Therefore, the staff will not issue this DRAI as a formal RAI.

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL CONDUCTED ON FEBRUARY
17, 2011.

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