LimerickNPEm Resource

From: Kuntz, Robert
Sent: Tuesday, May 01, 2012 2:16 PM
To: Anthony Z. Roisman; gfettus@nrdc.org
Cc: Smith, Maxwell; Kanatas, Catherine
Subject: FW: DRAFT Request for Information
Attachments: DRAFT TLAA follow-up RAIs.docx

From: Kuntz, Robert
Sent: Friday, April 13, 2012 9:18 AM
To: 'Christopher.Wilson2@exeloncorp.com'
Subject: DRAFT Request for Information

Chris,

Attached is a DRAFT request for information related to the Limerick license renewal application. If Exelon would like clarification on the attached DRAI let me know and I will set up a teleconference with the NRC staff.

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Subject: FW: DRAFT Request for Information
Sent Date: 5/1/2012 2:15:43 PM
Received Date: 5/1/2012 2:15:00 PM
From: Kuntz, Robert

Created By: Robert.Kuntz@nrc.gov

Recipients:
"Smith, Maxwell" <Maxwell.Smith@nrc.gov>
Tracking Status: None
"Kanatas, Catherine" <Catherine.Kanatas@nrc.gov>
Tracking Status: None
"Anthony Z. Roisman" <aroisman@nationallegalscholars.com>
Tracking Status: None
"gfettus@nrdc.org" <gfettus@nrdc.org>
Tracking Status: None

Post Office:

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MESSAGE	508	5/1/2012 2:15:00 PM
DRAFT TLAA follow-up RAIs.docx	35853	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

LIMERICK GENERATING STATION
LICENSE RENEWAL APPLICATION
REQUESTS FOR ADDITIONAL INFORMATION

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 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.

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 environmentally assisted fatigue 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.

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 RHR shutdown cooling system valves are exposed to transients associated with shutdown cooling operations that are not experienced by the RHR 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 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…)

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.

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 news 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 EAF 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.

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.

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.