



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

July 17, 2012

LICENSEE: Entergy Operations, Inc.
FACILITY: Grand Gulf Nuclear Station
SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON MARCH 19, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY OPERATIONS, INC., CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE GRAND GULF NUCLEAR STATION, LICENSE RENEWAL APPLICATION (TAC. NO. ME7493)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Entergy Operations, Inc., (Entergy) held a telephone conference call on March 19, 2012, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Grand Gulf Nuclear 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.

A handwritten signature in black ink, appearing to read "N. Ferrer", written over a horizontal line.

Nathaniel Ferrer, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No: 50-416

Enclosures:

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

cc w/encls: Listserv

TELEPHONE CONFERENCE CALL
GRAND GULF NUCLEAR STATION
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS

March 19, 2012

PARTICIPANTS

AFFILIATIONS

Nate Ferrer

NRC

John Klos

NRC

John Wise

NRC

Jeff Seiter

Entergy

Ted Ivy

Entergy

Andy Taylor

Entergy

REQUESTS FOR ADDITIONAL INFORMATION (SETS 3 AND 4)
GRAND GULF NUCLEAR STATION
LICENSE RENEWAL APPLICATION
March 19, 2012

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Entergy Operations, Inc., held a telephone conference call on March 19, 2012, to discuss and clarify the following requests for additional information (RAIs) concerning the license renewal application (LRA).

Draft RAI B.1.33-1

Background. The LRA Section B.1.33 states that the One-Time Inspection Program will be consistent with the GALL Report AMP XI.M32. The GALL Report AMP XI.M32 “detection of aging effects” program element identifies the inspection method associated with each aging effect, aging mechanism, and parameter monitored. LRA Section B.1.33 does not state for the aging effects of loss of material, cracking and fouling what inspection methods are aligned with each item.

Issue. It is not clear what inspection methods the One-Time Inspection Program will use for each aging effect or if the program will be consistent with the GALL Report AMP XI.M32.

Request. Justify why the inspection methods that will be used in conjunction with each aging effect are not included in the One-Time Inspection Program summary and why the program is consistent with GALL Report AMP XI.M32, or provide the necessary revisions to LRA.

Discussion: Based on the discussion between the staff and the applicant, the applicant stated that the question is clear. The staff will issue the question as a formal RAI.

Draft RAI B.1.35-1

Background. SRP-LR Section A.1.2.3.3, “Parameters Monitored or Inspected,” states that this program element should identify the aging effects the program manages and provide a link between the parameters monitored and how the monitoring will ensure adequate aging management. SRP-LR Section A.1.2.3.3 also states that parameters monitored or inspected should be capable of detecting the presence and extent of aging effects (e.g., wall thickness, detection and sizing of cracks).

LRA Section B.1.35 states that the Periodic Surveillance and Preventive Maintenance Program monitors and inspects parameters linked to the degradation of the particular structure or component intended functions.

Issue. The “parameters monitored or inspected” program element of the Periodic Surveillance and Preventive Maintenance Program does not have the necessary detail to link the parameters monitored to the aging effects.

Request. Justify why the “parameters monitored or inspected” program element of the Periodic Surveillance and Preventive Maintenance Program does not include the specific parameters monitored (e.g., wall thickness wastage, surface condition, elastomer hardening and cracking) and their related aging effects for each of the structure and component groupings managed by the program, or revise LRA Section B.1.35 to include the information.

Discussion: The staff determined that clarification was needed on the question and will reword the question to include a discussion of the applicant's use of the Periodic Surveillance and Preventive Maintenance Program as a substitute for the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program. The staff will add the following paragraph to the background section of the question:

The "parameters monitored or inspected" program element of GALL Report AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components," (for which the Periodic Surveillance and Preventive Maintenance program is used as a substitute) recommends that visual inspection parameters for loss of material of metallic components include corrosion and material parameter wastage, leakage from or onto internal surfaces, and worn, flaking, or oxide-coated surfaces. GALL Report AMP XI.M38 also recommends that inspection parameters in polymers include surface cracking, crazing, scuffing, dimensional change, discoloration, and hardening as evidence by a loss of suppleness (when appropriate).

Additionally, the staff will remove the wall thickness modifier in the example within the request section. The staff will issue the revised question as a formal RAI.

Draft RAI B.1.35-4

Background. SRP-LR Section A.1.2.3.6, "Acceptance Criteria," states that this program element should describe the qualitative or quantitative acceptance criteria and those criteria should ensure that the structure and component intended functions are maintained consistent with all current licensing basis (CLB) design conditions during the period of extended operation.

LRA Section B.1.35 states that acceptance criteria are defined in specific inspection procedures and that those procedures verify the absence of aging effects or compare applicable parameters to limits established by plant design basis. The staff noted that procedures associated with the program have not yet been created.

Issue. The "acceptance criteria" program element of the Periodic Surveillance and Preventive Maintenance Program does not adequately define the acceptance criteria. LRA Section B.1.35 states that acceptance criteria are defined in inspection procedures; however, those procedures have not yet been created.

Request. Justify why the "acceptance criteria" program element of the Periodic Surveillance and Preventive Maintenance Program do not include specific acceptance criteria (e.g., pipe wall remaining above minimum design wall thickness, absence of cracking) for each of the structure and component groupings managed by the program, or revise LRA Section B.1.35 to include this information.

Discussion: The staff determined that clarification was needed on the question and will reword the question to include a discussion of the applicant's use of the Periodic Surveillance and Preventive Maintenance Program as a substitute for the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program. The staff will add the following paragraph to the background section of the question:

The applicant uses the Periodic Surveillance and Preventive Maintenance Program is used as a substitute for GALL Report AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components," and GALL Report AMP XI.M20, "Open-Cycle Cooling Water System." The "parameters monitored or inspected" program element of GALL Report AMP XI.M38 recommends that visual acceptance criteria for metallic surfaces include any indication of relevant degradation, such as discoloration of otherwise clean, shining stainless steel surfaces. GALL Report AMP XI.M38 also recommends that acceptance criteria for flexible polymers include verification of like-new condition (e.g., lack of cracking and the hardness, flexibility, physical dimensions, and color of the material are unchanged). GALL Report AMP XI.M20 recommends that acceptance criteria for loss of material include minimum required wall thickness.

Additionally, the staff will add "any indication of relevant degradation" as an example within the request section. The staff will issue the revised question as a formal RAI.

Daft RAI B.1.26-1

Background. The program description of GALL Report AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components," states that the program includes internal inspections of metallic ducting. The program description also states that the program includes components exposed to air-indoor uncontrolled, air outdoor, condensation and water systems other than fire water, open-cycle cooling water, and closed treated water system.

The "detection of aging effects" program element of GALL Report AMP XI.M38 states that the program is opportunistic, applied when surfaces becomes accessible during the performance of periodic surveillances or during maintenance activities or scheduled outages. The "detection of aging effects" program element also states that a sample size for manipulation of flexible polymeric components be at least 10 percent of the available surface area.

During the staff's audit of the applicant's Internal Surfaces in Miscellaneous Piping and Ducting Components Program, the staff was not able to determine if this program is consistent with the aspects of GALL Report AMP XI.M38 discussed above.

Issue. The LRA and the onsite documentation did not have sufficient detail for the staff to determine if the applicant's Internal Surfaces in Miscellaneous Piping and Ducting Components Program is consistent with GALL Report AMP XI.M38.

Request. Justify why the Internal Surfaces in Miscellaneous Piping and Ducting Components Program and Updated Final Safety Analysis Report (UFSAR) supplement do not include the following:

- Information on metallic ducting, if applicable
- The environments managed within the program
- Information on if inspections are opportunistic and, if so, when surfaces are anticipated to become accessible for inspection
- The sample size for manipulation of flexible polymers

Alternatively, revise LRA Sections A.1.26 and B1.26 to include the information.

Discussion: Based on the discussion between the staff and the applicant, the applicant stated that the question is clear. The staff will issue the question as a formal RAI.

Draft RAI B.1.26-5

Background. SRP-LR Section A.1.2.3.3, "Parameters Monitored or Inspected," states that this program element should identify the aging effects the program manages and provide a link between the parameters monitored and how the monitoring will ensure adequate aging management. SRP LR Section A.1.2.3.3 also states that parameters monitored or inspected should be capable of detecting the presence and extent of aging effects.

The "parameters monitored or inspected" program element of GALL Report AMP XI.M38 states that the inspection parameters associated with metallic components are surface discontinuities, corrosion and material parameters wastage (loss of material), leakage from or onto internal surfaces (loss of material), and worn, flaking, or oxide-coated surfaces (loss of material). This program element also states that inspection parameters for polymers are surface cracking, crazing, scuffing, and dimensional change (e.g., "ballooning" and "necking"), discoloration, exposure of internal reinforcement for reinforced elastomers, and hardening as evidenced by a loss of suppleness during manipulation.

LRA Section B.1.26 does not identify any parameters monitored or inspected.

Issue. The "parameters monitored or inspected" program element of Internal Surfaces in Miscellaneous Piping and Ducting Components Program does not have sufficient detail on what inspection parameters will be in this program for metallic components and for polymers; therefore, the staff cannot determine if the program is consistent with GALL Report AMP XI.M38.

Request. Justify why the "parameters monitored or inspected" program element of Internal Surfaces in Miscellaneous Piping and Ducting Components Program does not include the specific parameters monitored and their related aging effects for this program's metallic and polymeric components, or revise the LRA to include this information.

Discussion: Based on the discussion between the staff and the applicant, the applicant stated that the question is clear. The staff will issue the question as a formal RAI.

Draft RAI B.1.26-6

Background. SRP-LR Section A.1.2.3.6, "Acceptance Criteria," states that this program element should describe the qualitative or quantitative acceptance criteria and those criteria should ensure that the structure and component intended functions are maintained consistent with all CLB design conditions during the period of extended operation.

The "acceptance criteria" program element of GALL Report AMP XI.M38 states the acceptance criteria for:

- stainless steel: clean surfaces, shiny with no discoloration,
- metals: any abnormal surface,
- flexible polymers: a uniform surface texture and color with no cracks, and no unanticipated dimensional change, no abnormal surface with the material in an "as new" condition with respect to hardness, flexibility, physical dimensions, and color and

- rigid polymers: no erosion, cracking, crazing, checking, and chalks.

LRA Section B.1.26 does not identify the acceptance criteria for the components within this program.

Issue. The “acceptance criteria” program element of Internal Surfaces in Miscellaneous Piping and Ducting Components Program does not have sufficient detail on the acceptance criteria that will be in this program for stainless steel, metals, flexible polymers, and rigid polymers, and thus the staff cannot determine if the program is consistent with GALL Report AMP XI.M38.

Request. Justify why the “acceptance criteria” program element of the Internal Surfaces in Miscellaneous Piping and Ducting Components Program does not include specific acceptance criteria for the program’s components, or revise the LRA to include this information.

Discussion: Based on the discussion between the staff and the applicant, the applicant stated that the question is clear. The staff will issue the question as a formal RAI.

SUBJECT: Summary of Telephone Conference Call conducted on March 19, 2012

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