Fermi2LRANPEm Resource

From: Wentzel, Michael
Sent: Monday, January 26, 2015 6:37 AM
To: Randall D Westmoreland (westmorelandr@dteenergy.com)
Subject: Draft Phone Call Summary
Attachments: 012315, Summary of Telephone Conference Call Between NRC and DTE Electric Company Concerning Responses to RAIs Pertaining to the Fermi 2 LRA SAMA Review.docx

Randy,

Attached is a draft phone call summary for our call last Friday. Please let me know if you have any comments.

Thanks,
Mike

Michael Wentzel
Project Manager
NRR/DLR/RPB2
(301) 415-6459
michael.wentzel@nrc.gov

Hearing Identifier: Fermi2_LR_NonPublic
Email Number: 42

Mail Envelope Properties (Michael.Wentzel@nrc.gov20150126063600)

Subject: Draft Phone Call Summary
Sent Date: 1/26/2015 6:36:42 AM
Received Date: 1/26/2015 6:36:00 AM
From: Wentzel, Michael

Created By: Michael.Wentzel@nrc.gov

Recipients:
"Randall D Westmoreland (westmorelandr@dteenergy.com)" <westmorelandr@dteenergy.com>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	302	1/26/2015 6:36:00 AM
012315, Summary of Telephone Conference Call Between NRC and DTE Electric Company Concerning Responses to RAIs Pertaining to the Fermi 2 LRA SAMA Review.docx		80897

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

UNITED STATES
NUCLEARREGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

LICENSEE: DTE Electric Company

FACILITY: Fermi 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON JANUARY 23, 2015 BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND DTE ELECTRIC COMPANY CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE SEVERE ACCIDENT MITIGATION ALTERNATIVES REVIEW OF THE FERMI 2LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) and representatives of DTE Electric Companyheld a telephone conference call on January 23, 2015, to discuss and clarify the NRC staff's requests for additional information (RAIs) concerning the Fermi 2 license renewal application severe accident mitigation alternatives review. The telephone conference call was useful in identifying areas where further information was necessary.

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.

Michael Wentzel
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Number:50-341
Enclosures:
As stated

cc w/encls: See next page

LICENSEE: DTE Electric Company

FACILITY: Fermi 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON JANUARY 23, 2015 BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND DTE ELECTRIC COMPANY CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE SEVERE ACCIDENT MITIGATION ALTERNATIVES REVIEW OF THE FERMI 2LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) and representatives of DTE Electric Companyheld a telephone conference call on January 23, 2015, to discuss and clarify the NRC staff's requests for additional information (RAIs) concerning the Fermi 2 license renewal application severe accident mitigation alternatives review. The telephone conference call was useful in identifying areas where further information was necessary.

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.

Michael Wentzel
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Number:50-341
Enclosures:
As stated

cc w/encls: See next page
DISTRIBUTION: See next page

ADAMS Accession No.:

OFFICE	LA:DLR	PM:RPB2:DLR	BC:RPB2:DLR	PM:RPB2:DLR
NAME		M Wentzel	B Wittick	M Wentzel
DATE	/ /	/ /	/ /	/ /

OFFICIAL RECORD COPY

TELEPHONE CONFERENCE CALL
FERMI 2LICENSE RENEWAL APPLICATION
SEVERE ACCIDENT MITIGATION ALTERNATIVES

LIST OF PARTICIPANTS
JANUARY 23, 2015

PARTICIPANTS	AFFILIATIONS
Jerry Dozier	U.S. Nuclear Regulatory Commission (NRC)
Michael Wentzel	NRC
Roland Benke	Center for Nuclear Waste Regulatory
Bob Schmidt	CNWRA
Michael Koenemann	DTE Electric Company (DTE)
Michael Lake	DTE
Kevin Lynn	DTE
Randall Westmoreland	DTE
Chad Kramer	Enercon
Brian Norman	Enercon
Gary Smith	Enercon
Joe Lavelline	Maracor/Enercon
Alex Duvall	ERIN Engineering
Grant Teagarden	ERIN Engineering

REQUESTS FOR ADDITIONAL INFORMATION
FERMI 2 LICENSE RENEWAL APPLICATION
SEVERE ACCIDENT MITIGATION ALTERNATIVES
JANUARY 23, 2015

The U.S. Nuclear Regulatory Commission (NRC) and representatives of DTE Electric Company(DTE) held a telephone conference call on January 23, 2015, to discuss and clarify the following requests for additional information (RAIs) concerning the Fermi 2 license renewal application severe accident mitigation alternatives (SAMA) review.

Regarding Response to RAI 1.c.iii

What is the value for the phenomenological failure probability of the common cause failure of all four combustion turbine generators in the event of a "weather centered" loss of the 345kV (Division 2) Switchyard?

Discussion: *DTE indicated that the question is clear.*

Regarding Response to RAI 2.g.iii

The RAI response provided a wealth of information supporting the selection of representative sequences in terms of the determination of the base case risk, however, the impact of representative selection on the calculation of delta risk for a SAMA is not specifically addressed. Furthermore, the information provided indicates that the specific example in the RAI will not adversely impact the selection of cost-beneficial SAMAs; however, it does raise concern about the impact of combining Class IIA sequences with Class IV sequences. As indicated in the RAI response, separating the Class IIA sequences from the Class IV sequences in the H/E release category results in a 15% increase in dose risk and a 0.6% increase in OECR in the total risk. Table 2.g-4 indicates the revised Class II contribution is 2.69 times the person-rem/yr and 1.08 times the OECR contributions when they are included in the H/E base case release category. Thus, the staff believes, the benefit of any SAMA that significantly reduces the risk of Class IIA (loss of containment heat removal) sequences will be underestimated. Please address the impact of combining Class IIA sequences with Class IV sequences and clarify the impact of representative selection on the calculation of delta risk for a SAMA.

Discussion: *DTE indicated that the question is clear.*

Regarding Response to RAI 2.e

The SAMA analysis release category frequency is based upon a truncation of 1E-12/yr which results in undercounting the Class II frequency by 3.14E-09/yr compared to the Class II frequency from the Level 1 quantification. This is stated to have been resolved by lowering the truncation to 1E-14/yr. It is stated that this 3.14E-09/yr difference was added to the PRA documentation release category (RC) medium/early (M/E) frequency but not that used in the SAMA analysis. What was the basis for assigning this undercounting due to truncation to RC M/E and not other RC's such as high/early (H/E)? Was it based on the results of the Level 2 quantification at the lower truncation?

Discussion: *Based on the discussion with DTE, the NRC staff modified the draft request, as follows, to make clear the information that the NRC staff is requesting:*
The SAMA analysis release category frequency is based upon a truncation of 1E-12/yr which results in undercounting the Class II frequency by 3.14E-09/yr compared to the Class II frequency from the Level 1 quantification. This is stated to have been resolved by lowering the truncation to 1E-14/yr. It is stated that this 3.14E-09/yr difference was added to the PRA documentation release category (RC) medium/early (M/E) frequency but not that used in the SAMA analysis. Discuss the basis for assigning this undercounting due to truncation to RC M/E and not other RC's such as high/early (H/E) and the impact of not including these truncated out Class II cutsets in the evaluation of the benefit for the SAMAs.

Regarding Response to RAI 4.c

The economic multiplier stated in the RAI response is 2.1384 which is different from the value of 1.2964 stated on page D-96 of the environmental report (ER). The RAI response does not mention any reason for the ER value to be different from the original value. Please clarify which is the correct value for the economic multiplier value(s) used in the assessment of cost beneficial SAMAs.

Discussion: *DTE indicated that the question is clear.*

Regarding Response to RAIs 5.a.ii, 5.a.vi, 5.a.vii, 6.h and 7.a

The response to these RAIs provides the result of new cost benefit analyses. Was this based on doing the complete analysis similar to that for the ER evaluation involving determining the new release category frequencies and resulting cost risks, or were some assumptions made? Some of the results do not appear to be consistent with those given in Table D.2-1. Are these results conservative?

Discussion: *DTE indicated that the question is clear.*

Regarding Response to RAI 6.c

While Fermi 2 may not have the same vulnerability that prompted SAMA 023 to develop procedures to repair or replace failed 4 kV breakers, this SAMA was cited to mitigate a number of important Fermi events in Table D.1-2 and screening it out is not considered appropriate. If the transfers cited in the source of this SAMA are not required, why were they cited in the evaluation of the benefit of SAMA 023?

Discussion: *Based on the discussion with DTE, the NRC staff modified the draft request, as follows, to make clear the information that the NRC staff is requesting:*

While Fermi 2 may not have the same vulnerability that prompted SAMA 023 to develop procedures to repair or replace failed 4 kV breakers, this SAMA was cited to mitigate a number of important Fermi events in Table D.1-2 and screening it out is not considered appropriate. Evaluate the benefit of a procedure to develop or replace failed 4 kV breakers where ever it may be of a benefit at Fermi 2.

Regarding Response to RAI 6.e

The response indicates that assuming a 15% reduction in main steam isolation valves (MSIVs) failure to close and safety relief valves (SRVs) failure to open has essentially no impact (~<0.01) on risk. On the other hand, operator failures to depressurize have risk reduction worths of 1.10, 1.05, and 1.03. These are equivalent to SRVs failure to open and would indicate that the above reduction in SRV failure to open would lead to a 2% reduction in CDF. Please clarify this disparity.

Discussion: *Based on the discussion with DTE, the NRC staff modified the draft request, as follows, to make clear the information that the NRC staff is requesting:*

The response indicates that assuming a 15% reduction in main steam isolation valves (MSIVs) failure to close and safety relief valves (SRVs) failure to open has essentially no impact (~<0.01) on risk. On the other hand, operator failures to depressurize have risk reduction worths of 1.10, 1.05, and 1.03. These are equivalent to SRVs failure to open and would indicate that the above reduction in SRV failure to open would lead to a 2% reduction in CDF. Please discuss the MSIV and SRV hardware failure modeling characteristics included in the Fermi 2 PRA that lead to this very small risk impact.

SUBJECT:Summary of Telephone Conference Call conducted on January 23, 2015

DISTRIBUTION:

HARD COPY:

DLR RF

E-MAIL:
PUBLIC
RidsNrrDlr Resource
RidsNrrDlrRpb1 Resource
RidsNrrDlrRpb2 Resource
RidsNrrDlrRerb Resource
RidsNrrDlrRarb Resource
RidsNrrDlrRasb Resource
RidsNrrDlrRsrg Resource
RidsNrrPMFermi Resource

DMeléndez-Colón
MWentzel
YDiaz-Sanabria
BWittick
JDozier
UShoop
BHarris, OGC
MKunowski, RIII
BKemker, RIII
PSmagacz, RIII
VMitlyng, RIII
PChandrathil, RIII
HLogaras, RIII
ABarker, RIII