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Richard L. Anderson
ANO Site Vice President

10 CFR 50.90

2CAN111801

November 16, 2018

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Supplemental to the Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425) Arkansas Nuclear One, Unit 2
Docket No. 50-368
License No. NPF-6

Dear Sir or Madam:

By letter dated February 6, 2018 (Reference 1), as supplemented by letter dated March 26 (Reference 2), 2018, Entergy Operations, Inc. (Entergy), requested NRC approval of a proposed change to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs). The proposed amendment would modify ANO-2 TSs by relocating specific surveillance frequencies to a licensee-controlled program with the implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specification Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies," by adopting Technical Specification Task Force (TSTF)-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control - Risk Informed Technical Specification Task Force (RITSTF) Initiative 5."

By email dated July 18, 2018, the NRC informed Entergy that additional information was needed to support the Staff's continued review of the application. A clarification call between the NRC and the licensee was held on August 2, 2018. The final request for additional information (RAI) was received via email on August 2, 2018 (Reference 3). Entergy responded with the requested information in letter dated September 7, 2018 (Reference 4).

Three of the Entergy responses included in the Reference 4 letter involved activities which are necessary to complete prior to TSTF-425 implementation. These activities are part of the ongoing ANO-2 probabilistic risk assessment (PRA) model update from the current Revision 5 to Revision 6. Because the PRA model revision may not be complete prior to potential NRC approval of TSTF-425 for ANO-2, Entergy is proposing that a condition be added to the ANO-2 Operating License (OL) which will prohibit modifying current surveillance frequencies in accordance with TSTF-425 until the required changes have been incorporated into the PRA model.

The list of activities yet to be completed and the proposed condition to the ANO-2 OL are discussed in the attached enclosure. No new regulatory commitments are included in this amendment request.

In accordance with 10 CFR 50.91, Entergy is notifying the State of Arkansas of this amendment request by transmitting a copy of this letter and enclosure to the designated State Official.

If there are any questions or if additional information is needed, please contact Stephenie Pyle at 479-858-4704.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on November 16, 2018.

Sincerely,

ORIGINAL SIGNED BY RICHARD L. ANDERSON

RLA/dbb

Enclosure: Supplemental Information – Adoption of TSTF-425

- REFERENCES:
1. Entergy letter dated February 6, 2018, *Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, 2CAN021802 (ML18038B354)
 2. Entergy letter dated March 26, 2018, *Supplemental Information Supporting the Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, (2CAN031803) (ML18085A816)
 3. NRC email dated August 2, 2018, *Final RAI RE: License Amendment Request to Adopt TSTF-425, Revision 3* (EPID L-2018-LLA-0047) (2CNA081801) (ML18218A501)
 4. Entergy letter dated September 7, 2018, *Response to Request for Additional Information Related to the Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, (2CAN091801) (ML18250A282)

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Enclosure to

2CAN111801

Supplemental Information

Adoption of TSTF-425

SUPPLEMENTAL INFORMATION
ADOPTION OF TSTF-425

By letter dated February 6, 2018 (Reference 1), as supplemented by letter dated March 26, 2018 (Reference 2), Entergy Operations, Inc. (Entergy), requested NRC approval of a proposed change to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs). The proposed amendment would modify ANO-2 TSs by relocating specific surveillance frequencies to a licensee-controlled program with the implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specification Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies," by adopting Technical Specification Task Force (TSTF)-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control - Risk Informed Technical Specification Task Force (RITSTF) Initiative 5."

By email dated July 18, 2018, the NRC informed Entergy that additional information was needed to support the Staff's continued review of the application. The final request for additional information (RAI) was received via email on August 2, 2018 (Reference 3). Entergy responded with the requested information in letter dated September 7, 2018 (Reference 4).

Three of the Entergy responses included in the Reference 4 letter involved activities which are necessary to complete prior to TSTF-425 implementation. These activities are part of the ongoing ANO-2 probabilistic risk assessment (PRA) model update from the current Revision 5 to Revision 6. Because the PRA model revision may not be complete prior to potential NRC approval of TSTF-425 for ANO-2, Entergy proposes that a condition be added to the ANO-2 Operating License (OL) which prohibits modifying current surveillance frequencies in accordance with TSTF-425 until the required changes have been incorporated into the PRA model. Until the proposed OL condition is met, relocated surveillance frequencies will remain equivalent to the frequencies which existed at the time of relocation from the TSs.

The following are excerpts from the aforementioned Reference 4 Entergy request for additional information (RAI) response stating activities that have not yet been completed:

Table 1

| Associated RAI Question | Applicable Response Excerpt |
|--------------------------------|--|
| PRA-RAI-01 | The Revision 6 probabilistic risk assessment (PRA) documentation (currently in development to update the model of record) for each of the systems modeled for ANO-2 includes a new subsection to address the potential degraded environments applicable to that system (such an assessment was not previously included in the system analysis documentation but determined from walkdown notes). |

| Associated RAI Question | Applicable Response Excerpt |
|-------------------------|--|
| PRA-RAI-02b | <p>The update to the MOR [model of record] for internal flooding is pending completion of the update to the internal events PRA model update which is expected fourth quarter 2018.</p> <p>As mentioned above, the human reliability analysis (HRA) for internal flooding is not yet incorporated into the MOR, but will be incorporated after the internal events PRA model is updated in the fourth quarter 2018. Preliminary analyses show only very minor changes in the HEP values which are expected to have a negligible impact on the overall internal flooding results.</p> |
| PRA-RAI-02c | <p>As mentioned above, the updated internal flooding PRA is not yet incorporated into the MOR, but will be incorporated after the internal events PRA model is updated in the fourth quarter 2018. The internal flooding PRA update logic model will be constructed using the internal events logic model as the basis. The internal flooding PA model will use the same method for seeding HEP values as the internal events PRA model, thereby ensuring the appropriate seeding values are used.</p> |

In light of the above, Entergy proposes an OL condition similar to that proposed by the DC Cook Nuclear Facility associated with that facilities adoption of TSTF-425 (Reference 5):

The licensee shall implement the items listed in Table 2 of the enclosure to Entergy letter 2CAN111801, dated November 16, 2018, prior to implementation of the Surveillance Frequency Control Program.

The following Table 2 items summarize those activities described in Table 1 above that must be completed in order to comply with the proposed OL condition:

Table 2

| |
|---|
| <p>The Revision 6 PRA model documentation for ANO-2 shall include a new subsection to address the potential degraded environments applicable to each of the systems modeled.</p> |
| <p>The internal flooding MOR update supporting Revision 6 of the ANO-2 PRA model shall be completed.</p> |
| <p>The human error probabilities (HEP) values for internal flooding shall be incorporated into the human reliability analysis (HRA) supporting the internal flooding update associated with Revision 6 of the ANO-2 PRA model.</p> |
| <p>The internal flooding PRA update logic model shall be constructed using the internal events logic model as the basis. The internal flooding PRA model shall use the same method for seeding HEP values as the internal events PRA model, thereby ensuring the appropriate seeding values are used.</p> |

In addition to the above, the response to PRA-RAI-03 included in the Reference 4 Entergy letter made reference to NUREG 1855, "Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decision Making," but did not state which revision of the NUREG was being employed in the maintenance of the ANO-2 PRA model. The subject RAI response was with reference to NUREG 1855, Revision 1.

Attachment 1 of this enclosure provides a markup of the current ANO-2 OL, containing the proposed condition. Attachment 2 of this enclosure provides the re-typed version of the affected OL page.

REFERENCES:

1. Entergy letter dated February 6, 2018, *Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, 2CAN021802 (ML18038B354)
2. Entergy letter dated March 26, 2018, *Supplemental Information Supporting the Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, (2CAN031803) (ML18085A816)
3. NRC email dated August 2, 2018, *Final RAI RE: License Amendment Request to Adopt TSTF-425, Revision 3* (EPID L-2018-LLA-0047) (2CNA081801) (ML18218A501)
4. Entergy letter dated September 7, 2018, *Response to Request for Additional Information Related to the Application for Technical Specification Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program (TSTF-425)*, Arkansas Nuclear One, Unit 2, (2CAN091801) (ML18250A282)
5. Indiana Michigan Power letter dated September 9, 2016, *Follow-Up Response to Request for Additional Information Regarding the License Amendment Request to Adopt TSTF-425, Relocate Surveillance Frequencies Program to Licensee Control – Risk Informed Technical Specification Task Force (RITSTF) Initiative 5B*, Donald C. Cook Nuclear Plant Unit 1 and Unit 2 (AEP-NRC-2016-69) (ML16258A145)

ATTACHMENTS:

1. Proposed Operating License Changes (markup)
2. Revised Operating License Page

ENCLOSURE ATTACHMENT 1 to

2CAN111801

PROPOSED OPERATING LICENSE CHANGES (MARK-UP)

Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the Entergy Operations, Inc. fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications," Attachment 2, of Entergy Operations, Inc. letter 2CAN101601, dated October 27, 2016, prior to startup from the second refueling outage following issuance of the Safety Evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of the modifications.
3. The licensee shall complete the implementation items as listed in Table S-2, "Implementation Items," Attachment, of Entergy Operations, Inc. letter 2CAN091402, dated September 24, 2014, within six months after issuance of the Safety Evaluation.

(c) Less Than Four Reactor Coolant Pump Operation

EOI shall not operate the reactor in operational Modes 1 and 2 with fewer than four reactor coolant pumps in operation, except as allowed by Special Test Exception 3.10.3 of the facility Technical Specifications.

~~2.C.(3)(d)~~ Deleted per Amendment 24, 6/19/81. Surveillance Frequency Control Program

The licensee shall implement the items listed in Table 2 of the enclosure to Entergy letter 2CAN111801, dated November 16, 2018, prior to implementation of the Surveillance Frequency Control Program.

2.C.(3)(e) Deleted per Amendment 300, 2/18/15.

2.C.(3)(f) Deleted per Amendment 24, 6/19/81.

2.C.(3)(g) Deleted per Amendment 93, 4/25/89.

2.C.(3)(h) Deleted per Amendment 29, (3/4/82) and its correction letter, (3/15/82).

(i) Containment Radiation Monitor

AP&L shall, prior to July 31, 1980 submit for Commission review and approval documentation which establishes the adequacy of the qualifications of the containment radiation monitors located inside the containment and shall complete the installation and testing of these instruments to demonstrate that they meet the operability requirements of Technical Specification No. 3.3.3.6.

2.C.(3)(j) Deleted per Amendment 7, 12/1/78.

2.C.(3)(k) Deleted per Amendment 12, 6/12/79 and Amendment 31, 5/12/82.

ENCLOSURE ATTACHMENT 2 to

2CAN111801

REVISED OPERATING LICENSE PAGE

Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the Entergy Operations, Inc. fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications," Attachment 2, of Entergy Operations, Inc. letter 2CAN101601, dated October 27, 2016, prior to startup from the second refueling outage following issuance of the Safety Evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of the modifications.
3. The licensee shall complete the implementation items as listed in Table S-2, "Implementation Items," Attachment, of Entergy Operations, Inc. letter 2CAN091402, dated September 24, 2014, within six months after issuance of the Safety Evaluation.

(c) Less Than Four Reactor Coolant Pump Operation

EOI shall not operate the reactor in operational Modes 1 and 2 with fewer than four reactor coolant pumps in operation, except as allowed by Special Test Exception 3.10.3 of the facility Technical Specifications.

(d) Surveillance Frequency Control Program

The licensee shall implement the items listed in Table 2 of the enclosure to Entergy letter 2CAN111801, dated November 16, 2018, prior to implementation of the Surveillance Frequency Control Program.

2.C.(3)(e) Deleted per Amendment 300, 2/18/15.

2.C.(3)(f) Deleted per Amendment 24, 6/19/81.

2.C.(3)(g) Deleted per Amendment 93, 4/25/89.

2.C.(3)(h) Deleted per Amendment 29, (3/4/82) and its correction letter, (3/15/82).

(i) Containment Radiation Monitor

AP&L shall, prior to July 31, 1980 submit for Commission review and approval documentation which establishes the adequacy of the qualifications of the containment radiation monitors located inside the containment and shall complete the installation and testing of these instruments to demonstrate that they meet the operability requirements of Technical Specification No. 3.3.3.6.

2.C.(3)(j) Deleted per Amendment 7, 12/1/78.

2.C.(3)(k) Deleted per Amendment 12, 6/12/79 and Amendment 31, 5/12/82.