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10 CFR 50.90

OCAN091901

September 5, 2019

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

SUBJECT: License Amendment Request
Change in Implementation Date for Amendments 263 and 314

Arkansas Nuclear One, Unit 1 and Unit 2
NRC Docket Nos. 50-313, 50-368, and 72-13
Renewed Facility Operating License Nos. DPR-51 and NPF-6

Reference: NRC letter *"Arkansas Nuclear One, Units 1 and 2 – Issuance of Amendments RE: Revision to the Emergency Action Level Scheme (EPID L-2018-LLA-0082),"* January 17, 2019 (ML18337A247)

In the referenced letter, the NRC approved Amendment Nos. 263 and 314 to Renewed Facility Operating License Nos. DPR-51 and NPF-6, for Arkansas Nuclear One (ANO), Units 1 and 2, respectively. The amendments approved an update to the ANO Emergency Plan to adopt the Nuclear Energy Institute (NEI) revised Emergency Action Level scheme described in NEI 99-01, Revision 6, *"Development of Emergency Action Levels for Non-Passive Reactors."* In accordance with the referenced letter, the revised ANO Emergency Plan is required to be implemented no later than October 30, 2019.

Entergy Operations, Inc. (Entergy), is requesting an amendment to extend the aforementioned ANO Emergency Plan implementation date to January 14, 2020. This extension is necessary due to unforeseen circumstances which are detailed in the enclosure. The proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

Approval of the proposed amendment is requested by October 30, 2019.

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 Tim Arnold, Manager, Regulatory Assurance, at 479-858-7826.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on September 5, 2019.

Sincerely,

ORIGINAL SIGNED BY RON GASTON

Ron Gaston

RWG/dbb

Enclosure: Evaluation of the Proposed Change

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Arkansas Nuclear One
NRC Project Manager – Arkansas Nuclear One
Designated Arkansas State Official

Enclosure to

OCAN091901

Evaluation of the Proposed Change

EVALUATION OF THE PROPOSED CHANGE

1.0 SUMMARY DESCRIPTION

By letter dated January 17, 2019 (Reference 1), the NRC approved Amendment Nos. 263 and 314 to Renewed Facility Operating License Nos. DPR-51 and NPF-6, for Arkansas Nuclear One (ANO), Units 1 and 2 (ANO-1 and ANO-2), respectively. The amendments approved an update to the ANO Emergency Plan to adopt the Nuclear Energy Institute (NEI) revised Emergency Action Level (EAL) scheme described in NEI 99-01, Revision 6, "*Development of Emergency Action Levels for Non-Passive Reactors.*" In accordance with the referenced letter, the revised ANO Emergency Plan is required to be implemented no later than October 30, 2019.

Entergy Operations, Inc. (Entergy), is requesting an amendment to extend the aforementioned ANO Emergency Plan implementation date to January 14, 2020.

2.0 DETAILED DESCRIPTION

2.1 Background

Entergy had planned to implement the revised ANO Emergency Plan revision by October 1, 2019, well in advance of the NRC-required implementation date. However, ANO-2 recently experienced an approximate 65-day forced outage related to the replacement of a reactor coolant pump motor. This unexpected and extended outage required additional personnel resources that significantly delayed completion of necessary preparatory items initiated to support implementation of the revised ANO Emergency Plan.

2.2 Current Requirement

As stated in the Reference 1 NRC letter, the revised ANO Emergency Plan is required to be implemented no later than October 30, 2019.

2.3 Reason for the Proposed Change

The unexpected and extended ANO-2 forced outage required additional personnel resources that significantly inhibited completion of personnel training necessary to support implementation of the revised ANO Emergency Plan. The outage resource needs also delayed necessary changes to related procedures.

The Operation's department provides a key role in executing the ANO Emergency Plan. Because this department includes five on-shift operating crews and a six-week training cycle (one week for Operations Training personnel), completion of all desired training prior to commencement of the upcoming ANO-1 refueling outage is not practical based on the start date for the next training cycle. Three weeks of the next training cycle is scheduled to complete before the early October 2019 ANO-1 refueling outage start date, with the remaining two training weeks occurring after the outage. Attempting to implement a revised ANO Emergency Plan prior to the current required date of October 30, 2019 would require training to continue into the ANO-1 outage which presents both predictable and unforeseen human factors concerns due to the extensive number of ongoing activities associated with a refueling outage. In

addition, the upcoming ANO-1 refueling outage is scheduled to end on or about November 15, 2019 with the remaining portion of the training cycle ending in about mid-December 2019 (accounting for the Thanksgiving holiday week).

2.4 Description of the Proposed Change

Based on the information provided in Section 2.3 above, Entergy proposes to extend the implementation date of the ANO Emergency Plan, which is based on NEI 99-01, Revision 6, to January 14, 2020.

3.0 TECHNICAL EVALUATION

Following NRC approval, Entergy implemented an upgrade to the ANO Emergency Plan based on the guidance of NEI 99-01, Revision 5, in 2012. As stated in Section 1.0 above, the NRC subsequently approved revising the ANO Emergency Plan to be based on the guidance contained in NEI 99-01, Revision 6, on January 17, 2019 (Reference 1). The revised ANO Emergency Plan is currently required to be implemented on or before October 30, 2019.

As discussed previously, unforeseen circumstances have caused a delay in the implementation process, which includes necessary training, procedure changes, and other administrative requirements. Delays in the implementation process caused by the aforementioned ANO-2 forced outage will prevent completion of all desired preparations by the October 1, 2019 implementation date internally imposed by Entergy. The basis of the Entergy-established October 1, 2019 implementation date was to ensure all preparatory activities were completed prior to the ANO-1 refueling outage, currently scheduled to begin the first week of October 2019.

Execution of the ANO Emergency Plan involves a significant number of station personnel, many of which must complete training with respect to the new ANO Emergency Plan revision. To the extent practical, this training includes table top and/or simulated emergency drills. Predictable human factors concerns which would be expected to challenge implementation of the revised ANO Emergency Plan during the upcoming ANO-1 refueling outage include effective communications, updating of Emergency Plan documents in the ANO-1 Control Room in light of the number of Operations, Maintenance, and Reactor Engineering personnel that are likely to be present in the Control Room during a refueling outage, and the increased potential for an event to occur due to the high number of ongoing activities associated with a refueling outage.

Due to extensive personnel resources required to support a refueling outage, the normal Operations training cycle is suspended during such time periods. The remaining Operations training cycle which evaluates application of the NEI 99-01, Revision 6, EALs cannot be fully completed until about mid-December 2019 since the ANO-1 refueling outage is not scheduled to end until on or about November 15, 2019. In addition, lessons learned from the current and upcoming training cycle are expected to result in accommodating procedure changes prior to full implementation of the revised ANO Emergency Plan. Identification of potential changes are likely to continue until the mid-December 2019 end of the upcoming training cycle.

Based on the above and accounting for unforeseen circumstances that could arise, Entergy requests an amendment to extend the implementation date of the NEI 99-01, Revision 6 – based ANO Emergency Plan until January 14, 2020.

Continued use of the ANO Emergency Plan which is based on the guidance of NEI 99-01, Revision 5, will not prevent effective and efficient execution of mitigating and recovery efforts that may be necessary should an event occur prior to the new proposed implementation date. The current ANO Emergency Plan has been in use, drilled, and evaluated since its implementation. Therefore, delaying the implementation of the NEI 99-01, Revision 6 – based ANO Emergency Plan until January 14, 2020 will not affect the health and safety of the public or challenge nuclear safety in any manner.

Based on the above, Entergy has concluded that the proposed amendment request minimizes potential human factors concerns with no impact to nuclear or public safety.

Note that ANO Emergency Plan procedures require new EALs to be reviewed with State and local officials prior to implementation or on an annual basis when no changes have occurred. This review is currently scheduled for September 20, 2019 and will be documented in accordance with procedure. Entergy maintains communication with all relevant offsite authorities with respect to EAL changes and associated dates of implementation.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The regulations in 10 CFR 50.54(q) provide direction to licensees seeking to revise emergency plans. The requirements related to nuclear power plant emergency plans are contained in the standards in 10 CFR 50.47, “Emergency Plans,” and the requirements of Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities.”

Paragraph 10 CFR 50.47(a)(1) states that no operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Section 50.47(b) contains standards that onsite and offsite emergency response plans must meet for the NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. One of these standards, 10 CFR 50.47(b)(4), requires that emergency plans include a standard emergency classification and action level scheme.

10 CFR 50, Appendix E, Section IV.B, “*Assessment Actions*,” requires that emergency plans include emergency action levels (EALs) that are to be used as criteria for determining the need for notification and participation of local and state agencies, and for determining when and what type of protective measures should be considered to protect the health and safety of individuals both onsite and offsite. EALs are to be based on plant conditions and instrumentation, as well as onsite and offsite radiological monitoring. Section IV.B provides that initial EALs shall be discussed and agreed on by the applicant and state and local authorities, be approved by the NRC, and reviewed annually thereafter with state and local authorities. Therefore, a revision to EALs will require NRC approval prior to implementation, if it involves (1) changing from one EAL scheme to another (e.g., NEI 99-01, Revision 5 to NEI 99-01, Revision 6), (2) proposing an alternate method to comply with the regulations, or (3) the EAL revision proposed by the licensee decreases the effectiveness of the emergency plan.

NRC Regulatory Issue Summary (RIS) 2005-02, Revision 1, "Clarifying the Process for Making Emergency Plan Changes," issued April 19, 2011, says that a change in an EAL scheme to incorporate the improvements provided in NUMARC/NESP-007 or NEI 99-01 would not decrease the overall effectiveness of the emergency plan, but due to the potential safety significance of the change, the change needs prior NRC review and approval.

The proposed change has no impact on the ability to meet the above regulatory requirements.

4.2 Precedent

No precedent directly associated with an extension of an implementation period related to an Emergency Plan based on the guidance of NEI 99-01, Revision 6, was identified. However, implementation period extensions have been previously approved by the NRC for unrelated license amendments. The following are two examples of such amendments:

1. Change of implementation date for Farley Nuclear Plant, Unit 2, associated with Amendment 176 (Reference 2).
2. Extension of NFWA-805 modification due date for Browns Ferry Nuclear Plant, Units 1, 2, and 3 (Reference 3).

4.3 No Significant Hazards Consideration Analysis

Entergy Operations, Inc. (Entergy) has evaluated the proposed change to the Arkansas Nuclear One (ANO), Unit 1 and Unit 2 (ANO-1 and ANO-2) Emergency Plan using the criteria in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration.

Entergy proposes to extend the implementation date associated with the currently approved Emergency Plan Emergency Action Level (EAL) scheme for ANO, which is based on the guidance provided in NEI 99-01, Revision 6, "*Development of Emergency Action Levels for Non-Passive Reactors.*" The subject implementation date is proposed to be extended from October 30, 2019, to January 14, 2020.

Basis for no significant hazards consideration determination: As required by 10 CFR 50.91(a), Entergy analysis of the issue of no significant hazards consideration (NSHC) is presented below.

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

An Emergency Plan provides mitigative and recovery efforts associated with certain station events that could impact the health and safety of the public. The ANO Emergency Plan is unrelated to any accident or event initiator. The ANO Emergency Plan currently in use is based on Revision 5 of the aforementioned NEI guidance, as previously approved by the NRC. An Emergency Plan based on either Revision 5 or Revision 6 of the NEI guidance is effective and acceptable for establishing all necessary actions necessary to mitigate the consequences of an accident previously evaluated and have been previously endorsed by

the NRC. Therefore, the proposed NEI 99-01, Revision 6 – based ANO Emergency Plan implementation does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

As stated previously, an Emergency Plan is not associated with any accident initiator but acts only to limit the consequences of an accident. The proposed amendment does not alter any plant equipment or otherwise affect the accident analyses of either ANO unit. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No

As stated previously, an Emergency Plan based on either Revision 5 or Revision 6 of the NEI guidance is effective and acceptable for establishing all necessary actions necessary to mitigate the consequences of an accident previously evaluated and have been previously endorsed by the NRC. ANO will continue to utilize the station Emergency Plan based on NEI 99-01, Revision 5, until Revision 6 of the NEI guidance is fully implemented. Therefore, delaying implementation of the NEI 99-01, Revision 6 – based ANO Emergency Plan does not involve a significant reduction in a margin of safety.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change would change a requirement with respect to extending the implementation date of the revised Emergency Plan for Arkansas Nuclear One, Unit 1 and Unit 2. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

6.0 REFERENCES

1. U. S. Nuclear Regulatory Commission letter to Entergy Operations, Inc., "*Arkansas Nuclear One, Units 1 and 2 – Issuance of Amendments RE: Revision to the Emergency Action Level Scheme (EPID L-2018-LLA-0082)*" (OCNA011902) (ML18337A247), dated January 17, 2019.
2. U. S. Nuclear Regulatory Commission letter "*Joseph M. Farley Nuclear Plant – Issuance of Amendment Regarding Change of Implementation Date for Amendment No. 176 for Unit 2 (TAC No. ME3445)*" (ML101100668), dated May 10, 2010.
3. U. S. Nuclear Regulatory Commission letter "*Browns Ferry Nuclear Plant, Units 1, 2 and 3 – Issuance of Amendment Nos. 308, 331, and 291 to Extend Implementation Due Date for Modifications 102 and 106 Related to NFPA 805, "Performance-Based Standard for Fire Protection of Light Water Reactor Electric Generating Plants" (EPID L-2019-LLA-0140)*" (ML19198A001), dated August 13, 2019.