



January 16, 2020

NG-19-0141
10 CFR 50.12

ATTN: Document Control Desk
U.S. Nuclear Regulatory
Commission Washington, DC
20555-0001

Duane Arnold Energy Center
Docket No. 50-331
Renewed Op. License No. DPR-49

Request for Partial Exemption from Record Retention Requirements for
Duane Arnold Energy Center

By letter dated January 18, 2019 (Accession No. ML19023A196), NextEra Energy Duane Arnold, LLC (NEDA) provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of the intention to permanently cease power operations at the Duane Arnold Energy Center (DAEC) in the fourth quarter of 2020.

Pursuant to Title 10 Code of Federal Regulations (CFR) 50.12, NextEra Energy Duane Arnold, LLC (NEDA) requests a permanent exemption from:

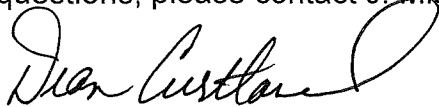
- 1) 10 CFR 50 Appendix B, Criterion XVII, which requires certain records be retained consistent with applicable regulatory requirements for a duration established by the licensee;
- 2) 10 CFR 50.59(d)(3), which requires certain records be maintained until "termination of an operating license issued under this part"; and
- 3) 10 CFR 50.71(c), which requires certain records be retained for the period specified by the appropriate regulation, license condition, or technical specification, or until termination of the license if not otherwise specified.

NEDA is not requesting an exemption from 10 CFR 50, Appendix A, Criterion 1, which requires certain records to be maintained "Throughout the life of the unit," because DAEC is not a General Design Criteria plant.

Once NEDA permanently ceases operations and submits the certifications required by 10 CFR 50.82(a)(1)(i) and (ii), pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 license for DAEC will no longer authorize operation of the reactor or emplacement or retention or fuel in the reactor vessel. Once granted and implemented, the requested exemption will eliminate the requirement to maintain records that are no longer necessary due to the permanently shut down status of DAEC.

NEDA requests review and approval of this exemption request by November 1, 2020, to support the current schedule to permanently defuel the DAEC. NEDA requests that the approved exemption request become effective for DAEC following the docketing of the certification required by 10 CFR 50.82(a)(1) that the DAEC has been permanently shut down and defueled.

There are no regulatory commitments made in this letter. If you should have further questions, please contact J. Michael Davis, Licensing Manager at 319-851-7032.

A handwritten signature in black ink, appearing to read "Dean Curtland". The signature is fluid and cursive, with a large loop at the end.

Dean Curtland
Site Director, Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC

Attachment: Request for Partial Exemption from Record Retention Requirements

cc: NRC Region III Administrator
NRC Resident Inspector
NRC Project Manager

Attachment 1 to

NG-19-0141

Request for Partial Exemption from Record Retention Requirements for
Duane Arnold Energy Center

11 pages follow

1. BACKGROUND

By letter dated January 18, 2019 (Reference 1), NextEra Energy Duane Arnold (NEDA) provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of the intention to permanently cease power operations at the DAEC in the fourth quarter of 2020. After the certifications of permanent cessation of power operation and of permanent removal of fuel from the reactor vessel are docketed for DAEC, in accordance with 10 CFR 50.82(a)(1)(i) and (ii), and pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 license for DAEC will no longer authorize reactor operation or emplacement or retention of fuel in the reactor vessel.

The nuclear reactor and essentially all associated systems, structures, and components (SSCs) in the nuclear steam supply system and balance of plant that supported the generation of power will be retired in place and prepared for removal. The SSCs that remain operable or functional are: 1) those required to support safe storage of spent fuel in the SFP; and 2) those that are needed to meet other regulatory requirements or are needed to support other site facilities (e.g., radwaste handling, heating, ventilation and air conditioning (HVAC), etc.).

NEDA's decommissioning plans for DAEC will be described in the Post Shutdown Decommissioning Activities Report (PSDAR), which NEDA will submit under separate letter. NEDA is currently planning to decommission DAEC using the SAFSTOR method. The initial decommissioning activities to be performed after plant shutdown will entail preparing the plant for a period of safe-storage (also referred to as dormancy). This includes defueling the reactor and transferring the fuel into the SFP, draining of fluids and de-energizing systems, and reconfiguring the electrical distribution, ventilation, heating, and fire protection systems. Systems needed for continued operation of the SFP may be reconfigured for operational efficiency.

While NEDA intends to retain the records required by the DAEC license as the facility transitions from the current plant conditions to fully dismantled with the fuel in dry storage, the regulatory and business needs for maintenance of most of the records will be obviated. As the SSCs are removed from the licensing basis and the need to retain their associated records is, on a practical basis, eliminated, NEDA requests exemptions from the records retention requirements for DAEC SSCs and historical activities that are no longer relevant. Such exemptions would eliminate the associated unnecessary regulatory and economic burdens of retaining records for SSCs that are no longer part of the DAEC licensing basis.

2. DETAILED DESCRIPTION

Pursuant to 10 CFR 50.12, "Specific exemptions," NEDA requests permanent exemption from:

- 1) 10 CFR 50 Appendix B, Criterion XVII, which required certain records be retained consistent with applicable regulatory requirements for a duration established by the licensee;
- 2) 10 CFR 50.59(d)(3), which requires certain records be maintained until "termination of an operating license issued under this part"; and
- 3) 10 CFR 50.71(c), which requires certain records be retained for the period specified by the appropriate regulation, license condition, or technical specification, or until termination of the license if not otherwise specified.

The exemption is requested to allow NEDA to eliminate the requirement to maintain records that are no longer necessary or applicable due to the permanently defueled condition and decommissioning status of DAEC. Specifically, the following records would no longer be retained:

- Records associated with SSCs, and activities that were applicable to the nuclear unit, which are no longer required by the Part 50 licensing basis (e.g., removed from the Updated Final Safety Analysis Report and/or Technical Specifications by appropriate change mechanisms); and
- For SSCs associated with safe storage of fuel in the SFP, when spent nuclear fuel has been completely transferred from the SFP to dry storage, the SFP is ready for demolition, and the associated licensing bases are no longer effective.

NEDA is not requesting an exemption from 10 CFR 50, Appendix A, Criterion 1, which requires certain records to be maintained "Throughout the life of the unit," because DAEC is not a General Design Criteria plant. NEDA is not requesting an exemption associated with any record keeping requirements for storage of spent fuel in the DAEC Independent Spent Fuel Installation (ISFSI) under 10 CFR 50 or Renewed Facility Operating License No. DPR-49 applicable to the decommissioning and dismantlement of DAEC.

3. DISCUSSION

In order for an exemption to be granted from the requirements of 10 CFR Part 50, Appendix B, Criterion XVII, 10 CFR 50.59(d)(3), and 10 CFR 50.71(c), the licensee must show that the requirements of 10 CFR 50.12(a)(1), are met and that special circumstances, as specified in 10 CFR 50.12(a)(2), exist. As discussed below, NEDA

satisfies these standards for the requested exemptions.

4. TECHNICAL EVALUATION

A. Nuclear Power Generation SSCs

After permanent shut down and defueling, the DAEC nuclear steam supply system and balance of plant SSCs will be retired in place pending dismantlement. The SSCs will no longer be operable or maintained except as required to support safe storage of spent fuel in the SFP and other support needs described above. The general justification for eliminating records associated with that portion of the plant is straightforward in that these SSCs will be removed from service under the NRC license, dismantled or demolished, and will not serve any DAEC functions regulated by the NRC.

NEDA recognizes that some records related to the nuclear steam supply system and balance of plant will continue to be under NRC regulation primarily due to residual radioactivity. The radiological and other necessary programmatic controls (such as security, quality assurance, etc.) for the facility and the implementation of controls for the defueled condition and the decommissioning activities will continue to be appropriately addressed through the license and current plant documents such as the Updated Final Safety Analysis Report (UFSAR) and Technical Specifications (TS). Except for future changes made through the applicable change process defined in the regulations (e.g., 10 CFR 50.48(f), 10 CFR 50.59, 10 CFR 50.90, 10 CFR 50.54(a), 10 CFR 50.54(p), 10 CFR 50.54(q), etc.), these programmatic elements and their associated records are unaffected by the proposed exemption.

B. Spent Fuel Pool and Associated SSCs and Activities

Records necessary for spent fuel storage SSCs and activities will continue to be retained through the SFP's functional life. Similar to the other plant records, once the SFP is emptied of fuel, drained and ready for demolition, there will be no safety-significant function or other regulatory need for retaining SFP related records. Also, similar to the power generation SSCs, NEDA recognizes that some records related to the SFP SSCs will continue to be under NRC regulation primarily due to residual radioactivity. The radiological and other necessary programmatic controls (such as security, quality assurance, etc.) for the facility and the implementation of controls for the defueled condition and the decommissioning activities will continue to be appropriately addressed through the license and current plant documents such as the UFSAR and TS. Except for future changes made through the applicable change process defined in regulations (e.g., 10 CFR 50.48(f), 10 CFR 50.59, 10 CFR 50.90, 10 CFR 50.54(a), 10 CFR 50.54(p), 10 CFR 50.54(q), etc.), these programmatic elements and their associated records are unaffected by the proposed exemption.

The requested exemption is consistent with the retention period for records of changes in the facility or spent fuel storage cask design implemented under 10 CFR 72.48, Changes, Tests, and Experiments. 10 CFR 72.48(d)(3)(i) specifically states that records are to be retained until "...Spent fuel is no longer stored in the facility." This is analogous to the condition when the fuel is no longer stored in the SFP and the SFP is ready for demolition.

C. Spent Fuel

NEDA is not requesting any exemption associated with retention of spent fuel records required by 10 CFR 50 and 10 CFR 72.

D. ISFSI

NEDA is not requesting any exemption associated with the retention of records associated with the storage of spent fuel at the ISFSI required by 10 CFR 72.

5. JUSTIFICATION FOR EXEMPTION AND SPECIAL CIRCUMSTANCES

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of Part 50 which: (i) are authorized by law, (ii) will not endanger life or property or the common defense and security, and (iii) are otherwise in the public interest. 10 CFR 50.12 also states that the Commission will not consider granting an exemption unless special circumstances are present.

The following addresses each of these conditions and demonstrates that the NRC may grant the exemption request pursuant to its regulations.

(i) Authorized by Law

Paragraph 50.71(d)(2) allows for the granting of specific exemptions to the record retention requirements specified in the regulations. Paragraph 50.71(d)(2) states, in part: "the retention period specified in the regulations in this part for such records shall apply unless the Commission, pursuant to §50.12 of this part, has granted a specific exemption from the record retention requirements specified in the regulations in this part."

If the specific exemption requirements of 10 CFR 50.12 are satisfied, the exemption from the record keeping requirements of 10 CFR 50.71(c), 10 CFR Part 50 Appendix B, Criterion XVII, and 10 CFR 50.59(d)(3) is authorized by law. The request does not result in a violation of the Atomic Energy Act of

1954, as amended, or the Commission's regulations. Therefore, granting an exemption is explicitly authorized by the NRC's regulations.

(ii) Will Not Present an Undue Risk to Public Health and Safety

Removal of the underlying SSCs associated with the records from the DAEC licensing basis will be evaluated in accordance with the applicable change process defined in the regulations, e.g., 10 CFR 50.59, or an NRC approved license amendment, to have no adverse public health and safety impact. Elimination of associated records for these SSCs will have no additional impact.

The partial exemption from the record keeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix B, Criterion XVII; and 10 CFR 50.59(d)(3), for the records described above is administrative in nature and will have no impact on any decommissioning activities or on radiological effluents. Therefore, the partial exemption from the recordkeeping requirements of 10 CFR 50.71(c), 10 CFR Part 50 Appendix B, and 10 CFR 50.59(d)(3) will have no reasonable possibility of presenting any undue risk to the public health and safety.

(iii) Exemption is Consistent with the Common Defense and Security

The elimination of the record keeping requirements is administrative in nature and does not involve information or activities that could potentially impact the common defense and security of the United States. Upon removal of the affected SSCs from the DAEC licensing basis, the records have no functional purpose relative to maintaining the safe operation of the SSCs nor to maintaining conditions that would affect the ongoing health and safety of workers or the public.

The exemption requested is administrative in nature. Therefore, the partial exemption from the recordkeeping requirements of 10 CFR 50.71(c), 10 CFR Part 50 Appendix B, and 10 CFR 50.59(d)(3) is consistent with the common defense and security.

(iv) Special Circumstances

Pursuant to 10 CFR 50.12(a)(2), the NRC will not consider granting an exemption to its regulations unless special circumstances are present. Special circumstances are present as follows:

A) 10 CFR 50.12(a)(2)(ii): Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

10 CFR 50 Appendix B, Criterion XVII, states in part: "Sufficient records shall be maintained to furnish evidence of activities affecting quality."

10 CFR 50.59(d)(3) states in part: "The records of changes in the facility must be maintained until termination of an operating license issued under this part..."

10 CFR 50.71(c) states in part: "Records that are required by the regulations in this part or Part 52 of this chapter, by license condition, or by technical specifications must be retained for the period specified by the appropriate regulation, license condition, or technical specification. If a retention period is not otherwise specified, these records must be retained until the Commission terminates the facility license..."

The common and underlying purpose for the records related regulations cited above is to ensure that the licensing and design basis of the facility is understood, documented, preserved and retrievable relative to establishing and maintaining the SSC's safety functions for the life of the facility. These regulations, however, do not consider the reduction in safety related SSCs during the decommissioning process. Removal of SSCs from the licensing basis will be evaluated in accordance with the applicable change process in the regulations, e.g., 10 CFR 50.59, or NRC approved license amendment, to have no adverse public health and safety impact prior to elimination of any records. Elimination of associated records for these SSCs can have no additional impact. Retention of records associated with SSCs that will no longer be part of the facility licensing basis serves no safety or regulatory purpose. Ultimately, the SSCs will be physically removed from the facility. Therefore, application of these record retention requirements in those circumstances does not serve the underlying purpose of the regulations.

Based on the above, the application of the subject record keeping requirements to the DAEC records specified above is not required to achieve the underlying purpose of the rule. Thus, special circumstances are present which the NRC may consider, pursuant to 10 CFR 50.12(a)(2)(ii), to grant the requested exemption.

B) 10 CFR 50.12(a)(2)(iii): Compliance would result in undue hardship or other costs that are significant in excess of those contemplated when the regulation was adopted.

The records retention requirements applied by the NRC to the construction and operation of nuclear power plants are intended to demonstrate, on a

broad basis, that SSCs and activities are supportive of the safety analysis and the requirements of the NRC license for an operating reactor and operability of its safety functions. The records program requirements provide assurance that records will be captured, indexed, and stored in an environmentally suitable and retrievable condition resulting in a significant volume of records of many forms and a significant associated cost. The burden associated with the operations phase records requirements was understood and considered appropriate by the NRC and the reactor licensees. However, the burden of maintaining the volume of operations phase records that survived the life of a facility and no longer served any underlying safety purpose were not fully understood or considered. This is the current situation at the decommissioning facilities. The operating reactor records retention requirements, to which DAEC is currently regulated, are no longer necessary nor appropriate in that the SSCs and activities to which many of the records apply are no longer important to the facility, public or worker health and safety.

6. ENVIRONMENTAL ASSESSMENT

NextEra Energy Duane Arnold, LLC (NEDA) has determined that the requested exemption meets the categorical exclusion provision in 10 CFR 51.22(c)(25), as the requested licensing action is an exemption from the requirements of the NRC's regulations and: (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involve: safeguard plans, and materials control and accounting inventory scheduling requirements; or involve other requirements of an administrative, managerial, or organizational nature. The information provided below supports the basis for this determination.

- (i) There is no significant hazards consideration.

NEDA has evaluated the proposed exemption to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, "*Issuance of amendment*," as discussed below:

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

Response: No

The proposed exemption is administrative in nature. The proposed exemption has no effect on structures, systems, and components (SSCs) and no effect on the capability of any plant SSC to perform its design function. The proposed exemption would not increase the likelihood of the malfunction of any plant SSC.

The probability of occurrence of previously evaluated accidents is not increased, since most previously analyzed accidents will no longer be able to occur and the probability and consequences of the remaining Fuel Handling Accident are unaffected by the proposed exemption.

Therefore, the proposed exemption does not involve a significant increase in the probability or consequences of any accidents previously evaluated.

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

Response: No

The proposed exemption does not involve a physical alteration of the facility. No new or different type of equipment will be installed, and there are no physical modifications to existing equipment associated with the proposed exemption.

Similarly, the proposed exemption would not physically alter the facility or any SSCs involved in the mitigation of any accidents. Thus, no new initiators or precursors of a new or different kind of accident are created. Furthermore, the proposed exemption does not create the possibility of a new accident as a result of new failure modes associated with any equipment or personnel failures. No changes are being made to the parameters within which the facility is normally maintained, or in protective or mitigative action setpoints, and no new failure modes are being introduced.

Therefore, the proposed exemption does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No

The proposed exemption does not alter the design basis or any safety limits. The proposed exemption does not impact station operation or any facility SSC that is relied upon for accident mitigation.

Therefore, the proposed exemption does not involve a significant reduction in a margin of safety.

Based on the above, NEDA concludes that the proposed exemption does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

There are no changes in the types, characteristics, or quantities of effluents discharged to the environment associated with the proposed exemption. There are no materials or chemicals introduced that could affect the characteristics or types of effluents released offsite. In addition, the method of operation of waste processing systems will not be affected by the exemption. The proposed exemption will not result in changes to the design basis requirements of SSCs that function to limit or monitor the release of effluents.

Therefore, the proposed exemption will result in no significant change to the types or significant increase in the amounts of any effluents that may be released offsite.

- (iii) There is no significant increase in individual or cumulative public or occupational radiation exposure.

The proposed exemption does not involve any physical alterations to the plant configuration or any changes to the operation of the facility that could lead to a significant increase in individual or cumulative occupational radiation exposure.

Therefore, the exemption would result in no expected increases in individual or cumulative occupational radiation exposure on either the workforce or the public.

- (iv) There is no significant construction impact.

No construction activities are associated with the proposed exemption, and therefore, there is no significant construction impact.

- (v) There is no significant increase in the potential for or consequences from radiological accidents.

See the no significant hazards considerations discussion in item (i)(1) above.

- (vi) The requirements from which an exemption is sought involve safeguards, materials control, and managerial matters.

The requirements from which this exemption is sought involve recordkeeping requirements as defined in 10 CFR 50 Appendix B, Criterion XVII, 10 CFR 50.59(d)(3), and 10 CFR 50.71(c).

Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment is not required for the proposed exemption.

7. CONCLUSION

The information provided above gives the NRC sufficient basis for granting an exemption from the recordkeeping requirements of 10 CFR 50 Appendix B, Criterion XVII, 10 CFR 50.59(d)(3), and 10 CFR 50.71(c) for: 1) records pertaining to SSCs or activities associated with the nuclear power unit and associated support systems that are no longer required to support licensed operations at the DAEC site; and 2) records pertaining to the SFP and associated support systems for the safe storage of fuel in the SFP after all the spent nuclear fuel has been transferred from the SFP to the ISFSI, and the SFP is ready for demolition. This exemption does not apply to any recordkeeping requirements for spent fuel or storage of the spent fuel at the DAEC ISFSI under 10 CFR 50 or the general requirements of 10 CFR 72.

Based on the considerations discussed above, the requested exemption is authorized by law, otherwise in the public interest, and consistent with the common defense and security.

NEDA requests review and approval of this exemption request by November 1, 2020. NEDA requests that the approved exemption become effective for DAEC following the docketing of the certification required by 10 CFR 50.82(a)(1) that the DAEC has been permanently shut down and defueled. NEDA will use this exemption, if granted, to eliminate the applicable records associated with SSCs and activities no longer required by the DAEC licensing basis.

8. PRECEDENT

The proposed request is consistent with exemption requests recently approved by the NRC in the following correspondence:

- Letter dated January 30, 2007, NRC to Christian, "Millstone Power Station, Unit No. 1 – Partial Exemption from Record Keeping Requirements," (ML070110567);
- Letter dated June 23, 2011, NRC to Christian, "Zion Nuclear Power Station, Units 1 and 2 – Exemption from Record Keeping Requirements," (ML111260277);
- Letter dated December 22, 2015, NRC to Entergy, "Vermont Yankee Nuclear Power Station – Partial Exemptions from the Requirements of 10 CFR Part 50, Appendix B, Criterion XVII; 10 CFR 50.59(d)(3); 10 CFR 50.71(c)," (ML15344A243);
- Letter dated July 18, 2016, NRC to Palmisano, "San Onofre Nuclear Generating Station, Units 1, 2 and 3 – Exemption from Record Keeping Requirements" (ML15355A055).
- Letter dated May 10, 2017, NRC to Heacock, "Kewaunee Power Station – Exemption from Record Retention Requirements," (ML17069A394).

9. REFERENCES

- (1) Letter from NextEra Energy Duane Arnold, LLC to NRC, "Certification of Permanent Cessation of Power Operations," dated January 18, 2019 (ML19023A196).