[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-331; NRC-2021-0105]

NextEra Energy Duane Arnold, LLC

Duane Arnold Energy Center

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has issued an exemption in response to a request from the licensee that would permit NextEra Energy Duane Arnold, LLC to reduce the required level of primary offsite liability insurance from $450 million to $100 million and to eliminate the requirement to carry secondary financial protection for the Duane Arnold Energy Center.

DATES: The exemption was issued on May 11, 2021.

ADDRESSES: Please refer to Docket ID **NRC-2021-0105** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to https://www.regulations.gov and search for Docket ID **NRC-2021-0105**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; e-mail: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please

contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **Attention**: The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via e-mail at pdr.resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Marlayna V. Doell, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3178; e-mail: Marlayna.Doell@nrc.gov.

SUPPLEMENTARY INFORMATION: The text of the exemption is attached.

Dated: May 12, 2021.

For the Nuclear Regulatory Commission.

/RA/

Marlayna V. Doell, Project Manager,
Reactor Decommissioning Branch,
Division of Decommissioning, Uranium
Recovery and Waste Programs,
Office of Nuclear Material Safety
and Safeguards.

Attachment – Exemption

NUCLEAR REGULATORY COMMISSION

Docket No. 50-331

NextEra Energy Duane Arnold, LLC

Duane Arnold Energy Center

Exemption

I. Background.

By letter dated January 18, 2019 Agencywide Documents Access and Management System (ADAMS) Accession No. ML19023A196, NextEra Energy Duane Arnold, LLC (NEDA, the licensee) certified to the U.S. Nuclear Regulatory Commission (NRC, the Commission) that it planned to permanently cease power operations at the Duane Arnold Energy Enter (DAEC) in the fourth quarter of 2020. By letter dated March 2, 2020 (ADAMS Accession No. ML20062E489), NEDA updated its timeline and certified to the NRC that it planned to permanently cease power operations at DAEC on October 30, 2020. By letter dated August 27, 2020 (ADAMS Accession No. ML20240A067), NEDA certified to the NRC that power operations permanently ceased at DAEC on August 10, 2020, and in a letter dated October 12, 2020 (ADAMS Accession No. ML20286A317), that the fuel was permanently removed from the DAEC reactor vessel and placed in the spent fuel pool (SFP) as of October 12, 2020.

Based on the docketing of these certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, as specified in Title 10 of the *Code of Federal Regulations* (10 CFR) section 50.82(a)(2), the 10 CFR part 50 renewed facility operating license for DAEC (No. DPR-49) no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel. The

facility is still authorized to possess and store irradiated (i.e., spent) nuclear fuel. Spent fuel is currently stored onsite at the DAEC facility in the SFP and in a dry cask independent spent fuel storage installation (ISFSI).

II. Request/Action.

By letter dated July 16, 2020 (ADAMS Accession No. ML20198M584), NEDA requested an exemption from 10 CFR 140.11(a)(4) concerning offsite primary and secondary liability insurance. The exemption from 10 CFR 140.11(a)(4) would permit the licensee to reduce the required level of primary offsite liability insurance from $450 million to $100 million and to eliminate the requirement to carry secondary financial protection for DAEC.

The regulation at 10 CFR 140.11(a)(4) requires each licensee to have and maintain primary financial protection in an amount of $450 million. In addition, the licensee is required to participate in an industry retrospective rating plan (secondary financial protection) that commits each licensee to pay into an insurance pool to be used for damages that may exceed primary insurance coverage. Participation in the industry retrospective rating plan will subject the licensee to deferred premium charges up to a maximum total deferred premium of $131,056,000 with respect to any nuclear incident at any operating nuclear power plant and up to a maximum annual deferred premium of $20,496,000 per incident.

Many of the accident scenarios postulated in the updated safety analysis reports for operating power reactors involve failures or malfunctions of systems, which could affect the fuel in the reactor core and, in the most severe postulated accidents, would involve the release of large quantities of fission products. With the permanent cessation of power operations at DAEC and the permanent removal of the fuel from the reactor

vessel, many accidents are no longer possible. Similarly, the associated risk of offsite liability damages that would require insurance or indemnification is commensurately lower for such plants. Therefore, the licensee requested an exemption from 10 CFR 140.11(a)(4) to permit a reduction in primary offsite liability insurance and to withdraw from participation in the industry retrospective rating plan.

III. Discussion.

Pursuant to 10 CFR 140.8, "Specific exemptions," the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in 10 CFR part 140 when the exemptions are authorized by law and are otherwise in the public interest. The NRC staff has reviewed the licensee's request for an exemption from 10 CFR 140.11(a)(4) and has concluded that the requested exemption is authorized by law and is otherwise in the public interest.

The Price Anderson Act of 1957 (PAA) requires that nuclear power reactor licensees have insurance to compensate the public for damages arising from a nuclear incident. Specifically, the PAA requires licensees of facilities with a "rated capacity of 100,000 electrical kilowatts or more" to maintain the maximum amount of primary offsite liability insurance commercially available (currently $450 million) and a specified amount of secondary insurance coverage (currently up to $131,056,000 per reactor). In the event of an accident causing offsite damages in excess of $450 million, each licensee would be assessed a prorated share of the excess damages, up to $131,056,000 per reactor, for a total of approximately $13 billion per nuclear incident. The NRC's regulations at 10 CFR 140.11(a)(4) implement these PAA insurance requirements and set forth the amount of primary and secondary insurance each power reactor licensee must have.

As noted above, the PAA requirements with respect to primary and secondary insurance and the implementing regulations at 10 CFR 140.11(a)(4) apply to licensees of facilities with a "rated capacity of 100,000 electrical kilowatts or more." In accordance with 10 CFR 50.82(a)(2), the license for a power reactor no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel upon the docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. Therefore, the reactor cannot be used to generate power.

Accordingly, a reactor that is undergoing decommissioning has no "rated capacity." Thus, the NRC may take the reactor licensee out of the category of reactor licensees that are required to maintain the maximum available insurance and to participate in the secondary retrospective insurance pool.

The financial protection limits of 10 CFR 140.11(a)(4) were established to require a licensee to maintain sufficient insurance, as specified under the PAA, to satisfy liability claims by members of the public for personal injury, property damage, and the legal cost associated with lawsuits as the result of a nuclear accident at an operating reactor with a rated capacity of 100,000 kilowatts electric or greater. Thus, the insurance levels established by this regulation, as required by the PAA, were associated with the risks and potential consequences of an accident at an operating reactor with a rated capacity of 100,000 kilowatts electric or greater.

The legal and associated technical basis for granting exemptions from 10 CFR part 140 is set forth in SECY-93-127, "Financial Protection Required of Licensees of Large Nuclear Power Plants During Decommissioning," dated May 10, 1993 (ADAMS Accession No. ML12257A628). The legal analysis underlying SECY-93-127 concluded

that, upon a technical finding that lesser potential hazards exist after permanent cessation of power operations (and the reactor having no “rated capacity”), the Commission has the discretion under the PAA to reduce the amount of insurance required of a licensee undergoing decommissioning.

As a technical matter, the fact that a reactor has permanently ceased power operations is not itself determinative as to whether a licensee may cease providing the offsite liability coverage required by the PAA and 10 CFR 140.11(a)(4). In light of the presence of freshly discharged irradiated fuel in the SFP at a recently shutdown reactor, the potential for an offsite radiological release from a zirconium fire with consequences comparable in some respects to an operating reactor accident remains. That risk is very low at the time of reactor shutdown because of design provisions that prevent a significant reduction in coolant inventory in the SFP under normal and accident conditions, and becomes no longer credible once the continual reduction in decay heat provides ample time to restore coolant inventory and permits air cooling in a drained SFP. After that time, the probability of a large offsite radiological release from a zirconium fire is negligible for permanently shutdown reactors, but the SFP is still operational and an inventory of radioactive materials still exists onsite. Therefore, an evaluation of the potential for offsite damage is necessary to determine the appropriate level of offsite insurance post shutdown, in accordance with the Commission’s discretionary authority under the PAA to establish an appropriate level of required financial protection for such permanently shutdown facilities.

The NRC staff has conducted an evaluation and concluded that, aside from the handling, storage, and transportation of spent fuel and radioactive materials for a permanently shutdown and defueled reactor, no reasonably conceivable potential

accident exists that could cause significant offsite damage. During normal power reactor operations, the forced flow of water through the reactor coolant system (RCS) removes heat generated by the reactor. The RCS transfers this heat away from the reactor core by converting reactor feedwater to steam, which then flows to the main turbine generator to produce electricity. Most of the accident scenarios postulated for operating power reactors involve failures or malfunctions of systems that could affect the fuel in the reactor core, which in the most severe postulated accidents would involve the release of large quantities of fission products. With the permanent cessation of reactor operations at DAEC and the permanent removal of the fuel from the reactor core, such accidents are no longer possible. The reactor, RCS, and supporting systems no longer operate and have no function related to the storage of the irradiated fuel. Therefore, postulated accidents involving failure or malfunction of the reactor, RCS, or supporting systems are no longer applicable.

During reactor decommissioning, the principal radiological risks are associated with the storage of spent fuel onsite. On a case-by-case basis, licensees undergoing decommissioning have been granted permission to reduce the required amount of primary offsite liability insurance coverage from $450 million to $100 million and to withdraw from the secondary insurance pool. One of the technical criteria for granting the exemption is that the possibility of a design-basis event that could cause significant offsite damage has been significantly reduced.

The NRC staff performed an evaluation of the design-basis accidents for DAEC when permanently defueled as part of SECY-21-0006, “Request by NextEra Energy Duane Arnold, LLC for Exemptions from Certain Emergency Planning Requirements

for the Duane Arnold Energy Center," dated January 15, 2021 (ADAMS Package Accession No. ML20218A875).

NEDA has stated, and the NRC staff agrees, that while spent fuel remains in the SFP, the only postulated design-basis accident that would remain applicable to DAEC in the permanently defueled condition that could contribute a significant dose is a fuel handling accident (FHA) in the reactor building, where the SFP is located. For completeness, the NRC staff also evaluated the applicability of other design-basis accidents documented in the DAEC Updated Final Safety Analysis Report (UFSAR) (ADAMS Package Accession No. ML19100A055) to ensure that these accidents would not have consequences that could potentially exceed the 10 CFR 50.67 dose limits and Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," dose acceptance criteria or approach the U.S. Environmental Protection Agency (EPA) early phase protective action guides (PAGs).

In the DAEC UFSAR, the licensee has determined that within 19 days after shutdown (with open containment), the FHA doses would decrease to a level that would not warrant protective actions under the EPA early phase PAG framework, notwithstanding meeting the dose limit requirements under 10 CFR 50.67 and dose acceptance criteria under Regulatory Guide 1.183. The NRC staff notes that the doses from an FHA are dominated by the isotope Iodine-131. DAEC permanently ceased power operations on August 10, 2020. With 10 months of decay, the thyroid dose from an FHA would be negligible. After 10 months of decay, the only isotope remaining in significant amounts, among those postulated to be released in a design-basis FHA, would be Krypton-85. Since Krypton-85 primarily decays by beta emission, the

calculated skin dose from an FHA analysis would make an insignificant contribution to the total effective dose equivalent, which is the parameter of interest in the determination of the EPA early phase PAGs for sheltering or evacuation. The NRC staff concludes that the dose consequence from an FHA for the permanently shutdown DAEC would not approach the EPA early phase PAGs. Therefore, any offsite consequence from a design-basis radiological release is highly unlikely and, thus, a significant amount of offsite liability insurance coverage is not required.

The only beyond design-basis event that has the potential to lead to a significant radiological release at a permanently shutdown and defueled reactor is a zirconium fire in the SFP. The zirconium fire scenario is a postulated, but highly unlikely, accident scenario that involves the loss of water inventory from the SFP resulting in a significant heatup of the spent fuel and culminating in substantial zirconium cladding oxidation and fuel damage. The probability of a zirconium fire scenario is related to the decay heat of the irradiated fuel stored in the SFP. Therefore, the risks from a zirconium fire scenario continue to decrease as a function of the time that DAEC has been permanently shut down.

In SECY-93-127 the NRC staff concluded that there was a low likelihood and reduced short-term public health consequences of a zirconium fire once a decommissioning plant's spent fuel has sufficiently decayed. In its Staff Requirements Memorandum, "Financial Protection Required of Licensees of Large Nuclear Power Plants during Decommissioning," dated July 13, 1993 (ADAMS Accession No. ML003760936), the Commission approved a policy that authorized, through the exemption process, withdrawal from participation in the secondary insurance layer and a reduction in commercial liability insurance coverage to $100 million when a licensee is

able to demonstrate that the spent fuel could be air-cooled if the SFP was drained of water.

The NRC staff has used this technical criterion to grant similar exemptions to other decommissioning reactors (e.g., Pilgrim Nuclear Power Station, published in the *Federal Register* on January 13, 2020 (85 FR 1827)). Additional discussions of other decommissioning reactor licensees that have received exemptions to reduce their primary insurance level to $100 million are provided in SECY-96-256, "Changes to the Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w) and 10 CFR 140.11," dated December 17, 1996 (ADAMS Accession No. ML15062A483). These prior exemptions were based on the licensee demonstrating that the SFP could be air-cooled consistent with the technical criterion discussed above.

In SECY-00-0145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," dated June 28, 2000, and SECY-01-0100, "Policy Issues Related to Safeguards, Insurance, and Emergency Preparedness Regulations at Decommissioning Nuclear Power Plants Storing Fuel in Spent Fuel Pools," dated June 4, 2001 (ADAMS Accession Nos. ML003721626 and ML011450420, respectively), the NRC staff discussed additional information concerning SFP zirconium fire risks at decommissioning reactors and associated implications for offsite insurance. Analyzing when the spent fuel stored in the SFP is capable of adequate air-cooling is one measure that demonstrates when the probability of a zirconium fire would be exceedingly low.

The NRC staff evaluated the issue of zirconium fires and presented an independent evaluation of an SFP subject to a severe earthquake in NUREG-2161, "Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor," dated September 2014 (ADAMS

Accession No. ML14255A365). The specific reference plant used for this study is a General Electric (GE) Type 4 BWR with a Mark I containment. The analysis postulates a severe earthquake and evaluates the potential for the SFP to lose inventory and potentially uncover the spent fuel. This evaluation concluded that, for the representative BWR, spent fuel stored in a dispersed high-density configuration would be adequately cooled by natural circulation air flow within several months after discharge from a reactor if the pool was drained of water during a severe earthquake scenario. Specifically, the NUREG-2161 analysis identified that 107 days after shutdown, the stored fuel would have decayed sufficiently and be in a configuration that allows for air cooling of the fuel during a severe earthquake. This would prevent radiological releases without the need for additional mitigation actions; therefore, no release as a result of a zirconium cladding fire would be expected.

The NRC staff compared the DAEC facility with the reference plant in NUREG-2161 and identified that DAEC is also a GE Type 4 BWR with a Mark I containment. The staff also confirmed (see ADAMS Accession No. ML21089A207) that DAEC stores the spent fuel following a dispersed high-density loading pattern consistent with the dispersed high-density configuration assumed in NUREG-2161. Therefore, the NRC staff determined that the stored fuel in the DAEC SFP will remain in a coolable configuration following a design basis seismic event. Based on DAEC's conformance with the analysis in NUREG-2161, the NRC staff finds that there is reasonable assurance that the fuel stored in the DAEC SFP is air coolable 10 months after the permanent shutdown of the reactor.

In addition, the licensee performed adiabatic heatup analyses in which a complete drainage of the SFP is combined with rearrangement of spent fuel rack

geometry and/or the addition of rubble to the SFP; this type of analysis postulates that decay heat transfer from the spent fuel via conduction, convection, or radiation would be impeded. NEDA's adiabatic heatup analyses demonstrate that 10 months after the permanent cessation of operations, there would be at least 10 hours after the loss of all means of cooling (both air and/or water) before the spent fuel cladding would reach a temperature where the potential for a significant offsite radiological release could occur.

In the July 16, 2020, application, NEDA furnished the following information: "Because of the length of time it would take for the adiabatic heat up to occur, there is ample time to respond to any partial drain down event that might cause such an occurrence by restoring cooling or makeup, or providing spray. As a result, the likelihood that such a scenario would progress to a zirconium fire is deemed not credible."

In the NRC staff's evaluation contained in SECY-21-0006, the NRC staff assessed the NEDA accident analyses associated with the radiological risks from a zirconium fire at a permanently shutdown and defueled DAEC after 10 months of decay. For the highly unlikely beyond design-basis accident scenario where the SFP coolant inventory is lost in such a manner that all methods of heat removal from the spent fuel are no longer available, the NRC staff found that there will be a minimum of 10 hours from the initiation of the accident until the cladding reaches a temperature where offsite radiological release might occur. The NRC staff finds that 10 hours is sufficient time to support deployment of mitigation equipment, consistent with plant conditions, to prevent the zirconium cladding from reaching a point of rapid oxidation.

The NRC staff has determined that the licensee's proposed reduction in primary offsite liability coverage to a level of $100 million and the licensee's proposed withdrawal

from participation in the secondary insurance pool for offsite financial protection are consistent with the policy established in SECY-93-127 and subsequent insurance considerations resulting from zirconium fire risks, as discussed in SECY-00-0145 and SECY-01-0100. The NRC has previously determined in SECY-00-0145 that the minimum offsite financial protection requirement may be reduced to $100 million and that secondary insurance is not required once it is determined that the spent fuel in the SFP is no longer thermal-hydraulically capable of sustaining a zirconium fire based on a plant-specific analysis. In addition, the NRC staff notes that similar exemptions from these insurance requirements have been granted to other permanently shutdown and defueled power reactors upon satisfactory demonstration that the zirconium fire risk from the irradiated fuel stored in the SFP is of negligible concern.

A. The Exemption is Authorized by Law

The PAA and its implementing regulations in 10 CFR 140.11(a)(4) require licensees of nuclear reactors that have a rated capacity of 100,000 kilowatts electric or more to have and maintain $450 million in primary financial protection and to participate in a secondary retrospective insurance pool. In accordance with 10 CFR 140.8, the Commission may grant exemptions from the regulations in 10 CFR part 140 as the Commission determines are authorized by law. The legal and associated technical basis for granting exemptions from 10 CFR part 140 are set forth in SECY-93-127. The legal analysis underlying SECY-93-127 concluded that, upon a technical finding that lesser potential hazards exist after permanent cessation of operations, the Commission has the discretion under the PAA to reduce the amount of insurance required of a licensee undergoing decommissioning.

Based on its review of the exemption request, the NRC staff concludes that the technical criteria for relieving NEDA from its existing primary and secondary insurance obligations have been met. As explained above, the NRC staff found that no reasonably conceivable design-basis accident exists that could cause an offsite release greater than the EPA PAGs and, therefore, that any offsite consequence from a design-basis radiological release is highly unlikely and the need for a significant amount of offsite liability insurance coverage is unwarranted. Additionally, the NRC staff determined that, after 10 months decay, the fuel stored in the DAEC SFP will be capable of being adequately cooled by air in the highly unlikely event of pool drainage. Moreover, in the highly unlikely beyond design-basis accident scenario where the SFP coolant inventory is lost in such a manner that all methods of heat removal from the spent fuel are no longer available, the NRC staff has determined that at least 10 hours would be available and is sufficient time to support deployment of mitigation equipment, consistent with plant conditions, to prevent the zirconium cladding from reaching a point of rapid oxidation. Thus, the NRC staff concludes that the fuel stored in the DEAC SFP will have decayed sufficiently by the requested effective date for the exemption of 10 months after permanent cessation of power operations to support a reduction in the required offsite insurance consistent with SECY-00-0145.

The NRC staff has determined that granting the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, Section 170, or other laws, as amended, which require licensees to maintain adequate financial protection. Accordingly, consistent with the legal standard presented in SECY-93-127, under which decommissioning reactor licensees may be relieved of the requirements to carry the maximum amount of insurance available and to participate in the secondary

retrospective premium pool where there is sufficient technical justification, the NRC staff concludes that the requested exemption is authorized by law.

B. The Exemption is Otherwise in the Public Interest

The financial protection limits of 10 CFR 140.11 were established to require licensees to maintain sufficient offsite liability insurance to ensure adequate funding for offsite liability claims following an accident at an operating reactor. However, the regulation does not consider the reduced potential for and consequence of nuclear incidents at permanently shutdown and decommissioning reactors.

The basis provided in SECY-93-127, SECY-00-0145, and SECY-01-0100 allows licensees of decommissioning plants to reduce their primary offsite liability insurance and to withdraw from participation in the retrospective rating pool for deferred premium charges. As discussed in these documents, once the zirconium fire concern is determined to be negligible, possible accident scenario risks at permanently shutdown and defueled reactors are greatly reduced when compared to the risks at operating reactors, and the associated potential for offsite financial liabilities from an accident are commensurately less. The licensee analyzed and the NRC staff confirmed that the risks of accidents that could result in an offsite radiological release are minimal, thereby justifying the proposed reductions in offsite primary liability insurance and withdrawal from participation in the secondary retrospective rating pool for deferred premium charges.

Additionally, participation in the secondary retrospective rating pool could potentially have adverse consequences on the safe and timely completion of decommissioning. If a nuclear incident sufficient to trigger the secondary insurance layer occurred at another nuclear power plant, the licensee could incur financial liability

of up to $131,056,000. However, because DAEC is permanently shut down, it cannot produce revenue from electricity generation sales to cover such a liability. Therefore, such liability if subsequently incurred could significantly affect the ability of the facility to conduct and complete timely radiological decontamination and decommissioning activities. In addition, as SECY-93-127 concluded, the shared financial risk exposure to the licensee is greatly disproportionate to the radiological risk posed by DAEC when compared to operating reactors.

The reduced overall risk to the public at decommissioning power plants does not warrant that the licensee be required to carry full operating reactor insurance coverage after the requisite spent fuel cooling period has elapsed following final reactor shutdown. The licensee's proposed financial protection limits will maintain a level of liability insurance coverage commensurate with the risk to the public. These changes are consistent with previous NRC policy as discussed in SECY-00-0145 and exemptions approved for other decommissioning reactors. Thus, the underlying purpose of the regulations will not be adversely affected by the reductions in insurance coverage. Accordingly, an exemption from participation in the secondary insurance pool and a reduction in the primary insurance to $100 million, a value more in line with the potential consequences of accidents, would be in the public interest in that this ensures that there will be adequate funds to address any of those consequences and helps to ensure the safe and timely decommissioning of the reactor.

Therefore, the NRC staff has concluded that an exemption from 10 CFR 140.11(a)(4), which would permit NEDA to lower the DAEC primary insurance levels and to withdraw from the secondary retrospective premium pool at the requested effective

date of 10 months after the permanent cessation of power operations, is in the public interest.

C. Environmental Considerations

The NRC's approval of an exemption from insurance or indemnity requirements belongs to a category of actions that the Commission, by rule or regulation, has declared to be a categorical exclusion after first finding that the category of actions does not individually or cumulatively have a significant effect on the human environment. Specifically, the exemption is categorically excluded from the requirement to prepare an environmental assessment or environmental impact statement in accordance with 10 CFR 51.22(c)(25).

Under 10 CFR 51.22(c)(25), granting of an exemption from the requirements of any regulation of Chapter I to 10 CFR is a categorical exclusion provided that: (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 surety, insurance, or indemnity requirements.

As the Director, Division of Decommissioning, Uranium Recovery, and Waste Programs, Office of Nuclear Material Safety and Safeguards, I have determined that approval of the exemption request involves no significant hazards consideration, as defined in 10 CFR 50.92, because reducing the licensee's offsite liability requirements for DAEC does not: (1) involve a significant increase in the probability or consequences

of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The exempted financial protection regulation is unrelated to the operation of DAEC or site activities. Accordingly, there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite and no significant increase in individual or cumulative public or occupational radiation exposure. The exempted regulation is not associated with construction so there is no significant construction impact. The exempted regulation does not concern the source term (i.e., potential amount of radiation in an accident) or any activities conducted at the site. Therefore, there is no significant increase in the potential for, or consequences of, a radiological accident. In addition, there would be no significant impacts to biota, water resources, historic properties, cultural resources, or socioeconomic conditions in the region resulting from issuance of the requested exemption. The requirement for offsite liability insurance involves surety, insurance, or indemnity matters only.

Therefore, pursuant to 10 CFR 51.22(b) and 51.22(c)(25), no environmental impact statement or environmental assessment need be prepared in connection with the approval of this exemption request.

IV. Conclusions.

Accordingly, the Commission has determined that, pursuant to 10 CFR 140.8, the exemption is authorized by law and is otherwise in the public interest. Therefore, the Commission hereby grants NEDA an exemption from the requirements of 10 CFR 140.11(a)(4) for DAEC. DAEC permanently ceased power operations on August 10, 2020. The exemption from 10 CFR 140.11(a)(4) permits DAEC to reduce the required level of primary financial protection from $450 million to $100 million and to

withdraw from participation in the secondary layer of financial protection 10 months after permanent cessation of power operations.

The exemption is effective as of 10 months after permanent cessation of power operations at DAEC, which is June 10, 2021.

Dated: May 11, 2021.

For the Nuclear Regulatory Commission.

/RA/

Patricia K. Holahan, Director,
Division of Decommissioning, Uranium Recovery, and Waste Programs,
Office of Nuclear Material Safety and Safeguards.