



March 20, 2014

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

Serial No. 14-055
LIC/CDS/R0
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
REQUEST FOR EXEMPTION FROM 10 CFR 140.11(a)(4)

Pursuant to 10 CFR 140.8, "Specific exemptions," Dominion Energy Kewaunee, Inc. (DEK) requests a permanent exemption from 10 CFR 140.11(a)(4) for Kewaunee Power Station (KPS). 10 CFR 140.11 requires licensees to have and maintain two levels of financial protection against off-site liability for each nuclear reactor which is licensed to operate, designed for the production of electrical energy, and has a rated capacity of 100,000 kilowatts electric (kWe) or more. The two levels of financial protection are as follows:

- Primary insurance coverage of \$375,000,000 from private sources; and,
- Secondary financial protection in the form of private liability insurance available under an industry retrospective rating plan.

DEK is requesting an exemption to 10 CFR 140.11(a)(4) for KPS that would reduce the required level of primary off-site liability insurance to \$100,000,000 and eliminate the requirement for KPS to carry secondary financial protection.

The underlying purpose of 10 CFR 140.11(a)(4) is to require sufficient liability insurance to ensure adequate funding of any claims resulting from a potential nuclear incident or precautionary evacuation associated with an individual power reactor. However, the regulation does not take into consideration the reduced potential for, and consequences of, such nuclear incidents at permanently shutdown facilities. The KPS facility is a single reactor site and the reactor is permanently shut down and defueled (References 1 and 2). The proposed exemption would allow a reduction in the level of financial protection against off-site liability at KPS to a level that is commensurate with the permanently defueled status of the facility and the underlying purpose of the rule.

The exemption request is provided in the attachment to this letter. DEK requests approval of this exemption request by March 31, 2015. If approved prior to October 30, 2014, DEK will delay implementation of this exemption until after October 30, 2014. Plant-specific analyses show that after October 30, 2014, the spent fuel stored in the KPS spent fuel pool will have decayed to the extent that it is no longer thermal-hydraulically capable of sustaining a zirconium fire if the spent fuel pool is accidentally drained. A zirconium fire represents the most significant incident possible following

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permanent defueling of the reactor. These plant-specific analyses are discussed in the attachment to this letter.

Please contact Mr. Craig Sly at 804-273-2784 if you have any questions or require additional information.

Very truly yours,



Mark D. Sartain
Vice President – Nuclear Engineering

Attachment:

1. Request for Exemption from 10 CFR 140.11(a)(4)

References:

1. Letter from D. G. Stoddard (DEK) to NRC Document Control Desk, "Certification of Permanent Cessation of Power Operations," dated February 25, 2013. [ADAMS Accession No. ML13058A065]
2. Letter from Daniel G. Stoddard (DEK) to NRC Document Control Desk, "Certification of Permanent Removal of Fuel from the Reactor Vessel," dated May 14, 2013 [ADAMS Accession No. ML13135A209]

Commitments made by this letter: None

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ATTACHMENT 1

REQUEST FOR EXEMPTION FROM 10 CFR 140.11(a)(4)

**KEWAUNEE POWER STATION
DOMINION ENERGY KEWAUNEE, INC.**

KEWAUNEE POWER STATION
REQUEST FOR EXEMPTION FROM 10 CFR 140.11(A)(4)

I. DESCRIPTION OF REQUESTED EXEMPTION

Pursuant to 10 CFR 140.8, "Specific exemptions," Dominion Energy Kewaunee, Inc. (DEK) requests a permanent exemption from 10 CFR 140.11(a)(4) for Kewaunee Power Station (KPS). 10 CFR 140.11(a)(4) requires licensees to have and maintain two levels of financial protection against off-site liability for each nuclear reactor which is licensed to operate, designed for the production of electrical energy, and has a rated capacity of 100,000 kilowatts electric (kWe) or more. The two levels of financial protection are as follows:

- Primary insurance coverage of \$375,000,000 from private sources; and,
- Secondary financial protection in the form of private liability insurance available under an industry retrospective rating plan.

The proposed exemption would reduce the required level of primary off-site liability insurance to \$100,000,000 and eliminate the requirement for DEK to carry secondary insurance coverage.

10 CFR 140.11(a)(4) reads as follows:

10 CFR 140.11, "Amounts of financial protection for certain reactors"

(a) Each licensee is required to have and maintain financial protection:

(4) In an amount equal to the sum of \$375,000,000 and the amount available as secondary financial protection (in the form of private liability insurance available under an industry retrospective rating plan providing for deferred premium charges equal to the pro rata share of the aggregate public liability claims and costs, excluding costs payment of which is not authorized by section 170o.(1)(D) of the Act, in excess of that covered by primary financial protection) for each nuclear reactor which is licensed to operate and which is designed for the production of electrical energy and has a rated capacity of 100,000 electrical kilowatts or more: Provided, however, that under such a plan for deferred premium charges for each nuclear reactor which is licensed to operate, no more than \$121,255,000 with respect to any nuclear incident (plus any surcharge assessed under subsection 170o.(1)(E) of the Act) and no more than \$18,963,000 per incident within one calendar year shall be charged. Except that, where a person is authorized to operate a combination of 2 or more nuclear reactors located at a single site, each of which has a rated capacity of 100,000 or more electrical kilowatts but not more than 300,000 electrical kilowatts with a combined rated capacity of not more than 1,300,000 electrical kilowatts, each such combination of reactors shall be considered to be a single nuclear reactor for the sole purpose of assessing the applicable financial protection required under this section.

II. BACKGROUND

The KPS facility is a single unit reactor site with the reactor permanently shut down and defueled (Reference 1 and 2). KPS is located in the southeast corner of Kewaunee County, Wisconsin, on the west shore of Lake Michigan. By letter dated May 14, 2013, DEK submitted a certification of permanent removal of fuel from the reactor vessel. Therefore, the 10 CFR Part 50 license for KPS no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2). Currently, spent fuel from reactor operation is stored either in the onsite Independent Spent Fuel Storage Installation (ISFSI) or in the spent fuel pool.

III. DISCUSSION AND JUSTIFICATION

The underlying purpose of 10 CFR 140.11 is to require sufficient liability insurance to ensure adequate funding of any claims resulting from a potential nuclear incident or precautionary evacuation associated with an individual power reactor. The financial protection limits of 10 CFR 140.11 were established to require that licensees maintain sufficient insurance to cover the costs of a nuclear incident at an operating reactor. However, the regulation does not take into consideration the reduced potential for and consequences of nuclear incidents at permanently shutdown and defueled facilities like KPS.

Although the likelihood of an accident at an operating reactor is small, the consequences can be large, in part due to the high temperatures and pressures of the reactor coolant system as well as the inventory of radionuclides. For a permanently shutdown and defueled reactor, nuclear accidents involving the reactor and its associated systems, structures and components are no longer possible. Furthermore, reductions in the probability and consequences of non-operating reactor nuclear incidents are substantially reduced because; 1) the decay heat from the spent fuel decreases over time, which reduces the amount of cooling required to prevent the spent fuel from heating up to a temperature that could compromise the ability of the fuel cladding to retain fission products, and; 2) the relatively short-lived radionuclides contained in the spent fuel, particularly volatile components like iodine and noble gasses, decay away, thus reducing the inventory of radioactive materials available for release.

Although the potential for, and consequences of, nuclear accidents decline substantially after a plant permanently defuels its reactor, they are not completely eliminated. There are potential onsite and offsite radiological consequences that could be associated with the onsite storage of the spent fuel in the spent fuel pool (SFP). In addition, a site with a permanently shutdown and defueled reactor may contain an inventory of radioactive liquids, activated reactor components, and contaminated materials. For purposes of modifying the amount of offsite liability insurance coverage maintained by a permanently shutdown and defueled reactor licensee, the potential radiological

consequences of these non-operating reactor nuclear incidents are appropriate to consider, despite their very low probability of occurrence.

A. Reduced Scope and Severity of Radiological Accidents at KPS

Section 14 of the KPS Updated Safety Analysis Report (USAR) described the design basis accident (DBA) scenarios that were applicable to KPS during power operations. During normal power operations, the forced flow of water through the reactor coolant system (RCS) removed the heat generated by the reactor core. The RCS, operating at high temperatures and pressures, transferred this heat through the steam generator tubes to the secondary system. The most severe postulated accidents for operating nuclear power plants involve damage to the reactor core and the release of large quantities of fission products to the reactor coolant system. Many of the USAR accident scenarios for operating plants involve failures or malfunctions of systems which could affect the reactor core.

DEK is decommissioning KPS using a SAFSTOR method in which most fluid systems are drained and the plant is left in a stable condition until final decontamination and dismantlement activities begin. The irradiated fuel will be stored in the spent fuel pool (SFP) and/or in the ISFSI until it is shipped off site sometime in the future. The reactor, RCS, and secondary system are no longer in operation and have no function related to the safe storage and management of irradiated fuel. Details related to the decommissioning plans for KPS were provided to the NRC in the KPS Post Shutdown Decommissioning Activities Report (PSDAR) (Reference 3).

Since all fuel has been permanently removed from the reactor vessel, the postulated accidents involving failure or malfunction of the reactor, RCS, or secondary system are no longer applicable. The postulated accidents that remain applicable to KPS in the permanently defueled condition are a fuel handling accident (FHA) in the auxiliary building where the SFP is located, an accidental release of waste liquid, or an accidental release of waste gas. The waste gas tanks have been purged. Therefore, a rupture of the associated waste gas storage system components is no longer an applicable initiator or source of such an accident. Since waste liquids are only of concern if they contain gases with a potential to be volatilized; and since there are no longer dissolved radioactive gases onsite with the potential for being volatilized while waste liquid is being stored or processed for discharge; waste liquids are also no longer a source of such an accident.

A revised FHA analysis was developed to address the permanently defueled condition of KPS. The analysis determined a reasonable time post-cessation of operations for movement of fuel from the spent fuel pool during which, if a fuel handling accident occurs, dose consequences would not exceed the limits of the Environmental Protection Agency (EPA) Protective Actions Guidelines (PAGs) (Reference 13) at the exclusion area boundary (EAB). The analysis assumes spent fuel pool decontamination based on 23 feet of water over the failed fuel assembly, no credit for emergency ventilation or

filtration (control room or otherwise) and no credit for control room atmospheric dispersion for a bounding upper limit of acceptable control room unfiltered inflow.

The revised FHA analysis shows that, following 90 days of irradiated fuel decay time after reactor shutdown¹ and compliance with the spent fuel pool water level requirements of Technical Specification TS 3.7.13, the dose consequences are acceptable without relying on any systems, structures, or components (SSCs) to remain functional during and following the event. The supporting calculation for this analysis was provided in Enclosure 4 of Reference 9 (Calculation RA-0028, "Kewaunee Fuel Handling Accident Post-Cessation of Operations.")

B. NRC Proposed Rulemaking

The NRC staff has generically evaluated the legal, technical, and policy issues regarding the financial protection requirements for large nuclear power plants that have been permanently shut down. The results of these evaluations were summarized in SECY-96-256 (Reference 4) and the NRC staff recommended course of action was approved by the Commission in a Staff Requirements Memo (SRM) (Reference 5). These documents established the basis for the NRC exercising its discretionary authority to specify an appropriate level of financial protection from offsite liability for permanently shutdown nuclear power reactors.

In SECY-97-186 (Reference 6), the NRC staff proposed rulemaking for Commission approval that was consistent with SECY-96-256, Option 2. In SECY-97-186, the NRC staff proposed changes to 10 CFR 140.11 that would establish appropriate levels of offsite liability coverage for plants that are permanently shutdown and defueled and that meet specified facility configurations during permanent shutdown.

On October 30, 1997, the NRC published a proposed rulemaking to amend regulations governing liability coverage for permanently shutdown nuclear plants. The proposed rulemaking established four different configurations for permanently shutdown plants that encompassed anticipated spent fuel characteristics and storage modes during the period between permanent shutdown and termination of the license. The rulemaking proposed financial protection requirements for each of the four specified plant configurations, including a configuration where the plant is permanently shutdown, the reactor defueled, and the spent fuel stored in the spent fuel pool is not susceptible to a zircaloy cladding failure or gap release caused by an incipient fuel cladding failure if the pool is accidentally drained.

However, the NRC staff rulemaking efforts were suspended prior to issuing the final rule when it was realized that an NRC staff-approved technical basis did not exist for generic decay times after which the zirconium cladding failure concern could be eliminated. The

¹ KPS was shutdown on May 7, 2013. Therefore, 90 days of irradiated fuel decay time elapsed on August 5, 2013.

proposed changes to regulations governing offsite liability coverage were subsequently included in a risk-informed, integrated rulemaking initiative for decommissioning nuclear power plants, which has yet to be acted on. This rulemaking initiative, documented in SECY-00-145 (Reference 7), included offsite financial protection requirements based on the proposed decommissioning insurance rulemaking issued on October 30, 1997, as modified to address the public comments received in response to that proposed rulemaking. The modified rulemaking, as incorporated into SECY-00-145, would have allowed the minimum offsite financial protection requirement to be reduced to \$100 million and not require secondary insurance once the spent fuel in the spent fuel pool is no longer thermal-hydraulically capable of sustaining a zirconium fire, based on a plant-specific analysis.

As discussed in the staff response to a question in SECY-00-145 (see page 6, response to Question 3)

"The staff believes that full insurance coverage must be maintained for 5 years or until a licensee can show by analysis that its spent fuel pool is no longer vulnerable to such [a zirconium] fire."

In addition, as discussed in the staff response to a question in SECY-00-145 (see page 6, response to Question 4):

"Since the zirconium fire scenario would be possible for up to several years following shutdown, and since the consequences of such a fire could be severe in terms of offsite health consequences, property damage, and land contamination, the staff position is that full offsite liability coverage (both primary and secondary levels) must be retained for five years or until analysis has indicated that a zirconium fire is no longer possible. At that point, primary coverage would be reduced from \$200 million to \$100 million and participation in the secondary retrospective rating pool would no longer be required."

In a memorandum dated August 16, 2002 (Reference 8), the NRC Executive Director for Operations provided the NRC Commissioners a status of the regulatory exemptions for plants in decommissioning. This memorandum stated that,

"In the absence of any anticipated nuclear power plant decommissionings in the near term, the staff believes that there is no immediate need for moving forward with a majority of the decommissioning regulatory improvement work that is currently planned. Specifically, broad scope regulatory improvements for decommissioning nuclear power plants do not appear to be of sufficient priority given a lack of future licensees that would benefit at this time. Due to higher priorities, resources are being deferred for decommissioning rulemakings that are not currently in progress or not related to security.... If any plants do unexpectedly shutdown permanently, decommissioning regulatory issues would continue to be addressed through the exemption process in a manner similar to current practice."

Thus, the proposed rulemaking process changes for decommissioning plants discussed above were stopped in deference to the exemption process that had been used for previous licensees.

C. Plant-Specific Analyses of Beyond Design Basis Events

DEK assessed the following beyond design basis events associated with irradiated fuel stored in the KPS SFP. Supporting calculations for these assessments were provided to the NRC in Enclosure 4 of Reference 9. A summary of the assessments is provided below.

1. Complete Loss of Cooling Water Inventory with Air Cooling

DEK has performed a qualitative comparison of the heatup characteristics of the KPS spent fuel that would result from a beyond design basis event involving the complete loss of spent fuel pool (SFP) water (when cooling depends on the natural circulation of air through the spent fuel racks), against the results documented in NUREG/CR-6451, "A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants" (Reference 10), for the reference PWR. The results of this comparison concluded that the minimum spent fuel decay time necessary to preclude the possibility of a zirconium/zircaloy fire for the condition where the SFP is completely drained is approximately 17 months for KPS. Therefore, as of October 30, 2014, the earliest date that the requested exemption would be implemented, decay heat cannot raise the spent fuel cladding temperature sufficiently to cause clad failure (565°C) if all water is drained from the SFP. Since fuel cladding would remain intact at this temperature, a complete loss of water from the KPS SFP would not result in an offsite release exceeding the early-phase EPA Protective Action Guidelines (PAGs). A copy of the qualitative comparison is provided in Enclosure 4 of Reference 9 (Evaluation ETE-NAF-20130072, "Kewaunee Spent Fuel Pool Zirconium Fire Parameter Comparison").

A confirmatory quantitative analysis of this qualitative comparison was subsequently performed, with similar results, and is also provided in Enclosure 4 of Reference 9 (Sargent & Lundy Calculation 2013-11284, "Maximum Cladding and Fuel Temperature Analysis for Uncovered Spent Fuel Pool").

The above plant-specific analysis established that after 17 months of spent fuel decay time, air cooling will be adequate in the normal storage configuration to prevent zircaloy cladding failure or gap release caused by an incipient fuel cladding failure if the pool is accidentally drained.

2. Loss of All Heat Removal Capability

By October 2014, approximately 26 days will be available to restore water cooling to the SFP before the SFP water level reaches three feet above the top of the fuel (additional time would be available before fuel is uncovered). Because of the

relative ease with which alternative means of supplying cooling water to the SFP can be established, it is not reasonable to postulate that fuel damage can occur due to a loss of normal cooling capability to the SFP.

3. Partial Loss of Cooling Water Inventory with No Air Cooling

A site-specific adiabatic heatup analysis to address a partial draindown of the SFP was performed to conservatively evaluate the length of time for uncovered spent fuel assemblies to reach a critical temperature for clad damage assuming no air-cooling. The analysis shows that the time necessary for the hottest fuel assembly to reach the critical temperature of 900°C, which corresponds to the temperature threshold for self-sustained oxidation of cladding in air, is 10 hours after the fuel rods have become uncovered. The supporting calculation for this analysis is provided in Enclosure 4 of Reference 9 (Calculation 2013-07050, "Maximum Cladding Temperature Analysis for an Uncovered Spent Fuel Pool with No Air Cooling"). As stated in NUREG-1738, 900°C is an acceptable temperature to use for assessing onset of fission product release under transient conditions. Ten hours is sufficient time for personnel at the station to respond with additional resources, equipment, and capability to restore cooling to the spent fuel pool, even after the most non-credible, catastrophic drain down event, and if necessary, to initiate offsite protective measures.

4. Rapid Draindown Due to Cask Drop Event

KPS has a single-failure proof auxiliary building crane that is used for lifting heavy loads, such as spent fuel casks, over the SFP. The seismic analysis methodology for the auxiliary building crane is required by KPS License Condition 2.C.(11) and is being maintained in the KPS license. Because the auxiliary building crane will not lower its load in an uncontrolled fashion during a seismic event, a cask drop event is not considered a credible initiator of a rapid SFP draindown event at KPS.

5. Shine from a Drained Spent Fuel Pool

Although a significant release of radioactive material from the spent fuel is not possible in the absence of water cooling after approximately 17 months, the potential exists for radiation exposure to an offsite individual in the event that shielding of the fuel is lost (a beyond-design-basis event). The supporting calculation for this analysis is provided in Enclosure 4 of Reference 9 (Calculation RA-0044, "Dose Rate at the KPS Site Boundary Following a Complete Draindown of the Spent Fuel Pool"). The gamma radiation dose rate at the site boundary would be sufficiently low, such that it would take more than a month for the event to exceed the EPA early-phase Protective Action Guidelines (PAG) of 1 Rem. This would allow sufficient time to develop and implement onsite mitigative actions and provide confidence that additional offsite measures could be taken without planning if efforts to re-establish shielding over the spent fuel are delayed.

6. Radioactive Waste Handling Accident

This accident evaluates the drop of a high integrity container (HIC) in the auxiliary building such that its entire contents of radioactive, dewatered demineralizer resin (i.e., 100%) escapes. This analysis did not postulate any specific mechanism for release; however, ten percent of the HIC contents are dispersed into the air in aerosol form. A small fraction (i.e., 10%) of the escaped resin is non-mechanistically assumed to be released as airborne radioactivity and pass from the auxiliary building directly to the environment. The sum of the whole body and inhalation doses at the exclusion area boundary is 0.015 rem, which is much less than the 1 rem limit of the EPA PAG. Supporting information is provided in Enclosure 4 of Reference 9 (Calculation RA-0050, "Kewaunee Resin Cask Drop Dose Consequence Analysis").

Based on the plant-specific qualitative comparison and quantitative analyses discussed above, DEK concludes that the criteria for reducing offsite liability financial protection, as established in SECY-00145 and its predecessor documents, will be met for KPS after October 30, 2014. Therefore, DEK believes that the proposed exemption is justified.

The proposed reduction in the level of off-site liability financial protection from \$375 million to \$100 million and elimination of the requirement to carry secondary coverage would continue to serve the underlying purpose of the rule and provide a conservative level of financial protection considered commensurate with the significant reduction in the probability and consequences of potential nuclear incidents at KPS. The exemption would not present an undue risk to the health and safety of the public because analyses demonstrate that dose to the public for events that can occur after October 30, 2014 are below acceptable limits. Consistent with the NRC's conclusions documented in SECY-00-145, this reduced financial protection insurance coverage would continue to conservatively ensure adequate funding to address potential claims resulting from the reduced offsite consequences of a permanently defueled facility by members of the public.

D. Previous Exemptions

Other decommissioning plants have been granted exemptions allowing the licensee to discontinue secondary insurance coverage. In addition, many single unit plants in decommissioning without operating reactors on the same site (like KPS) have been granted exemptions allowing significant reductions to primary insurance coverage.² Two specific examples are provided in References 11 and 12 for Millstone Unit 1 and Zion Units 1 and 2, respectively.

² For examples see SECY-97-186, Attachment 2, "Regulatory Analysis for Rulemaking on Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors," Table 2-1, "Financial Protection Exemptions Currently in Effect at PSD Plants."

E. Summary

DEK is requesting an exemption to 10 CFR 140.11(a)(4) that would reduce primary off-site liability insurance to \$100,000,000 and eliminate the requirement to carry secondary insurance coverage for KPS. The underlying purpose of 10 CFR 140.11(a)(4) is to provide sufficient liability insurance to ensure funding for claims resulting from a nuclear incident or precautionary evacuation. The financial protection limits of 10 CFR 140.11(a)(4) were established to require that licensees maintain sufficient insurance to cover the costs of a nuclear accident at an operating reactor. However, the regulation does not take into consideration the reduced potential for, and consequences of, nuclear incidents at permanently shutdown and defueled facilities.

KPS is a single unit facility that is permanently shutdown and defueled. As such, it is no longer possible for the radiological consequences of design basis accidents or other credible events at KPS to exceed the limits of the Environmental Protection Agency (EPA) Protective Actions Guidelines (PAGs) at the exclusion area boundary (EAB) after October 30, 2014 (Reference 13). DEK has performed site-specific analyses for cases where the spent fuel pool is assumed to be accidentally drained. These analyses show that after October 30, 2014: 1) air cooling of the spent fuel in the spent fuel pool will be sufficient to maintain the integrity of the fuel cladding, and; 2) if air cooling is interrupted, sufficient time is available to implement compensatory measures (such as refilling the SFP or spraying water on the spent fuel), to restore necessary cooling. In addition, a site-specific analyses shows that in the event of a loss of all heat removal capacity, approximately 26 days will be available to restore water cooling to the SFP before the SFP water level reaches three feet above the top of the fuel (additional time would be available before fuel is uncovered).

IV. JUSTIFICATION FOR EXEMPTION AND SPECIAL CIRCUMSTANCES

The specific requirements for granting exemptions from Part 140 regulations are set forth in 10 CFR 140.8. The Commission is authorized to grant an exemption upon a determination that the exemption (a) is authorized by law, and (b) is otherwise in the public interest. The following supports a finding by the NRC staff that an exemption should be authorized:

A. The Exemption is Authorized by Law

The requested exemption is authorized by law and similar exemptions have been granted by the Commission. Other permanently shutdown plants that have been granted similar exemptions are discussed above. In addition, the requested exemption is consistent with the guidelines presented by the NRC staff in SECY-96-256 and the NRC proposed rulemaking for 10 CFR Part 140.11 noticed in the Federal Register on October 30, 1997. The proposed exemption is consistent with the requirements of the Atomic Energy Act of 1954 as amended (Price-Anderson Act), which requires that power reactor licensees maintain some level of public liability financial protection.

B. The Exemption is Otherwise in the Public Interest

Approval of the exemption request would result in more efficient use of funds in the KPS decommissioning trust fund. The reduction in offsite financial protection from \$375 million to \$100 million and elimination of the requirement to participate in the secondary insurance pool would continue to require a level of financial protection commensurate with the underlying purpose of the rule while eliminating an unnecessary financial burden. Therefore, the proposed exemption is otherwise in the public interest.

V. ENVIRONMENTAL CONSIDERATION

The proposed exemption meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(25), because the proposed exemption involves: (i) no significant hazards consideration; (ii) no significant change in the types or significant increase in the amounts of any effluent that may be released offsite; (iii) no significant increase in individual or cumulative occupational radiation exposure; (iv) no significant construction impact; (v) no significant increase in the potential for consequences from radiological accidents; and (vi) the requirements from which the exemption is sought involve: (H) Surety, insurance or indemnity requirements. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed exemption.

(i) No significant hazards consideration

Pursuant to 10 CFR 140.8, Specific Exemptions," Dominion Energy Kewaunee, Inc. (DEK) requests a permanent exemption from 10 CFR 140.11(a)(4) for Kewaunee Power Station. The proposed exemption would reduce primary off-site liability insurance coverage to \$100 million and eliminate the requirement for KPS to participate in the secondary insurance pool. In addition to evaluating the criteria of 10 CFR 140.8, DEK 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 as discussed below:

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

The proposed exemption has no effect on plant systems, structures 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 proposed exemption would have no effect on the probability of consequences of any of the previously evaluated accidents in the KPS Updated Safety Analysis Report.

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

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

The proposed exemption does not involve a physical alteration of the plant. 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 change any structures, systems, or components 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 parameters within which the plant is normally operated, or in the setpoints which initiate protective or mitigative actions, 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 previously evaluated.

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

The proposed exemption does not alter the design basis or any safety limits for the plant. The proposed exemption does not impact station operation or any plant 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, DEK concludes that the proposed exemption presents no significant hazards consideration, 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 effluent that may be released offsite.

There are no expected 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 into the plant 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. All the SSCs associated with limiting the release of effluents will continue to be able to perform

their functions. 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 occupational radiation exposure.

The exemption would result in no expected increases in individual or cumulative occupational radiation exposure on either the workforce or the public. There are no expected increases in normal occupational doses.

(iv) There is no significant construction impact.

There are no construction activities associated with the proposed exemption.

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

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

(vi) The requirements from which exemption is sought involve surety, insurance or indemnity requirements.

The requirements from which the exemption is sought involve financial protection and for the indemnification and limitation of liability of licensees pursuant to Section 170 of the Atomic Energy Act of 1954, as amended.

VI. CONCLUSION

Pursuant to the provisions of 10 CFR 140.8, "Specific exemptions," Dominion Energy Kewaunee, Inc. (DEK) is requesting an exemption from 10 CFR 140.11(a)(4) for Kewaunee Power Station (KPS). The requested exemption is authorized by law and otherwise in the public interest.

References

1. Letter from D. G. Stoddard (DEK) to NRC Document Control Desk, "Certification of Permanent Cessation of Power Operations," dated February 25, 2013. [ADAMS Accession No. ML13058A065]
2. Letter from Daniel G. Stoddard (DEK) to NRC Document Control Desk, "Certification of Permanent Removal of Fuel from the Reactor Vessel," dated May 14, 2013. (ADAMS Accession No. ML13135A209)
3. Letter from Daniel G. Stoddard to NRC Document Control Desk, "Post Shutdown Decommissioning Activities Report," dated February 26, 2013. [ADAMS Accession No. ML13063A248]
4. 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.
5. Staff Requirements Memo, "Re: SECY-96-256, Changes to Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors," dated January 28, 1997. [Accession Number 9702070060]
6. SECY-97-186, "Changes to the Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w) and 10 CFR 140.11," dated August 13, 1997.
7. SECY-00-145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," dated June 28, 2000.
8. Memorandum from William D. Travers (NRC) to NRC Commissioners, Status of Regulatory Exemptions for Decommissioning Plants (WITS 200100085, WITS 199900133, WITS 199900072)," dated August 16, 2002.
9. Letter from M. D. Sartain to NRC Document Control Desk, "License Amendment Request 257, Permanently Defueled Emergency Plan and Emergency Action Level Scheme," dated January 16, 2014. [ADAMS Accession No. ML14029A076]
10. NUREG/CR-6451, "A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants," August 1997.
11. Letter from Drew Holland (NRC) to D. A. Christian (DEK), "Millstone Power Station Unit 1 – Exemption from Certain Requirements of 10 CFR Part 140 (TAC No. MA6658)," dated March 30, 2004. Also see 69 FR 17717, dated April 5, 2004.
12. Federal Register Volume 64, Number 248, December 28, 1999, pages 72700-72701, "In the Matter of Commonwealth Edison Company (Zion Nuclear Power Station, Units 1 and 2): Exemption."
13. U.S. Environmental Protection Agency, "Protective Action Guide and Planning Guidance for Radiological Incidents," Draft for Interim Use and Public Comment, dated March 2013 (PAG Manual).