



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-361 and 50-362; NRC-2018-0003]

Southern California Edison Company,

San Onofre Nuclear Generating Station, Units 2 and 3

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption from certain power reactor financial protection requirements in response to a September 16, 2015, request from the Southern California Edison Company (the licensee). The exemption would permit the San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS), to reduce the required level of primary financial protection from \$450 million to \$100 million, as well as to withdraw from participation in the secondary layer of financial protection effective immediately.

ADDRESSES: Please refer to Docket ID **NRC-2018-0003** 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:

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technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

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SUPPLEMENTARY INFORMATION:

I. Background

The San Onofre Nuclear Generating Station, Units 1, 2, and 3 (SONGS), operated by the Southern California Edison Company (SCE) is located approximately 4 miles south of San Clemente, California. The SONGS, Unit 1, Docket No. 50-206, was a

Westinghouse 456 megawatt electric (MWe) pressurized water reactor which was granted Facility Operating License No. DPR-13 on January 1, 1968 (ADAMS Accession No. ML13309A138), and ceased operation on November 30, 1992 (ADAMS Accession No. ML13319B040). The licensee completed defueling on March 6, 1993 (ADAMS Accession No. ML13319B055), and maintained the unit in SAFSTOR until June 1999, when it initiated decommissioning (ADAMS Accession No. ML13319B111). On December 28, 1993 (ADAMS Accession No. ML13319B059), the NRC approved the Permanently Defueled Technical Specifications for SONGS, Unit 1.

The SCE submitted the proposed Decommissioning Plan for SONGS, Unit 1, on November 3, 1994 (ADAMS Accession No. ML13319B073). As a result of the 1996 revision to the regulations in section 50.82 of title 10 of the *Code of Federal Regulations* (10 CFR), the NRC replaced the requirement for a decommissioning plan with a requirement for a Post Shutdown Decommissioning Activities Report (PSDAR). On August 28, 1996, the SONGS, Unit 1, Decommissioning Plan became the SONGS 1 PSDAR (61 FR 67079; December 19, 1996). On December 15, 1998 (ADAMS Accession No. ML13184A353), SCE submitted an update to the PSDAR to the NRC, as required by 10 CFR 50.82(a)(7), in order to begin planning for the dismantlement and decommissioning of SONGS, Unit 1. The SONGS, Unit 1, received approval for an exemption from the financial protection requirements under 10 CFR part 140 and 10 CFR 50.54(w), similar to what is being requested for SONGS, Units 2 and 3, on May 4, 1994.

The SONGS, Units 2 and 3, Docket Nos. 50-361 and 50-362, are Combustion Engineering 1127 MWe pressurized water reactors, which were granted Facility Operating Licenses NPF-10 on February 16, 1982, and NPF-15 on November 15, 1982, respectively. In June 2013, pursuant to 10 CFR 50.82(a)(1)(i), the licensee certified to

the NRC that as of June 4, 2013, operations had ceased at SONGS, Units 2 and 3 (ADAMS Accession No. ML131640201). The licensee subsequently certified, pursuant to 10 CFR 50.82(a)(1)(ii), that all fuel had been removed from the reactor vessels of both units, and committed to maintaining the units in a permanently defueled status (ADAMS Accession Nos. ML13204A304 and ML13183A391 for Unit 2 and Unit 3, respectively). Therefore, pursuant to 10 CFR 50.82(a)(2), SCE's 10 CFR part 50 licenses no longer authorize operation of SONGS Units 2 and 3, or emplacement or retention of fuel in the reactor vessels. The licensee is still authorized to possess and store irradiated nuclear fuel. Irradiated fuel is currently being stored onsite in spent fuel pools (SFPs) and in dry casks at an Independent Spent Fuel Storage Installation (ISFSI).

The PSDAR for SONGS, Units 2 and 3, was submitted on September 23, 2014 (ADAMS Accession No. ML14272A121), and the associated public meeting was held on October 27, 2014, in Carlsbad, California (ADAMS Accession No. ML14352A063). The NRC confirmed its review of the SONGS, Units 2 and 3, PSDAR and addressed public comments in a letter dated August 20, 2015 (ADAMS Accession No. ML15204A383). On July 17, 2015, the NRC approved the Permanently Defueled Technical Specifications for SONGS, Units 2 and 3 (ADAMS Accession No. ML15139A390).

II. Request/Action

Pursuant to 10 CFR 140.8, "Specific exemptions," SCE requested an exemption from 10 CFR 140.11(a)(4), by letter dated September 16, 2015 (ADAMS Accession No. ML15260B188). 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 would allow SCE to withdraw from participation in the secondary layer of financial protection (also known as the industry retrospective rating plan). The request to

eliminate the requirement to carry secondary financial protection is for SONGS, Units 2 and 3, only. The NRC previously granted an exemption for SONGS, Unit 1, from the requirements of 10 CFR 140.11(a)(4), which permitted SCE's withdrawal from participation in the industry retrospective rating plan in 1994 (Legacy ADAMS Accession No. 9405090151).

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 SCE to deferred premium charges up to a maximum total deferred premium of \$121,255,000 with respect to any nuclear incident at any operating nuclear power plant, and up to a maximum annual deferred premium of \$18,963,000 per incident.

The licensee states that the risk of an offsite radiological release is significantly lower at a nuclear power reactor that has permanently shut down and defueled, when compared to an operating power reactor. Similarly, the associated risk of offsite liability damages that would require insurance or indemnification is commensurately lower for permanently shut down and defueled plants. Therefore, SCE is requesting 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, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of

10 CFR part 140, when the exemptions are authorized by law and are 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 financial protection that is commercially available (currently, \$450 million) with access to the aggregate amount of secondary financial protection available to the industry (currently, up to \$121,255,000 per reactor covered by the rating plan totaling approximately \$13 billion for the industry per incident). The NRC’s regulations at 10 CFR 140.11(a)(4) implement these PAA requirements and set forth the amount of primary and secondary financial protection that each power reactor licensee must have.

As noted above, the PAA requirements with respect to primary and secondary financial protection, 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.” When the NRC issues a license amendment to a decommissioning licensee to reflect the defueled status of the facility, the license amendment includes removal of the rated capacity of the reactor from the license. Accordingly, a reactor that is undergoing decommissioning has no “rated capacity.” Removal of the rated capacity from the facility of a decommissioning licensee, thus, allows the NRC to 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 industry retrospective rating plan under the PAA, subject to a technical finding that lesser potential hazards exist at the facility after termination of operations.

The financial protection limits of 10 CFR 140.11(a)(4) were established to require a licensee to maintain sufficient financial protection, 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 incident at an operating reactor with a rated capacity of 100,000 electric kilowatts (or greater). Thus, the financial protection levels established by this regulation, and as required by the PAA, were associated with the risks and potential consequences of an incident at an operating reactor with a rated capacity of 100,000 electric kilowatts (or greater). The legal and associated technical basis for granting exemptions from 10 CFR part 140 is 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 termination of operations (and removal of the 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 operations is not itself determinative as to whether a licensee may cease providing the offsite financial protection coverage required by the PAA and 10 CFR 140.11(a)(4). In light of the presence of freshly discharged irradiated fuel in the spent fuel pool at a recently shutdown reactor, the primary consideration is the risk and potential consequence of an offsite radiological release from a zirconium fire. That risk generally remains the greatest for a period of about 15 to 18 months of decay time for the fuel used in the last cycle of power operation. After that time, the offsite consequences of an offsite radiological release from a zirconium fire are negligible for 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 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 shut down and defueled reactor, no reasonably conceivable potential incident 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, operating at high temperatures and pressures, transfers this heat through the steam generator tubes converting non-radioactive feedwater to steam, which then flows to the main turbine generator to produce electricity. Many 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 SONGS and the permanent removal of the fuel from the reactor cores, such accidents are no longer possible. The reactors, 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 reactors, RCS, or supporting systems are no longer applicable.

As described in the PSDAR, SONGS, Unit 1, is being returned to a condition suitable for unrestricted use. According to SCE, there are no structures, systems, or components (SSCs) classified as safety-related remaining at SONGS, Unit 1. Plant dismantlement is complete and nearly all of the SSCs have been shipped offsite for disposal. Only the spent fuel, reactor vessel, and the below-grade portions of some buildings remain onsite. The principal remaining decommissioning activities are soil

remediation, compaction, and grading. This is to be completed in conjunction with the future decommissioning of the ISFSI subsequent to offsite shipment of the spent fuel.

The licensee also stated that decommissioning of SONGS, Units 2 and 3, has begun and the nuclear reactors and essentially all associated SSCs in the nuclear steam supply system and balance of plant that supported the generation of power have been retired in place and are being prepared for removal. The SSCs that remain operable are associated with the SFPs and the spent fuel building, are needed to meet other regulatory requirements, or are needed to support other site facilities (e.g., radioactive waste handling, ventilation and air conditioning, etc.). No remaining active SSCs are classified as safety-related.

During reactor decommissioning, the principal radiological risks are associated with the storage of spent fuel onsite. 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 financial protection 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. On a case-by-case basis, licensees undergoing decommissioning have been granted permission to reduce the required amount of primary offsite financial protection from \$450 million to \$100 million, and to withdraw from the industry retrospective rating plan.¹ One of the technical criteria for granting the exemption is elimination of the possibility of a design-basis event that could cause significant offsite damage.

¹ See Memorandum from William D. Travers, Executive Director for Operations, to the Commission, dated August 16, 2002 (ADAMS Accession No. ML030550706).

In its September 16, 2015, exemption request, SCE discusses both design-basis and beyond design-basis events involving irradiated fuel stored in the SFPs. The staff independently evaluated the offsite consequences associated with various decommissioning activities, design basis accidents, and beyond design basis accidents at SONGS, in consideration of its permanently shut down and defueled status. The possible design-basis and beyond design basis accident scenarios at SONGS show that the radiological consequences of these accidents are greatly reduced at a permanently shut down and defueled reactor, in comparison to a fueled reactor. Further, the staff has used the offsite radiological release limits established by the U.S. Environmental Protection Agency (EPA) early-phase Protective Action Guidelines (PAGs) of one roentgen equivalent man (rem) at the exclusion area boundary in determining that any possible radiological releases would be minimal and would not require precautionary protective actions (e.g., sheltering in place or evacuation), which could result in offsite liability.

The only beyond design-basis event that has the potential to a significant radiological release at a decommissioning reactor is a zirconium fire. The zirconium fire scenario is a postulated, but highly unlikely, beyond design-basis accident scenario that involves loss of water inventory from the SFP, resulting in a significant heat-up 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 SONGS has been permanently shut down.

The licensee provided a detailed analysis of the events that could result in an offsite radiological release at SONGS in its March 31, 2014, submittal to the NRC (ADAMS Accession No. ML14092A332), as supplemented by letters dated September 9,

October 2, October 7, October 27, November 3, and December 15, 2014 (ADAMS Accession Nos. ML14258A003, ML14280A265, ML14287A228, ML14303A257, ML14309A195, and ML14351A078, respectively). One of these beyond design-basis accidents involves a complete loss of SFP water inventory, where cooling of the spent fuel would be primarily accomplished by natural circulation of air through the uncovered spent fuel assemblies. The licensee's analysis of this accident shows that by August 31, 2014, air-cooling of the spent fuel assemblies will be sufficient to keep the fuel within a safe temperature range indefinitely without fuel cladding damage or offsite radiological release. The NRC staff has confirmed the reduced risks at SONGS by comparing the generic risk assumptions in the analyses in NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," dated February 28, 2001 (ADAMS Accession No. ML010430066) to site-specific conditions at SONGS; based on this assessment, the staff determined that the risk values in NUREG-1738 bound the risks presented by SONGS.

The Commission has previously authorized a lesser amount of financial protection, based on an analysis of the zirconium fire risk. 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 staff outlined a policy for reducing required liability insurance coverage for decommissioning reactors, and 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. The discussions in SECY-93-127 centered primarily on the public health and safety risks associated with storing fuel in spent fuel pools. In its Staff Requirements Memorandum dated July 13, 1993 (ADAMS Accession No. ML003760936), the Commission approved a policy that would permit reductions in

financial protection, when a licensee was able to demonstrate that the spent fuel could be air-cooled if the SFP was drained of water.

Upon demonstration of this technical criterion, the Commission policy allowed decommissioning licensees to withdraw from participation in the industry retrospective rating plan, and permitted reductions in the required amount of primary financial protection from \$450 million to \$100 million. The staff has used this technical criterion to grant similar exemptions to other decommissioning reactor licensees (e.g., Maine Yankee Atomic Power Station, published in the *Federal Register* on January 19, 1999 (64 FR 2920); and Zion Nuclear Power Station, published in the *Federal Register* on December 28, 1999 (64 FR 72700)). Additional discussions of other decommissioning reactor licensees that have received exemptions to reduce their primary insurance level to \$100 million is provided in SECY-96-256, "Changes to Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w)(1) 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 the Spent Fuel Pool," dated June 4, 2001 (ADAMS Accession Nos. ML003721626 and ML011450420, respectively), the 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 air-cooling is one measure that demonstrates when the probability of a zirconium fire would be exceedingly low. However, the staff has more

recently used an additional analysis that would bound an incomplete drain down of the SFP water, or some other catastrophic event (such as a complete drainage of the SFP with rearrangement of spent fuel rack geometry and/or the addition of rubble to the SFP). The analysis postulates that decay heat transfer from the spent fuel via conduction, convection, or radiation would be impeded. This analysis is often referred to as an adiabatic heat-up analysis.

The licensee's analyses referenced in its exemption request demonstrates that under conditions where the SFP water inventory has drained completely and only air-cooling of the stored irradiated fuel is available, after August 2014 air-cooling of the spent fuel assemblies will be sufficient to keep the fuel within a safe temperature range indefinitely without fuel cladding damage or offsite radiological release. However, a portion of the air-cooling analyses credits operation of the normal fuel building ventilation systems because the fuel building structures are robust and offer little potential for natural air exchange with the environment for cooling. Because the normal fuel building ventilation could become unavailable during an initiating event that would lead to complete SFP drainage (i.e., a seismic event), the NRC staff also relied upon the additional time that the fuel in the SONGS SFPs has had to cool since the plant was permanently shutdown in June 2013 during its evaluation of the licensee's exemption request.

As discussed in the staff response to a question in SECY-00-0145, "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 another question in SECY-00-0145:

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.

Although the official certifications for permanent cessation of power operations and permanent removal of fuel from the reactor vessel were not submitted until June 2013, the staff notes that SONGS was in an extended outage to address steam generator issues, and neither SONGS, Units 2 nor 3, have produced power since January 2012. This additional storage time for the fuel in the SONGS SFPs has allowed it to cool for greater than the 5 years suggested in SECY-00-0145, which supports the conclusion that zirconium fire risks from the irradiated fuel stored in the SFPs is of negligible concern and exemption from the requested requirements is warranted.

In addition to the air-cooling scenario, the licensee's adiabatic heat-up analyses demonstrate that as of October 12, 2014, there would be at least 17 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. The licensee states that for this loss of all cooling scenario, 10 hours is sufficient time for personnel to respond with additional resources, equipment, and capability to restore cooling to the SFPs, even after a non-credible, catastrophic event.

As provided in SCE's letters dated October 7 and December 15, 2014, the licensee furnished information concerning its makeup strategies, in the event of a loss of SFP coolant inventory. The multiple strategies for providing makeup to the SFPs include: using existing plant systems for inventory makeup; an internal strategy that

relies on installed fire water pumps and service water or fire water storage tanks; or an external strategy that uses portable pumps to initiate makeup flow into the SFPs through a seismic standpipe and standard fire hoses routed to the SFPs or to a spray nozzle. These strategies will be maintained by a license condition until such time as all fuel has been moved to dry storage in an onsite ISFSI. The licensee states that the equipment needed to perform these actions are located onsite, and that the external makeup strategy (using portable pumps) is capable of being deployed within 2 hours. The licensee also stated that, considering the very low-probability of beyond design-basis accidents affecting the SFPs, these diverse strategies provide defense-in-depth and time to mitigate and prevent a zirconium fire, using makeup or spray into the SFP before the onset of zirconium cladding rapid oxidation.

In the safety evaluation of the licensee's request for exemptions from certain emergency planning requirements dated June 4, 2015 (ADAMS Accession No. ML15082A204), the NRC staff assessed the SCE accident analyses associated with the radiological risks from a zirconium fire at the permanently shutdown and defueled SONGS site. The NRC staff has confirmed that under conditions where cooling air flow can develop, suitably conservative calculations indicate that by the end of August 2014, the fuel would remain at temperatures where the cladding would be undamaged for an unlimited period. The staff also finds that the additional cooling time provided for the fuel between January 2012 and the issuance of this exemption provides reasonable assurance that zirconium fire risks from the irradiated fuel stored in the SFPs is of negligible concern. For the very 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, 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 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 additional 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 spent fuel pool 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 have been granted to other permanently shutdown and defueled power reactors, upon demonstration that the criterion of the zirconium fire risks from the irradiated fuel stored in the SFP is of negligible concern. Finally, the staff notes that in accordance with the SONGS PSDAR, all spent fuel will be removed from the SFPs and moved into dry storage at an onsite ISFSI by the end of 2019, and the probability of an initiating event that would threaten SFP integrity occurring before that time is extremely low, which further supports the conclusion that the risk of a zirconium fire is negligible.

The Exemption is Authorized by Law

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 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, as amended, other laws, or the Commission's regulations, which require licensees to maintain adequate financial protection. Therefore, the proposed exemption for SONGS from the primary offsite liability insurance and secondary financial protection requirements of 10 CFR 140.11(a)(4) is authorized by law.

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 consequences of nuclear incidents at permanently shutdown and decommissioning reactors.

In SECY-93-127, SECY-00-0145, and SECY-01-0100 provide a basis for allowing 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 operating reactors, and the associated potential for offsite financial liabilities from an accident are commensurately less. The licensee has analyzed and the staff has confirmed that the possible accidents that could result in an offsite radiological risk are minimal, thereby justifying the proposed reductions in offsite 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 be problematic for SCE because the licensee would incur financial liability if an

extraordinary nuclear incident occurred at another nuclear power plant. Because SONGS is permanently shut down, it does not produce revenue from electricity generation sales to cover such a liability. Therefore, such liability, if incurred, could significantly affect the financial resources available to the facility to conduct and complete radiological decontamination and decommissioning activities. Furthermore, the shared financial risk exposure to SCE is greatly disproportionate to the radiological risk posed by SONGS when compared to operating reactors.

The reduced overall risk to the public at decommissioning power plants does not warrant SCE 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 and exemptions approved for other decommissioning reactors. Thus, the underlying purpose of the regulations will not be adversely affected by reductions in the insurance coverage for SONGS.

Accordingly, the proposed exemption for SONGS from the primary offsite liability insurance and secondary financial protection requirements of 10 CFR 140.11(a)(4) is in the public interest.

Environmental Considerations

Pursuant to 10 CFR 51.22(c)(25), the granting of an exemption from the requirements of any regulation in Chapter I of 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 are among those identified in 10 CFR 51.22(c)(25)(vi).

The NRC staff has determined that approval of the exemption request involves no significant hazards consideration because reducing the licensee's offsite liability requirements at the decommissioning San Onofre Nuclear Generating Station, Units 2 and 3, 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 SONGS. 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 involved an accident) or accident mitigation; therefore, there is no significant increase in the potential for, or consequences from, 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. The requirement for offsite liability insurance may be viewed as involving surety, insurance, or indemnity matters in accordance with 10 CFR 51.22(c)(25)(vi).

Therefore, pursuant to 10 CFR 51.22(b) and 10 CFR 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 SCE exemption from the requirement of 10 CFR 140.11(a)(4) to permit the licensee to reduce primary offsite liability insurance to \$100 million, accompanied by withdrawal from participation in the secondary insurance pool for offsite liability insurance.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 5th day of January, 2018.

For the Nuclear Regulatory Commission.

Gregory Suber, Deputy Division Director,
Division of Decommissioning, Uranium Recovery
and Waste Programs,
Office of Nuclear Material Safety and Safeguards.

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