



NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-205, 361, and 362; NRC-2020-0254]

Southern California Edison; San Onofre Nuclear Generating Station, Units 1, 2, and 3

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) staff is issuing an exemption in response to a request dated September 1, 2020, from the Southern California Edison (SCE), for San Onofre Nuclear Generating Station, Units 1, 2, and 3 (SONGS), from the requirement to investigate and report to the NRC when SCE does not receive notification of receipt of a shipment, or part of a shipment, of low-level radioactive waste within 20 days after transfer from the SONGS facility. SCE requested the time period to receive acknowledgement that the shipment has been received by the intended recipient be extended from 20 to 45 days. SCE requested this change to avoid an excessive administrative burden, because its operational experience indicates that these shipments may take more than 20 days to reach their destination.

DATES: The exemption was issued on November 13, 2020.

ADDRESSES: Please refer to Docket ID **NRC-2020-0254** 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-2020-0254**. Address questions about Docket IDs in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail: Jennifer.Borges@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **The 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 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Amy M. Snyder, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-6822, e-mail: Amy.Snyder@nrc.gov.

SUPPLEMENTARY INFORMATION: The text of the exemption is attached.

Dated: November 13, 2020

For the Nuclear Regulatory Commission.

Bruce Watson,

Chief,

Reactor Decommissioning Branch,

Division of Decommissioning, Uranium Recovery and Waste Programs,

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NUCLEAR REGULATORY COMMISSION

Docket No. 50-205, 361, and 362

Southern California Edison

San Onofre Nuclear Generating Station, Unit 1, 2, and 3

Exemption from Certain Low-Level Waste Shipment Tracking Requirements of

10 CFR Part 20, Appendix G, Section III.E

I. Background.

San Onofre Nuclear Generating Station (SONGS), Units 1, 2, and 3, are licensed to the Southern California Edison (SCE)¹ under title 10 of the *Code of Federal Regulations* (10 CFR) part 50 (license no. DPR-13, NPF-10, and NPF-15, respectively, and docket nos. 50-206, 50-361, and 50-362, respectively). The SONGS facility is located 4 miles southeast of San Clemente, California, in San Diego County, California. SONGS Units 1, 2 and 3, are decommissioning nuclear power reactor units located in San Diego County, California, approximately 62 miles southeast of Los Angeles, and approximately 51 miles northwest of San Diego, on an 84-acre site located entirely within the Camp Pendleton Marine Corps Base.

Unit 1, a Westinghouse 3-loop pressurized water reactor constructed by Bechtel and rated at 1,347 MWt, began commercial operation on January 1, 1968, and permanently ceased operation on November 30, 1992. The unit was initially placed in SAFSTOR until 2000 when active decommissioning (DECON) began.

SONGS, Unit 1, was granted its provisional operating license by the U.S. Nuclear Regulatory Commission (NRC) on January 1, 1968 and ceased operation on November 30, 1992. The licensee completed defueling on March 6, 1993 (ADAMS Accession No. [ML13319B055](#)), and maintained the unit in deferred decontamination, or SAFSTOR, until June 1999, when it initiated active decommissioning and dismantlement, or DECON (ADAMS

¹ SONGS is jointly owned by SCE (78.21 percent), San Diego Gas & Electric (20 percent), and the city of Riverside (1.79 percent). SCE is authorized to act as agent for the other co-owners and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

Accession No. [ML13319B111](#)). On December 28, 1993 (ADAMS Accession No. [ML13319B059](#)), the NRC approved the Permanently Defueled Technical Specifications for SONGS, Unit 1. 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 10 CFR 50.82, "Termination of license," 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 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. Dismantlement of SONGS, Unit 1, was essentially completed by 2009 and most of the structures have been removed and sent to a nuclear waste disposal facility. Certain below-grade structures were abandoned in place and any void spaces filled. SCE then constructed the original approved ISFSI for the temporary storage of SONGS Unit 1 SNF. SCE elected to address decommissioning of these remaining remnants until after all SNF has been removed and the approved ISFSI can be demolished. NRC issued a license amendment in 2010 releasing the offshore portions of the Unit 1 cooling intake and outlet pipes under the Pacific Ocean seabed, leaving them in place for unrestricted use. SONGS Unit 1 decommissioning work yet to be completed includes the demolition of the Unit 1 share of the ISFSI after the SNF is removed. All SONGS Unit 1 fuel (except for 270-unit 1 spent fuel assemblies that were shipped to GE-Hitachi in Morris, Illinois between period from 1972 to 1980 for wet storage) are in dry storage at the onsite ISFSI. The NRC previously approved Technical Specifications that reflect the transfer of all SONGS, Unit 1, spent fuel into dry storage (ADAMS Accession No. [ML042660363](#)).

Units 2 and 3 reactors are Combustion Engineering (CE) 2-loop pressurized water reactors designed by Bechtel and rated at 3,438 Megawatt thermal (MWt) (1070/1080 Megawatt electric (MWe). In February and November 1982, NRC granted operating licenses

for Units 2 and 3. Units 2 and 3 began operations in August 1983 and April 1984, respectively. SONGS Units 2 and 3 were shut down in January 2012 due to issues with the replacement steam generators.

By letter dated June 12, 2013 (ADAMS Accession No. [ML131640201](#)) SCE submitted a certification to the NRC indicating its intention to permanently cease power operations at SONGS, Units 2 and 3, as of June 7, 2013, pursuant to 10 CFR 50.82(a)(1)(i). By letters dated June 28, 2013 (ADAMS Accession No. [ML13183A391](#)), and July 22, 2013 (ADAMS Accession No. [ML13204A304](#)), SCE submitted permanent removal of fuel certifications, pursuant to 10 CFR 50.82(a)(1)(ii), for the Unit 3 and Unit 2 reactor vessels on October 5, 2012, and July 18, 2013, respectively. Upon docketing of these certifications, the SONGS, Units 2 and 3, facility operating licenses no longer authorize operation of the reactors or emplacement or retention of fuel into the reactor vessels pursuant to 10 CFR 50.82(a)(2). By letter dated September 23, 2014 (ADAMS Accession No. [ML14272A121](#)), SCE submitted the PSDAR for SONGS, Units 2 and 3. The PSDAR outlined the decommissioning activities for SONGS, Units 2 and 3. The NRC staff reviewed the PSDAR in a letter dated August 20, 2015 (ADAMS Accession No. [ML15204A383](#)).

By application dated December 15, 2016 (ADAMS Accession No. [ML16355A014](#)), the licensee requested changes to the SONGS Facility Operating Licenses and Technical Specifications to reflect the removal of all spent nuclear fuel from the SONGS, Units 2 and 3, spent fuel pools and their transfer to dry cask storage within an expanded onsite ISFSI. The changes also make conforming revisions to the SONGS, Unit 1, Technical Specifications and combine them with the SONGS, Units 2 and 3, Technical Specifications. These changes more fully reflect the current status of the facility, as well as the reduced scope of structures, systems, and components necessary to ensure plant safety once all spent fuel has been permanently moved to the SONGS ISFSI, an activity that was completed in August 2020. By letter dated August 7, 2020 (ADAMS Accession No. [ML20227A044](#)), SCE certified that all spent nuclear fuel assemblies were permanently transferred out of the SONGS spent fuel pool and placed in storage within the onsite ISFSI.

On May 7, 2020, SCE submitted a revised PSDAR and Irradiated Fuel Management Plan for the SONGS Units 2 and 3 in accordance with 10 CFR 50.82(a)(7) (ADAMS Accession No. [ML20136A339](#)). The NRC staff reviewed this submittal and had no further comments (ADAMS Accession No. [ML20267A526](#)). By the end of 2028, the licensee is expected to complete all decommissioning work necessary to obtain NRC approval to reduce the Part 50 license site footprint to the ISFSI area only and to allow partial release of the SONGS site for unrestricted future use.

Inherent to the decommissioning process, large volumes of low-level radioactive waste are generated. This low-level waste requires processing and disposal or only disposal. SCE will transport, by truck or by mixed mode shipments like a combination of truck and rail, low-level radioactive waste from the facility to locations such as the waste disposal facility operated by Waste Control Specialists in Andrews, Texas and the one operated by Energy Solutions in Clive, Utah. The estimated license termination date for SONGS Units 2 and 3, except for the ISFSI, is 2030. The site restoration activities will be completed by 2033. The licensee projects that all decommissioning activities, to include the remnants of Unit 1, will be completed by 2051, approximately 2 years after the removal of the last spent fuel from the SONGS ISFSI (ADAMS Accession No. [ML20136A339](#)).

II. Request/Action.

By letter dated September 1, 2020 (ADAMS Accession No. [ML20255A083](#)), SCE requested an exemption from 10 CFR part 20, appendix G, "Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests," section III.E. for transfers of low-level radioactive waste from the SONGS facility.

Section III.E requires that the shipper of any low-level radioactive waste to a licensed land disposal or processing facility must investigate and trace the shipment if the shipper has not received notification of the shipment's receipt by the disposal or processing facility within 20 days after transfer. In addition, section III.E requires licensees to report such investigations to the NRC. SCE is specifically requesting an exemption from the requirements in 10 CFR part 20, appendix G, section III.E, under the provisions of 10 CFR 20.2301, "Applications for

exemptions.” SCE seeks to extend the 20 day time period for SCE to receive notification that the shipment was received to 45 days after transfer for a rail or mixed mode shipment from SONGS facility to the intended recipient, before having to investigate and report such shipments to the NRC.

III. Discussion.

A. The Exemption is Authorized by Law.

The NRC’s regulations in 10 CFR 20.2301 allow the Commission to grant exemptions from the requirements of the regulations in 10 CFR Part 20 if it determines the exemption would be authorized by law and would not result in undue hazard to life or property. There are no provisions in the Atomic Energy Act of 1954, as amended (or in any other Federal statute) that impose a requirement to investigate and report on low-level radioactive waste shipments that have not been acknowledged by the recipient within 20 days of transfer. Therefore, the NRC staff concludes that there is no statutory prohibition on the issuance of the requested exemption and the NRC is authorized to grant the exemption by law.

B. The Exemption Presents no Undue Hazard to Life and Property.

The purpose of 10 CFR Part 20, appendix G, section III.E is to require licensees to investigate, trace, and report radioactive shipments that have not reached their destination, as scheduled, for unknown reasons.

SCE states that “[I]t has been It has been SONGS’s experience, similar to those at other decommissioning facilities that have shipped large quantities of waste to offsite disposal facilities, that rail shipments can routinely take longer than 20 days for various reasons that cannot be anticipated nor avoided.” The NRC staff notes a past example of a planned shipment from SONGS that would exceed 20 days in which a one-time exemption from the investigation and reporting requirements of 10 CFR Part 20, appendix G, section III.E was granted (ADAMS Accession No. [ML031400384](#)). The NRC staff also notes that the Unit 1 reactor pressure vessel low level waste shipment to Clive, UT took more than 20 days (ADAMS Accession No. [ML20188A388](#)). In addition, SCE reported on October 16, 2020, as required by 10 CFR Part 20, Appendix G, Section III.A.9, that a low-level waste shipment had not been received in 20 days due to rail

scheduling. Based on these past reports, the NRC staff concludes that delays due to rail scheduling are likely to recur.

Further, SCE states that the requested exemption "... is similar to the ones previously approved by the NRC, namely: Fort Calhoun Station on June 30, 2020 (ref. [ML20162A155](#)), Vermont Yankee Nuclear Power Station on February 5, 2020 (ref. [ML20017A069](#)), La Crosse Boiling Water Reactor facility on May 2, 2017 (ref. [ML17124A210](#)), and Zion Nuclear Power Station Units 1 and 2 on January 30, 2015 (ref. [ML15008A417](#)).” The NRC staff reviewed these other exemption requests and notes that all of the facilities noted above are reactors facilities undergoing decommissioning. The NRC staff agrees that these exemption requests are similar to the exemption requested by SCE. In addition, SCE stated that “the NRC staff in SECY-18-055, (ref. 1 and [ML18012A022](#)), has proposed rulemaking to amend 10 CFR 20, Appendix G, Section 111.E to allow a 45-day notification window based on operating experience that show this is a reasonable delay for low-level waste shipments.” The NRC staff agrees that the proposed rulemaking that SCE references does propose to amend 10 CFR Part 20, appendix G, Section 111.E to allow a 45-day notification window based on operating experience, which shows this is a reasonable delay for low-level waste shipments. The NRC staff agrees that a 45-day notification window based on operating experience is a reasonable delay for low-level waste shipments from reactor decommissioning facilities.

In its request, SCE stated that SCE takes actions during the preparation of shipments to predict and mitigate undesirable conditions as much as possible, encountered delays can often extend the shipping duration beyond the requisite 20 days. SCE states that exceeding the 20-day shipment duration results in an administrative burden. SCE states the burden is a result of the required investigations and reporting, even though shipments continue to be under requisite controls.

SCE is in the process of decommissioning SONGS Units 2 & 3. During reactor decommissioning, large volumes of slightly contaminated debris are generated and require disposal. SCE will be transporting low-level radioactive waste from the SONGS facility to distant locations such as the waste disposal facility operated by Waste Control Specialists in Andrews, Texas and by

Energy Solutions in Clive, Utah. SCE plans to ship most of the waste to these disposal facilities or intermediate processors via rail.

SCE indicated in its application that, due to the complex scheduling and congestion on the planned rail systems, delays beyond the estimated durations are often encountered after the waste leaves site. Rail shipments may sit at a remote railyard waiting for clearance to depart or for maintenance of a railcar in need of repair; either of which creates delays that can extend the estimated shipping durations from SONGS and are outside of the shipper's, (i.e., SCE's) controls. Administrative processes at the disposal facility and mail delivery times can add several additional days.

Low-level radioactive waste shipments from the SONGS facility can take longer than 20 days to reach a waste disposal facility. The delay is not the result of loss, but a consequence of the complexity involved in shipping large components. In addition, the NRC staff is aware of shipping industry practices that could result in shipping durations exceeding 20 days due to issues not specifically related to the transport of large components, such as rail cars containing LLW in switchyards waiting to be included in a complete train to the disposal facility. According to SCE, "in terms of potential effect on a member of the public, the number 1 cause of delays is coordination with the rail carriers. When these delays happen, the shipment is generally within a railyard and not near a member of the public or a public place. The only way a shipment would remain in a public place for an unusual amount of time is if there was a problem with the transport vehicle or the rail system." The NRC staff notes that the shipments are compliant with the Department of Transportation and NRC requirements for transportation of low-level radioactive packaging, placarding and radiation levels for health and safety purposes during transit including during switchyard staging. Furthermore, the shipments are under control of the shipper at all times, tracked by the licensee, and periodically monitored by the licensee, as needed. Therefore, there are no potential health and safety concerns associated with this material sitting in a switchyard for an extended period of time.

Based on the history of low-level radioactive waste shipments from SONGS and the lack of potential health and safety concerns associated with this material sitting in a switchyard for extended period of time, the need to investigate, trace and report on shipments that take longer

than 20 days but not longer than 45 days is therefore inappropriate. The NRC staff believes that the application of 45 days as an upper bound is appropriate for the same reasons as presented in the proposed rulemaking (page 158, [ML18012A022](#)).

As indicated in the request for exemption, for rail shipments from SONGS, SCE will use a tracking system that allows daily monitoring of a shipments' progress to its destination and SONGS shipping procedures prescribe the expectations for tracking and communications during transit. The NRC staff believes these steps will allow for monitoring the progress of the shipments by the rail carrier on a daily basis, if needed, in lieu of the 20-day requirement and will initiate an investigation as provided for in Section III.E after 45 days. Because of the oversight and the ability to monitor low-level radioactive waste shipments throughout the entire journey from SONGS to a disposal or processing site noted above, the NRC staff concludes that it is unlikely that a shipment could be lost, misdirected, or diverted without the knowledge of the carrier or SCE and there is no potential health and safety concern presented by the requested exemption. Furthermore, by extending the elapsed time for receipt acknowledgment to 45 days before requiring investigations, tracing, and reporting, a reasonable upper limit on shipment duration is maintained if a breakdown of normal tracking systems were to occur.

Consequently, the NRC staff finds that extending the receipt of notification period from 20 to 45 days after transfer of the low-level radioactive waste as described by SCE in its September 1, 2020, letter would not result in an undue hazard to life or property.

C. The Exemption is Subject to a Categorical Exclusion

With respect to compliance with Section 102(2) of the National Environmental Policy Act, 42 USC 4332(2) (NEPA), the NRC staff has determined that the proposed action, the approval of the SCE exemption request, is within the scope of the categorical exclusion listed at 10 CFR 51.22(c)(25). The proposed action presents (i) no significant hazards considerations; (ii) would not result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) would not result in a significant increase in individual or cumulative public or occupational radiation exposure; (iv) has no significant construction impact; (v) does not present a significant increase in the potential for or consequences from

radiological accidents. The requirements from which an exemption is sought involves reporting requirements under 10 CFR 51.22(c)(25)(vi)(B) as well as inspection or surveillance requirements under 10 CFR 51.22(c)(25)(vi)(C). Given the applicability of relevant categorical exclusions, no further analysis is required under NEPA.

IV. Conclusions.

Accordingly, the Commission has determined that, pursuant to 10 CFR 20.2301, the exemption is authorized by law and will not result in undue hazard to life or property. Therefore, effective immediately, the Commission hereby grants SCE an exemption from 10 CFR part 20, appendix G, section III.E to extend the receipt of notification period from 20 days to 45 days after transfer for rail or mixed-mode shipments of low-level radioactive waste from Units 1, 2, and 3 from the SONGS facility to a licensed land disposal or processing facility.

Dated at Rockville, Maryland, this 13th day of November.

For the Nuclear Regulatory Commission.

/RA/

Patricia K. Holahan, Director,
Division of Decommissioning, Uranium Recovery
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