Via email
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Community Engagement Panel Members &
Southern California Edison Management
San Onofre Nuclear Generating Station
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Subject: Disposal of Decommissioned Material and Non-radioactive Waste to La Paz, Arizona

Dear CEP Members and SONGS Management,

I listened to the August 28th 2025, SONGS Community Engagement Panel (CEP) virtual meeting.

I apologize for not being familiar with SONGS personnel, decommissioning contractor personnel, or CEP members. I was, at times, unable to distinguish who was saying what, therefore in several references to statements made below, I am not able to attribute the statements to specific individuals.

I had emailed a question prior to the meeting asking why all non-radioactive waste is being exported out-of-state to other states. The response was that this policy or philosophy was the preferred alternative in the CEQA required EIR prepared by the California State Lands Commission (CSLC). I must admit that I had never heard of the California State Lands Commission and was not aware of its authority over nuclear decommissioning or waste disposal in California. I therefore conducted some brief research into the CSLC.

Text below, quoted from other sources, is in blue italics.

California State Lands Commission

Perusal of the CSLC website states that the CSLC *"manages 4 million acres of tide and submerged lands and the beds of natural navigable rivers, streams, lakes, bays, estuaries*

inlets and straits." [1] Contrary to what the commission's name might suggest, it mostly has authority of land underwater. Since the California land area is approximately 105 million acres, the CSLC has authority over slightly less than 4% of California's land.

The Commission also has authority over proximate land above water as described in the following . "*The Commission oversees sovereign land granted in trust to about 70 local jurisdictions, which are predominantly prime waterfront lands, coastal waters, and the lands underlying California's five major ports. Through its actions, the Commission secures and safeguards the public's access rights to navigable waterways and the coastline and preserves irreplaceable natural habitats for wildlife, vegetation, and biological communities.*" [2] I will not question why there appears to be significant redundancy with the California Coastal Commission!

Nowhere on the CSLC's website is there evidence of its expertise and/or authority over nuclear decommissioning or resulting waste disposal, with the exception of references to the SONGS EIR.

CSLC EIR for SONGS Decommissioning [3]

The Notice of Availability for the EIR [4] identifies the CSLC as the *"lead agency for the proposed Project under the California Environmental Quality Act (CEQA)."* However, with the exception that the CSLC contracted out the EIR to the Aspen Environmental Group, [5] involvement of CSLC in SONGS decommissioning appears to be minimal to non-existent.

The Executive Summary of the Final EIR [6] includes some significant limitations on the geographical scope and authority of the CSLC.

- *"[Applicant] plan[s] to decommission components of San Onofre Nuclear Generating Station (SONGS) that are authorized by CSLC Lease No. PRC 6785.1, which hereinafter is referred to as the* ***CSLC Lease Facilities****. The CSLC Lease Facilities are the: SONGS Units 2 and 3 offshore intake and discharge conduits and associated appurtenances; navigational and environmental monitoring buoys; and riprap along the shore seaward of the ordinary high-water mark."*

[1] https://www.slc.ca.gov/about/
[2] Ibid.
[3] https://www.slc.ca.gov/ceqa/san-onofre/
[4] https://www.slc.ca.gov/wp-content/uploads/sites/355/2019/02/SONGS_NOA-NOI.pdf
[5] https://www.aspeneg.com/projects/songs
[6] https://www.slc.ca.gov/wp-content/uploads/sites/355/2019/02/SONGS_ExecSumm_Final.pdf

- *"The onshore portion of SONGS lies within the boundaries of the Marine Corps Base Camp Pendleton (MCBCP) under real estate agreements between the Participants and the U.S. Government, Department of Navy (DoN). The DoN-owned land where decommissioning related work would occur includes an approximately 84-acre easement for the primary nuclear facilities (DoN Easement); two leased parcels adjacent to the DoN Easement, including parking lots and laydown/storage land comprising approximately 15 acres; and easements for an access road and rail spur (Onshore Site). The 21 acres of tide and submerged lands in the Pacific Ocean, southwest of the Onshore Site (Offshore Site), include the majority of the CSLC Lease Facilities area."*
- *"Decommissioning of the majority of the CSLC Lease Facilities (CSLC Lease Offshore Activities) is part of a larger action … to address U.S. Nuclear Regulatory Commission (NRC) and landowner requirements to decommission SONGS, which is hereinafter referred to as the* ***SONGS Decommissioning Plan****. As proposed by the Participants, the SONGS Decommissioning Plan has the following three components: (1) activities related to a separate, already-approved ISFSI project, (2) activities associated with dismantlement of onshore above-grade structures, meeting NRC requirements for unrestricted use, and (3) the CSLC Lease Offshore Activities offshore intake and discharge conduits."*
- *"The geographic scope of this EIR covers both onshore and offshore activities that would be performed during the Proposed Project, not only decommissioning activities involving the CSLC Lease Facilities. Many of these activities, particularly those occurring onshore and those related to upland plant decommissioning and radiological decontamination, are beyond the CSLC's jurisdiction. This is because: (1) CSLC's jurisdiction at SONGS is seaward of the ordinary high-water mark; (2) onshore activities at SONGS are on federal (DoN)-owned lands; and (3) NRC has complete oversight and compliance authority over the decommissioning of U.S. nuclear power plants, including radiological aspects of decommissioning."*
  [Underlines added for emphasis]

Clearly, the above limitations of the scope of CSLC's authority are appropriately limited to the Offshore underwater intake and discharge conduits and the seawall system. The FEIR acknowledges that the majority of the decommissioning project involving the radiological characterization, demolition, waste segregation and removal, is under the regulatory authority of the U.S. NRC, and not CSLC. In CSLC's defense, CEQA requires that the

preparation of any EIR requires the "complete project" to be evaluated even though the majority of the nuclear decommissioning is clearly out-of-scope for CSLC.

FEIR Section 4.1.2 Regulatory Setting [7]

"The NRC has complete oversight and compliance authority over the decommissioning of U.S. nuclear power plants, which includes on-going inspection and monitoring of all liquid and airborne radiological releases at SONGS and review of decommissioning plans (see Section 1.2.1.2, U.S. Nuclear Regulatory Commission). This exclusive jurisdiction over the radiological aspects of decommissioning preempts states and state agencies, including CSLC, from imposing any regulatory requirements related to radiation hazards or nuclear safety (see Section 1.2.1.3, Federal Preemption)." [Underlines added for emphasis]

The waste surveys and segregation discussed in the following section involves federal NRC guidelines for determining what are the various categories of radioactive waste (SNF, HLW and LLW) and non-radioactive waste. This cannot be pre-empted by State law, regulation or edict. In the same vein, the disposition of the non-radioactive waste that was defined by this federal process cannot be, after-the-fact, determined by State law, regulation or edict.

FEIR Section 5.3.11 In-State Disposal of Non-Radioactive Waste and Recycling [8]

This section addresses the crux of the issue of in-state vs. out-of-state disposal of non-radioactive waste.

- *"This alternative was considered to reduce adverse air quality, greenhouse gas (GHG), and transportation and traffic impacts by reducing waste transport distances."*
- *"Under the Proposed Project, SCE would ship all waste generated by the Proposed Project outside of California for disposal, including sending non-radioactive waste to a nearby out-of-state facility, potentially in La Paz County, Arizona. This is consistent with SCE's interpretation of Executive Order D-62-02, which states that the Water Boards shall take all necessary steps to impose a moratorium on the disposal of decommissioned materials into California's Class III landfills and unclassified waste management units, as described in California Code of Regulations, Title 27, sections 20260 and 20230, and that this moratorium shall remain in effect until the Department of Health Services*

[7] https://www.slc.ca.gov/wp-content/uploads/sites/355/2019/02/SONGS_FEIR_Volume2_Feb2019.pdf#page=204. Section 4.1.2
[8] https://www.slc.ca.gov/wp-content/uploads/sites/355/2019/02/SONGS_FEIR_Volume2_Feb2019.pdf#page=550. Section 5.3.11

completes an assessment of the public health and environmental safety risks associated with the disposal of decommissioned materials and its regulations setting dose standards for decommissioning take effect." [Underlines added for emphasis]

What the FEIR fails to acknowledge is that the D-62-02 [9] prohibition on disposal of decommissioned material to Class III and unclassified waste management units, also implicitly, does not prohibit, and therefore permits, disposal of decommissioned material to California Class I hazardous waste landfills and California Class II landfills. D-62-02 did NOT mandate that all decommissioned material and non-radioactive waste be shipped out-of-state. Indeed, between 2002 and 2013, following implementation of D-62-02, Boeing disposed of decommissioned material from the Santa Susana Field Laboratory (SSFL) to California Class 1 hazardous waste disposal sites, including Kettleman Hills and Buttonwillow, in full compliance with Executive Order D-62-02 and with full approval of DTSC, DOE, and CDPH/RHB and the disposal sites themselves. [10]

The Radiologic Health Branch of the California Department of Health Services (later renamed the Department of Public Health), failed to prepare an EIR setting dose standards for decommissioning akin to the NRC's 25 mrem/y License Termination Rule.

Section 5.3.11.1 of the FEIR goes on to say,

- *"However, Executive Order D-62-02 focuses on landfill disposal of decommissioning materials and does not address recycling/reuse. Therefore, under this alternative, non-radioactive wastes meeting NRC limits, such as concrete, asphalt, and steel, would be recycled as appropriate using local construction recycling yards, to the extent space is available."*
- *"While current local regulations (see Section 4.8.2, Greenhouse Gas Emissions – Regulatory Setting) require recycling of construction materials, these conflict with Executive Order D-62-02 with respect to the SONGS decommissioning."*

The sustainable objectives of recycling and waste minimization appropriately promoted by CalRecycle, do not conflict with D-62-02 because D-62-02 does not address recycling and does not prohibit recycling in or out of California. One cannot invent a prohibition when one does not exist. Section 5.3.11.2 of the FEIR continues,

[9] https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/7943-7945.pdf. Executive Order D-62-02
[10] https://www.energy.gov/sites/default/files/2023-10/Shipments_of_Decommissioned_Material_to_Kettleman_Hills_Rev_3.pdf.

> *"Furthermore, Executive Order D-62-02 does not specify the acceptable level of radioactivity for placement of materials into California landfills, whereas this alternative assumes meeting NRC limits would be sufficient. As such, this alternative is considered infeasible until the appropriate State agency (Regional Water Quality Control Board or CalRecycle) specifies an acceptable level of radioactivity for decommissioning materials to be placed in California landfills. Therefore, the in-state disposal of non-radioactive waste and recycling is eliminated from further analysis."*

On the contrary, D-62-02 DOES specify acceptable levels or radioactivity in its first paragraph.

> *"WHEREAS, the Federal Nuclear Regulatory Commission has determined that residual radioactive material below twenty-five millirems poses no significant risk to public health."*

Typical surface and volumetric contamination release criteria employed by NRC[11,12,13,14], DOE[15], and CDPH/RHB and specified in national standard ANSI/HPS-N13.12.13-2013 are equivalent to 1 millirem/year or less, significantly less than 25 millirem/year License Termination Rule of 10 CFR 20.1402. [16] And typically, the majority of measurements in release surveys are non-detects as a consequence of ALARA.

Again, one cannot invent a prohibition when one does not exist. In contrast to the illogicality of the FEIR Section 5.3.11.2 argument above, D-62-02 reminded the State of its obligation to establish dose-based decommissioning standards as ordered by Judge Gail Ohanesian in California Superior Court Case 001CS01445 in 2002.[17] The State (CDPH Radiologic Health Branch) has failed to comply with the Judge's order and D-62-02's order for the last twenty-three years and is unlikely to do so in the foreseeable future. SONGS cannot honestly expect radiological release/clearance criteria to be issued by two state

[11] https://www.nrc.gov/docs/ML0037/ML003740243.pdf. Regulatory Guide 1.86
[12] https://www.nrc.gov/docs/ML0630/ML063000243.pdf#page=149. NUREG-1757, Sections 15.11.1.1 and 15.11.1.2
[13] https://www.nrc.gov/docs/ML0306/ML030650166.pdf. FC 83-23
[14] https://philrutherford.com/Radiation_Cleanup_Standards/Enclosure_2_of_FC_83-23.pdf. Enclosure 2 of FC 83-23
[15] https://www.standards.doe.gov/standards-documents/1200/1241-AStd-2023/@@images/file. DOE-STD-1241-2023
[16] https://www.nrc.gov/reading-rm/doc-collections/cfr/part020/part020-1402
[17] https://www.philrutherford.com/SSFL/Nuclear_Decommissioning_at_SSFL.pdf#page=24. Section 4.0

agencies (RWQCBs and CalRecycle) that have no expertise in nuclear/radiological matters, in contrast to CDPH/RHB that definitely does have the expertise.

Therefore the logical path forward would be to use the NRC decommissioning standards that the SONGS FEIR has agreed pre-empt any state law/regulation/edict, or in this case, pre-empt any non-existent state law/regulation/edict, relating to release criteria. SONGS has washed its hands of common sense in this case. SONGS has chosen to take the easy way out and has kicked the can down the road or more precisely, thrown the political football over the fence (into Arizona).

This is a political issue, not a safety issue. I know that SONGS management does not believe that it is more important to "protect" Californians and California landfills against the imagined hazards of non-radioactive waste, than it is to protect Arizonans and Arizona landfills.

At one point, the FEIR claims that D-62-02 is not a state law based on health or safety, in a contrived effort to allow a State Executive Order to pre-empt a federal nuclear decommissioning regulation. D-62-02 is certainly not a health and safety law or regulation but is a politically expedient edict. However, let us remember that D-62-02 was Governor Davis' attempt at a compromise when a compromise was not necessary, after he vetoed Senate Bill SB-1970 (Romero). [18] SB-1970, if it had become law, would have mandated that all decommissioned material must be disposed of to an out-of-state, licensed LLRW disposal facility, because the decommissioned material was alleged to be a danger to the California population. That makes SB-1970 and Executive Order D-62-02 a health & safety potential law and edict.

SONGS has overreacted to D-62-02 and implemented a waste export policy not intended by D-62-02.

Disposal Routes and Costs

It is possible that SONGS has chosen its export policy based on cost reasons alone. California's two main Class I hazardous waste facilities are Clean Harbors Buttonwillow (200 miles from SONGS) and Kettleman Hills (245 miles from SONGS). La Paz is 300 miles from SONGS, so would have higher shipping costs, higher greenhouse gas emissions and higher traffic fatality risks. It is possible that La Paz disposal costs are less than California landfills, but I do not have disposal cost data to prove that.

[18] http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_1951-2000/sb_1970_bill_20020830_enrolled.pdf

Release Criteria

The FEIR cites NUREG-0586, "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" as applicable to SONGS decommissioning EIR. [19] That is true. NUREG-1757, "Consolidated Decommissioning Guidance", [20] is also applicable. Sections 15.11.1.1 and 15.11.1.2 of NUREG-1757 discuss release criteria of solid materials with surface and volumetric residual material for reactor and material licencees. [21] Irrespective of which of these federal NRC methods SONGS uses to survey, analyze and segregate solid waste, waste is ultimately categorized as low-level radioactive waste (sent to Energy*Solutions* in Clive, Utah), greater-than-class-C waste (sent to WCS in Andrews County, Texas), and decommissioned material. SONGS calls decommissioned material, "non-radioactive waste." [22] Both these terms imply that the material/waste has been released for unrestricted use, is no longer considered "regulated radioactive material", requires no further radiological/regulatory control, and is not a threat to public or environmental health.

SONGS has followed the federal NRC process to segregate waste but has then allowed a misreading of D-62-02, and a self-imposed prohibition of in-state disposal of decommissioned material, to pre-empt federal regulation. I have never understood the belief that Californians and California landfills deserve to be "protected" more than neighboring states.

Not In My Backyard

One response that I believe came from a CEP member could be summarized as, *"I believe that none of us would want radioactive waste to be disposed of in California."* [23] This would be an expected statement by the anti-nuclear, NIMBY crowd. I was not able to identify the speaker, but the Panel did not appear to object to that sentiment. However, it would be a strange sentiment for SONGS staff on the webinar who presumably are proud of SONGS history, performance, and supply of clean electric power to California for over four decades.

[19] https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0586/index.html
[20] https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1757/index.
[21] https://www.nrc.gov/docs/ML0630/ML063000243.pdf#page=149. Vol. 1, Rev. 2, Sections 15.11.1.1 and 15.11.1.2
[22] Since everything is radioactive, "non-radioactive waste" does contain naturally occurring radioactive material (NORM)
[23] Based on my recollection of the August 28th discussion.

Spent Nuclear Fuel

The various comments from obvious anti-nuclear members of the public expressing the wish for the spent fuel to be moved from the site apparently do not understand that the anti-nuclear opposition to Yucca Mountain is the reason why all utilities, including SCE, are required to store and monitor all their spent nuclear fuel and on-site since the federal government has failed to establish federal disposal sites for spent nuclear fuel and high level nuclear waste. The Nuclear Waste Policy Act of 1982 [24] required the federal government (DOE, EPA and NRC) to establish deep geologic repositories for the safe storage of high-level waste (HLW) and spent nuclear fuel (SNF). The federal government has failed to meet its obligations, in no small part because it allows itself to be held hostage by the anti-nuclear faction.

The dichotomy of the federally enforced, indefinite, on-site storage of spent nuclear fuel and the voluntary exporting of non-radioactive waste is laughable. The public is understandably freaked out over SONGS storing 2,000 tons of spent nuclear fuel containing ~300 million curies, in earthquake country, and less than 100 yards from rising seas and potential tsunamis. In contrast, approximately 100,000 tons of non-radioactive waste (20% of the total waste mass of 500,000 tons), [25] will be exported to Arizona because SONGS has misread Executive Order D-62-02 and/or does not wish to get involved in a messy, political, activist-led, battle over protecting California population and landfills from the "hazards" of decommissioned material.

Closing Thoughts

In answer to my question, "why is decommissioned material and non-radioactive waste being shipped to Arizona," I was told that the California State Lands Commission Environmental Impact Report had imposed a prohibition of in-state non-radioactive waste and required SONGS to ship to Arizona. This answer was a little disingenuous. In reality, neither the CSLC, nor the contractor hired to write the EIR, have much nuclear decommissioning knowledge or experience. In reality, it was likely that SONGS staff, in co-ordination with its decommissioning contractor, who imposed a self-inflicted prohibition on in-state disposal of decommissioned, "non-radioactive waste."

SCE has done serious disservice to all other licensees in California by acquiescing to the dictates of the late Dan Hirsch. Related actions by Dan Hirsch are listed below.

[24] https://www.epa.gov/laws-regulations/summary-nuclear-waste-policy-act
[25] Based on my recollection of the August 28th discussion.

- It was Hirsch who was the lead opposition to the establishment of Ward Valley, a LLRW disposal site in California, and likely co-authored AB-2214 (2002), that ultimately killed Ward Valley.[26]
- In 2002, it was Hirsch who co-authored SB-1970 that attempted to mandate that all decommissioned material be classified, managed, and disposed of to a licensed LLRW disposal site.[27]
- In 2013, it was Hirsch who supported litigation to prevent Boeing/DTSC/CDPH from sending decommissioned material to California Class I hazardous disposal sites in full compliance with Executive Order D-62-02. After a 10-year litigation, California Courts denied the plaintiffs, found in favor of the defendants, and found that decommissioned material was no longer "regulated radioactive material" and could not be arbitrarily alleged by plaintiffs to be LLRW.[28]
- In 2020, it was Hirsch who pressured DTSC to force DOE to dispose of decommissioned material and debris from non-radiological buildings to the Energy*Solutions* LLRW disposal site in Clive Utah.[29]

Between 2002 and 2013, Boeing disposed of decommissioned material to California Class I hazardous waste disposal sites, in full compliance with Executive Order D-62-02 and with full approval of DTSC, DOE, CDPH/RHB and the disposal sites.

I believe it would be in the public interest for the CEP and SONGS staff to discuss SCE's self-inflicted prohibition on disposal of decommissioned material and non-radioactive waste in California Class I or II landfills, at an upcoming public meeting.

Sincerely,

Phil Rutherford

[26] https://philrutherford.com/CalRadForum/ward_valley.html
[27] https://philrutherford.com/SSFL/Nuclear_Decommissioning_at_SSFL.pdf#page=26. Section 5.2
[28] https://philrutherford.com/SSFL/Nuclear_Decommissioning_at_SSFL.pdf#page=61. Section 19.0
[29] https://philrutherford.com/SSFL/Nuclear_Decommissioning_at_SSFL.pdf#page=61. Section 23.0

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