

Raymond Lutz
CitizensOversight, Inc.
771 Jamacha Rd, #148
El Cajon, CA 92019
raylutz@citizenoversight.org
voice: 619-820-5321



Irvine City Council, Larry Agran, Mayor
irvinecitycouncil@cityofirvine.org

October 22, 2025

REF: M2037

Dear Mayor Agran:

I read the Orange County Register coverage of the City Council's discussion on San Onofre's spent fuel. I am an engineer who has led technical and policy work on this topic for many years with Citizens' Oversight Projects, and I'd like to offer my expertise and a practical path the City can support.

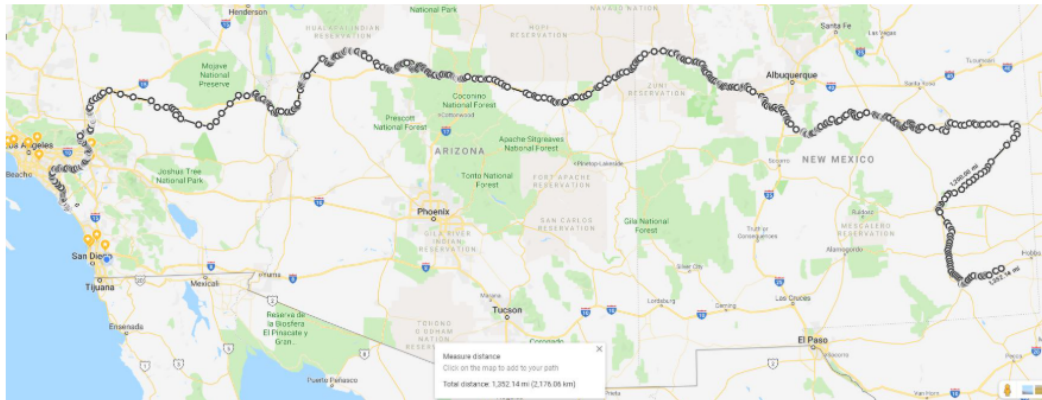
Context. Federal repository plans (e.g., Yucca Mountain) remain uncertain and federal implementation could take many decades. At present, it appears that Yucca Mountain may never open at all. The current canisters at San Onofre are difficult to move long distances and are not designed for millennia-scale storage. In this reality, the region needs (1) a safer near-term location and (2) a durable, monitored standard for the long term.

Consolidated Interim Storage (CIS) Canceled

Until recently, there was momentum behind transporting San Onofre's fuel ~1,350 miles by rail to a private CIS site in New Mexico or Texas. However, **on October 9, 2025, Holtec International announced it is abandoning its New Mexico CIS project, citing an "untenable path forward" given state opposition and legislative constraints.** See ["Holtec Walks away from nuclear waste project in New Mexico"](#) We are not optimistic that this will be restarted and we are not supportive of this option.

Near-Term Action: "Pendleton Option"

A practical solution is to relocate the spent-fuel canisters from the current coastal location (approximately 100 feet from the ocean, adjacent to I-5 and adjacent to one of the nation's busiest intercity rail corridors) to a suitable safer site on Marine Corps Base Camp Pendleton. This limits transport to roughly 10 miles along controlled corridors, reduces exposure to coastal hazards, shortens schedules, and does not depend on uncertain external facilities (e.g., a private CIS site or a future federal repository).



Overall rail route to the proposed New Mexico site is about 1,350 miles



Proposed location is about 5 miles from the coast and away from the public

The ocean and beaches up and down the coast are a treasure that must NOT be contaminated by radioactive waste.

The “Pendleton Option” offers the most practical, risk-reducing path to secure the inventory away from the shoreline and above plausible future sea-level rise. It relies on proven equipment and procedures -- no new technology is required -- and can begin with standard planning steps:

- **City action:** Sponsor a resolution urging near-term relocation to a qualified Camp Pendleton site and requesting state/federal partners to expedite required

analyses and agreements. We hope other cities will join in the effort.

- **Interagency coordination:** Initiate scoping with USMC, NRC, California agencies, SCE/SDG&E, and local jurisdictions on routing, security, and permitting.
- **Technical due diligence:** Commission a focused feasibility study covering transport logistics, schedule, cost, environmental review, and the dual-wall overpack approach to be used upon arrival at Pendleton.

These steps position the City to advance a prudent, implementable plan that materially reduces regional risk while longer-term federal solutions are pursued.

Implementation approach (design and canister strategy)

Use the same vertical canister/underground ISFSI configuration now deployed at San Onofre (Holtec) for the Pendleton site (but these are still stored on the surface when compared with a deep repository like Yucca Mountain). Retain the existing welded, sealed inner canisters as the primary boundary; achieve maintainability with dual-wall, replaceable overpacks consistent with the HELMS framework (see below). Some repackaging analysis will be required because San Onofre also has an older horizontal (NUHOMS) ISFSI with different dimensions; the goal is to accommodate both systems within a common underground design while minimizing repackaging.

Governance and coordination

The Navy and Marine Corps already host the regional nuclear footprint. While a spent-fuel ISFSI is outside their primary training mission, relocating inland within Camp Pendleton aligns with base protection and regional safety. Early coordination would be required among **USMC/DoN, NRC, California agencies, SCE/SDG&E, and the site operator (e.g., Holtec).**

Benefits of this option:

1. Relocates away from the shoreline to higher ground (e.g., >400 ft elevation) to reduce exposure to coastal hazards and long-horizon sea-level rise.
2. Increases standoff from the Newport-Inglewood/Rose Canyon fault compared with the current beachside location.
3. Minimizes repackaging by preserving welded inner canisters and using dual-wall overpacks.
4. Moves entirely within the Camp Pendleton footprint on secured, low-speed roads.
5. Reuses proven movement methods already used to transfer fuel from pools to the existing ISFSI.

6. Enables completion in months after site readiness, versus multi-year interstate rail logistics to a now-canceled CIS facility.
7. Occupies a limited footprint (on the order of three acres).

Issues to resolve:

1. Select a precise inland site on Camp Pendleton that avoids conflicts with training and existing infrastructure.
2. Define commercial/operational arrangements (e.g., management and monitoring services by the ISFSI vendor) and any remuneration to the Navy and/or operator.
3. Engineer a qualified access route with grades and pavement capacity for ~100-ton loads using shielded transport overpacks.
4. Finalize an integration strategy for both Holtec (vertical) and NUHOMS (horizontal) canister systems at the new facility.
5. Obtain NRC approvals for the facility design, licensing basis, and transport/handling procedures.
6. Establish funding from the decommissioning trust, supplemented by federal reimbursements related to DOE's delay in accepting fuel (Yucca Mountain non-performance), and identify any state/federal grants to accelerate site readiness.

See comparative analysis: <https://copswiki.org/Common/M1908>. Given the number of stakeholders and dependencies, it is prudent to begin scoping this option immediately.

Although this is framed as a near-term solution (~100+ years), it is effectively multi-generational and depends on sustained administrative control (security and monitoring). A deep geologic repository -- if ever realized -- was envisioned as a "close-and-forget" approach; our regional reality requires durable, monitored surface storage. For context, prior Yucca Mountain analyses contemplated decades of surface aging to reduce heat load and active ventilation of underground tunnels for an extended period, contrary to a simple 'seal-and-forget' concept. Storage on the surface means that even if the canisters are in underground vaults, they still can cool for many decades passively by circulating air from the surface.

HELMS framework. To meet a goal of safe storage for over 1,000 years, I propose adopting a Hardened, Extended-life, Monitored, Surface (HELMS) configuration: today's welded inner canisters remain sealed, placed within a dual-wall, replaceable overpack with continuous monitoring. The outer shell serves as a sacrificial boundary that can be inspected and, if needed, replaced while preserving the welded inner boundary. For Pendleton, vaults should be sized to accept these dual-wall overpacks so the existing canisters can be encapsulated without breaching the inner canisters.

Properly designed underground vaults that already exist as part of the Holtec design may themselves provide substantial protection and should be evaluated as part of the HELMS implementation to obtain the dual-wall design.

More details: <https://copswiki.org/Common/HelmsProposal> (white paper and NRC petition).

Requested City Actions

1. **Sponsor a City resolution** urging near-term relocation of San Onofre canisters to a qualified Camp Pendleton site and requesting federal/state partners to expedite required analyses, permits, and agreements.
2. **Convene a public technical briefing** (with City staff, SONGS Decommissioning Solutions, NRC, USMC, and independent experts) within 60 days to scope the Pendleton feasibility, transportation plan, HELMS dual-wall overpack strategy that avoids breaching inner canisters, monitoring requirements, funding, and schedule.

I am available to brief your office and participate in a study session. Thank you for your leadership in focusing attention on a durable, safety-first solution.

Sincerely,



Ray Lutz
Citizens' Oversight Projects (COPs)
citizenoversight.org
619-820-5321

References (selected)

- OC Register coverage of Irvine Council discussion (Sep. 30, 2025).
<https://www.ocregister.com/2025/09/30/irvine-city-council-takes-up-san-onofre-nuclear-waste-safety-concerns>
- Pendleton Option overview: <https://copswiki.org/Common/M1908>
- HELMS overview: <https://copswiki.org/Common/HelmsProposal>
- HELMS white paper (PDF):
https://copswiki.org/w/pub/Common/HelmsProposal/HELMS_document_-_NRC_Petition_Version_v13.pdf

- NRC petition (PDF):
https://copswiki.org/w/pub/Common/HelmsProposal/NRC_HelmsPetition_FINAL.pdf
- ["Holtec Walks away from nuclear waste project in New Mexico"](https://www.reuters.com/business/energy/holtec-walks-away-nuclear-waste-project-new-mexico-2025-10-09/) --
<https://www.reuters.com/business/energy/holtec-walks-away-nuclear-waste-project-new-mexico-2025-10-09/>