**Compilation of Email Communications**
**6/16/21 to 8/26/21**

# Letters and Article on Nuclear Waste Storage from National Academies of Sciences Journal – Issues in Science and Technology

**From:** Lorraine Quinn Sandstrom
**Sent:** Thursday, August 26, 2021 2:38 PM
**To:** David Victor; Dan Stetson; Martha McNicholas; Michelle Anderson; Mike Balsamo; Lisa Bartlett; Garry Brown; Jim Desmond; Chris Duncan; Rob Howard; Sam Jammal; Marni Magda; Val Mecedo; Ted Quinn; Mark Riddlebarger; John Taylor; Mel Vernon; Michael Villar; Laura Ferguson; Kristal Jabara; Mike Sappingfield; Ken Schultz; Doug Woodyard
**Cc:** Tom Isaacs; Manuel Camargo
**Subject:** Letters and article on nuclear waste storage from National Academies of Sciences journal - Issues in Science and Technology

*SENT ON BEHALF OF CEP CHAIR DAVID VICTOR*

Dear CEP Members,

Tom Isaacs passed along his letter to the **Issues in Science & Technology**, the quarterly journal of the US National Academies of Sciences, Engineering, and Medicine. His letter looks at issues centrally important to us in the CEP with regard to the strategy for consolidated interim storage and moving the spent fuel offsite. Other letters look at overlapping topics, as does the main article to which these letters are responding. Thus, we attach the whole packet.

All best wishes,

David

**Attachment 1 - Letters and article on nuclear waste storage from National Academies of Sciences - Issues in Science and Technology, Vol. XXXVII, No. 4, Summer 2021**
**~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~**

# San Diego County Board of Supervisors Supports ASFSN

**From:** Manuel Camargo
**Sent:** Tuesday, August 17, 2021 6:09 PM
**To:** David Victor; Daniel Stetson; Martha McNicholas; Michelle Anderson; Mike Balsamo; Lisa Bartlett; Garry Brown; Jim Desmond; Chris Duncan; Rob Howard; Sam Jammal; Marni Magda; Val Mecedo; Ted Quinn; Mark Riddlebarger; John Taylor; Mel Vernon; Michael Villar; Laura Ferguson; Kristal Jabara; Mike Sappingfield; Ken Schultz; Darren M. Gretler; Dinwiddie, James
**Cc:** Jackie Littler; Veronica Ferencz; Marisol Edrozo; Tanya Flink; Nicole Perez; Doug Bauder; Lorraine Quinn Sandstrom; Liese Mosher; John Dobken; James Peterson

**Subject:** San Diego County Board of Supervisors Supports ASFSN Coalition

Hello CEP members and alternates,

For your awareness, the San Diego County Board of Supervisors today unanimously approved a resolution of support for the *Action for Spent Fuel Solutions Now* coalition. Supervisor Jim Desmond—coalition Co-Chair and CEP member—put forth the resolution together with Supervisor Terra Lawson-Remer. Among the participants in public comment today were Orange County Supervisor/coalition Co-Chair/CEP member Lisa Bartlett, as well as a representative from LiUNA Local 89.

Similar resolutions of support have been adopted by the Orange County Board of Supervisors, the Capistrano Unified School District, and the San Clemente City Council. Broad support from local elected leaders will be helpful as the coalition grows and advocates for federal action to help get spent fuel at SONGS relocated to a licensed offsite facility.

A news release about the Board vote by the coalition is available HERE.

Best regards,

Manuel

Manuel C. Camargo Jr.
Principal Manager, Strategic Planning
SONGS Decommissioning
Southern California Edison
www.SONGScommunity.com

**No attachment. Direct links within text.**
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# Cost and Usefulness of CEP Panel – Public Comment

**From:** David G. Victor
**Sent:** Thursday, June 17, 2021 6:05 PM
**To:** Bart Ziegler; NUCCOMM
**Cc:** Cathy Iwane; Alice McNally; Peter Andersen Chair; Steve Mosko; Gary Headrick; Roger Johnson; Ray Lutz; Shari Horne; Jimi Jay; H. Willieyams; Sarah Brady; Charles Langley; Nina Babiarz; Sabina Vitale; Michael Ravenwood; Lorraine Quinn Sandstrom; Daniel T. Stetson; Martha McNicholas
**Subject:** (External):Re: cost and usefulness of a CEP panel - PUBLIC COMMENT

**\*\*\* EXTERNAL EMAIL - Use caution when opening links or attachments \*\*\***
Thank you, Bart. By copy I ask Lorraine to include your note in the next circular of materials sent to all CEP members. David

**From:** Bart Ziegler
**Date:** Thursday, June 17, 2021 at 5:38 PM
**To:** NUCCOMM**;** David G. Victor;
**Cc:** Cathy Iwane; Alice McNally; Peter Andersen; Steve Mosko; Gary Headrick; Roger Johnson;
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# Compilation of Email Communications
**6/16/21 to 8/26/21**

Ray Lutz; Shari Horne; Jimi Jay; H. Willieyams; Sarah Brady; Charles Langle; Nina Babiarz; Sabina Vitale; Michael Ravenwood
**Subject:** cost and usefulness of a CEP panel - PUBLIC COMMENT

note: Tonight's San Onofre ***Community Engagement Panel*** will include Zoom comment from Paul Blanch, with compelling new information regarding safety issue.
As one of nation's foremost nuclear engineers with 50+ years of nuclear engineering and registered professional nuclear engineer in CA, Paul Blanch blew the whistle on Millstone and Pilgrim nuclear plants, the Indian Point high pressure gasline issue, and now San Onofre.

Dear CEP,

Perhaps it would be the job of a competent planner to arrange for a community's engagement panel that 1) truly engages in a community and 2) supports the community concerns surrounding Edison's 3. 6 million pounds of high-level nuclear waste at San Onofre. From all I hear, your CEP falls short despite intentions. Is that budgetary?

Edison's nuclear waste and their dumpsite has been poorly planned since Edison selected Holtec's thin metal cans [unapproved for transport], which are welded shut without inside and out monitoring for corrosion, and with no ability to inspect the fuel inside. Buried in the beach surrounded by a corrosive marine environment, there is no emergency evacuation plan in event of a 'black swan' event i.e. terror attack, tsunami, earthquake, or canister rupture/breach.

Due to Edison's poor planning and execution, their waste (Edison's waste) remains for the coming century.

A genuine, honest community engagement panel should openly discuss every Edison nuclear waste dump problem/issue, then deal with them proactively instead of kicking the can down the road for another century until irreversible damage is done.

Thank you,
Bart Ziegler

Bart Ziegler PhD, Community and Environmental Medicine
President, Samuel Lawrence Foundation
P.O. Box F, Del Mar, CA 92014 USA
Office 858.481.1673 | Mobile 619.300.1097
Website | Instagram | Twitter | Facebook | LinkedIn
*Read about SLF's impact in our 2019 Annual Report*

*Samuel Lawrence Foundation is a 501(c)(3) organization, Tax ID 27-1030462*

**No attachment. Direct links within text.**
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

## In the News

July 21, 2021

# Reps. Mike Levin and Rodney **Davis Announce Formation of Bipartisan Spent Nuclear Fuel Solutions Caucus**

**Washington, D.C**. – Today, U.S. Representative Mike Levin (D-CA) and Rodney Davis (R-IL) announced the formation of their Spent Nuclear Fuel Solutions Caucus, a bipartisan group of House members who will drive progress on the safe storage, transportation, and disposal of spent nuclear fuel across the country.

There are approximately 80 locations in 34 states across the country where spent nuclear fuel is stored after it is removed from a commercial nuclear reactor. Additionally, 25 of these sites are co-located with nuclear power plants that are no longer in use, some of which have even been completely dismantled. The current system of spent nuclear fuel storage is not sustainable, particularly for sites that no longer have operating reactors and could be redeveloped for other beneficial uses. It is also a violation of the promise, codified decades ago, that the federal government would take title to the waste in return for ratepayers' contributions to the Nuclear Waste Fund.

The Spent Nuclear Fuel Solutions Caucus seeks to address the challenges associated with stranded commercial spent fuel across the country. It is a forum for Members who care about solving all commercial spent fuel issues, where Members can come together to

make progress regardless of whether or not they have a preferred solution.

“It is my great hope that this Spent Nuclear Fuel Solutions Caucus will serve as a foundation and conversational starting point for other Members, like myself, who care deeply about solving commercial spent fuel issues on behalf of our constituents, the nation, and our planet,” **said Rep. Levin.** “I am optimistic that with support from this caucus, we can make strides in finally getting the waste at San Onofre, an issue that has plagued my district for years, off our coast as quickly and safely as possible.”

“I support an all-of-the-above approach to energy. A critical part of that is nuclear power and addressing the full lifecycle of nuclear, which includes finding a long-term storage solution for spent nuclear fuel,” **said Rep. Davis.** “There are dozens of locations across the country, including the Clinton Power Station in DeWitt County, that store spent nuclear fuel. In many of those locations, long-term storage is not feasible, which adds to the urgency of finding a long-term storage solution. This is about protecting public safety and ensuring the viability of nuclear power stations in the communities they serve, including Clinton. That’s why I’m proud to join my colleague Congressman Mike Levin in forming the Spent Nuclear Fuels Solution Caucus. It’s our hope that this bipartisan caucus serves as a starting point to finding a solution to this very important issue.”

Other members of the bipartisan Spent Nuclear Fuel Solutions Caucus include Reps. Sara Jacobs (D-CA), Michelle Steel (R-CA), Scott Peters (D-CA), Jared Huffman (D-CA), Chellie Pingree (D-ME), Salud Carbajal (D-CA), Mondaire Jones (D-NY), and Suzanne Bonamici (D-OR).

To see more on the caucus, click here or follow @SpentFuelCaucus on Twitter.

**No attachment. Direct links within text.**
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# Judge: Safety at retired San Onofre plant not dependent on preserving spent fuel pools

## Nonprofit's legal challenge is rejected in a tentative ruling that upholds the Coastal Commission's decision to issue a permit to dismantle the plant.

By **TERI SFORZA** | tsforza@scng.com | Orange County Register
PUBLISHED: June 21, 2021 at 4:12 p.m. | UPDATED: June 21, 2021 at 7:08 p.m.

The focus of the conflict — at least right now — is on two 40-foot-deep pools attached to those twin, iconic domes perched on the bluff over the blue Pacific.

Their job, for the past 40 or so years, has been to cool extremely hot nuclear fuel. But the San Onofre Nuclear Generating Station powered down nearly a decade ago, and all the spent fuel has cooled enough to leave those pools behind. Now the waste is in stainless steel canisters ensconced in a "concrete monolith" that critics deride as a "beachfront nuclear waste dump," but experts say is much safer. And there it will remain until the federal government finds a permanent home for nuclear waste, or a private company gets permission to store it somewhere else.

The essential question before a judge is this: Should those pools remain standing at San Onofre — to protect life and property in case something goes horribly awry with those dry canisters — even as everything else at the plant is torn down?

The U.S. Nuclear Regulatory Commission has said no. San Onofre operator Southern California Edison has said no. The California State Lands Commission and the California Coastal Commission, which approved permits allowing Edison to tear the plant down, relied on that expertise and said no.

But a lawsuit against the Coastal Commission filed by the Samuel Lawrence Foundation, a small nonprofit in San Diego County, argues that the experts got it wrong and the Coastal Commission erred in approving the permit that allows destruction of the pools, saying they must be preserved for public safety.

In a tentative decision issued last week, though, a judge concluded otherwise.

"(T)he court finds Petitioner has not met its burden of demonstrating error on any alleged failure of the Coastal Commission," wrote Los Angeles County Superior Court Judge Mitchell L. Beckloff in a tentative opinion.

"That is, substantial evidence shows — even after dismantling the spent fuel pools — safe storage and transport alternatives for (radioactive waste) exist."

A final ruling is expected within the next several months. Edison has agreed not to do any dismantlement work on the pools in the meantime, though none was scheduled.

*The arguments*

The Samuel Lawrence Foundation argued that the Coastal Commission abused its discretion when it approved a permit for the plant's dismantling in 2019.

It made three substantive arguments, the judge said:

- That the commission "did not analyze the individual and cumulative impacts of destroying the spent fuel pools, or the environmental benefits (minimizing risk to property and life) of retaining the spent fuel pools, or using alternative spent fuel repackaging options."
- That the commission failed to proceed as required by law by putting off analysis of other on-site locations for dry storage of nuclear waste.
- And that the commission allowed the plant's decommissioning without a way to ensure that the waste canisters remain transportable in the future.

"To be clear, the challenge here is to the adequacy of the analysis used by the Coastal Commission," the judge wrote. "The issues before this court on this action are not about the wisdom of the manner in which SONGS will be decommissioned."

Shouts and apocalyptic predictions peppered the meeting where the commission approved the permit in 2019, but it is just one in an alphabet soup of agencies wielding power over the dismantling, from the NRC to the California State Lands Commission and more.

The NRC and Lands Commission approved various aspects of Edison's plans before it came to the Coastal Commission, and the commission relied on the work of those agencies when it unanimously granted a permit with 18 special conditions, including annual progress reports and a speedier deadline for Edison's inspection and maintenance program.

The commission was within its rights when it relied on the other agencies' expertise to conclude that spent fuel pools aren't necessary to ensure safety, the judge said.

*Better tech*

The NRC has allowed every decommissioned nuclear plant in the nation to remove pools once all waste is in dry storage, and there are better technologies to address damaged containers in the unlikely event that's needed, the opinion noted.

Those include "grinding to the root" if a crack is shallow, remote welding if a crack is larger, transferring a canister to an "oversized overpack" on site, licensing and installing a "hot cell" on site, or transferring canisters to another facility for repackaging.

"The NRC also noted that corrosion cracking of stainless steel materials is a slow developing and well understood phenomenon and a through wall crack of a canister from stress corrosion cracking would take decades to develop," the judge wrote.

Dry storage systems have been used for more than three decades in the U.S. and there has never been a need to replace any major component or repackage waste to date, the judge wrote, noting that the potential for damage that would make canisters unsuitable for transport is unlikely.

There are also more mundane considerations: Edison's license from the NRC does not allow it to place fuel back into the pools, and the pools couldn't be spared demolition unless the bulk of the plant remains as well, because it's all interconnected.

"Southern California Edison has consistently maintained that the California Coastal Commission appropriately reached its unanimous decision granting the coastal development permit after rigorous analysis and review," spokesman John Dobken said in an emailed statement. "The dismantlement of the San Onofre Nuclear Generating Station (SONGS) continues to progress in a safe and timely manner. We look forward to the court's final ruling on this matter."

The Samuel Lawrence Foundation says the fight isn't over.

"The judge took our points under submission and the case is ongoing," said an emailed statement from President Bart Ziegler. "We look forward to a ruling from the court within 90 days."

The foundation is fully supportive of plant decommissioning, he said — it just wants to make sure it's done in a way that's most protective of coastal resources and the public. "The California Coastal Commission has not given us those assurances," Ziegler said.

**No attachment. Direct links within text.**
**~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~**

# Judge issues tentative order rejecting lawsuit to stop San Onofre nuclear plant dismantlement

**Del Mar advocacy group says Coastal Commission should not have OK'd permit**

By ROB NIKOLEWSKI
JUNE 16, 2021 6:35 PM PT - San Diego Union-Tribune
A legal challenge looking to interrupt dismantlement work at the San Onofre Nuclear Generating Station suffered an preliminary setback Wednesday.

Los Angeles County Superior Court Judge Mitchell L. Beckloff issued a tentative decision rejecting a lawsuit by the Samuel Lawrence Foundation, an advocacy group based in Del Mar, that argued the California Coastal Commission "abused its discretion" when it issued a permit allowing Southern California Edison to take down buildings and other infrastructure at the now-shuttered plant.

Beckloff has 60 to 90 days to issue a final ruling but in his 12-page tentative decision, the judge said the commission did not violate its own regulations when it OK'd the permit.

"This isn't over," said Chelsi Sparti associate director at the Samuel Lawrence Foundation. "The judge took our points under submission and the case is ongoing ... We are fully supportive of plant decommissioning. We want to make sure that it is done in a way that is most protective of coastal resources and the public. The California Coastal Commission has not given us those assurances."

Coastal Commission spokeswoman Noaki Schwartz said the commission shares the "significant concerns" raised by the foundation and urges the federal government to find a permanent repository to store nuclear waste from the plant, known as SONGS for short. "The Commission does not have jurisdiction to regulate this federal issue, however, and agrees with the court's tentative ruling."

Edison spokesman John Dobken said the commission made the correct decision when it approved the permit and the dismantlement at SONGS **"**continues to progress in a safe and timely manner. We look forward to the court's final ruling on this matter."

The heart of the complaint centers on a pair of spent fuel pools that are scheduled to be torn down.

At commercial nuclear power plants, when the highly radioactive fuel rods used to generate electricity lose their effectiveness, operators place the assemblies in a metal rack that is lowered about 40 feet into a "wet storage" pool, typically for about five years, to cool.

Edison has since taken the assemblies, placed them into stainless steel canisters and moved them in two "dry storage" facilities on the north end of the plant. One facility holds 50 canisters and another, more recently constructed site, holds 73 canisters.

Edison says the pools are unnecessary now that the spent fuel, or nuclear waste, sits in dry storage.

The Samuel Lawrence Foundation suit argues Edison should keep the pools in place in case the canisters ever get damaged or degrade over time.

"The commission is avoiding the elephant in the room and that is the transportability of the spent fuel," said Samuel Lawrence Foundation attorney Sabrina Venkus, insisting the Coastal Commission has not done enough analysis to make an informed decision.

"Nothing could be further from the truth," countered Edison attorney Edward Casey, saying the commission looked at evidence and analysis from the State Land Commission and the Nuclear Regulatory Commission when it approved the permit.

Beckloff's tentative decision sided with Edison and the commission, citing the Land Commission's environmental report that said there are "available technologies" besides a spent fuel pool to repair or replace a potentially damaged canister.

The environmental report also said keeping the pools intact was infeasible since they are interconnected to other buildings "in the heart of the plant" and would pose "significant challenges" to decontaminate and dismantle the site.

In addition, Edison says its current license with the U.S. Nuclear Regulatory Commission prohibits the company from putting the waste back into the pools.

The Samuel Lawrence Foundation argued the Nuclear Regulatory Commission provides leeway for Edison to determine how to decommission the plant and the Coastal Commission should go back and conduct its own analysis.

Beckloff's tentative decision said "the court is not authorized to determine who has the better evidence — here the issue is whether substantial evidence supports the Coastal Commission's action." And on that count, Beckloff said the commission met the evidence requirements, followed the law and "did not abuse its discretion" by issuing the permit.

The commission's 9-0 vote in October 2019 included 18 special conditions, including the establishment by Edison of an enhanced inspection and maintenance program for the canisters. The permit lasts for 20 years and allows the Coastal Commission by 2035 to revisit whether the dry storage site should be moved to another location in case of rising sea levels, earthquake risk, canister damage or other scenarios.

All told, there are 3.55 million pounds of used-up fuel in the canisters at SONGS, which is located between the Pacific and Interstate 5. The waste remains on SONGS premises because, just as seen at 121 commercial nuclear sites in 35 states, the federal government has not opened a facility to deposit it.

"I think we're all trying to push as hard as possible to get the federal government to step up and do what they should have done 40 or 50 years ago," Commissioner Dayna Bochco said at the Coastal Commission's 2019 meeting.

SONGS has not produced electricity since 2012 after a leak in a steam generator tube led to the closing of the plant.

SONGS dismantlement operations began in March 2020 and, if they proceed, are expected to take about eight years to complete. About 2 billion pounds of equipment, components, concrete and steel will be removed from the plant, which has not produced power since 2012.

The two distinctive containment domes, each 25 feet high, are scheduled to come down around 2027.

About 450,000 tons of material labeled low-level nuclear waste will be shipped — mostly by rail — to a disposal facility in Clive, Utah. Another 35 tons of low-level waste will get shipped by truck to a facility in the West Texas town of Andrews.

According to Edison's plans, all that will remain at SONGS will be two dry storage facilities, a security building with personnel to look over the waste, a seawall, a walkway connecting two beaches north and south of the plant, and a switchyard with power lines.

**No attachment. Direct links within text.**
**~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~**