

Southern California Edison is mismanaging tons of San Onofre nuclear waste – putting SoCal communities at risk

Event: San Onofre Public Engagement Panel Meeting, September 15, 2016 5:30 pm - 8:30 pm
Location: QLN Conference Center, 1938 Avenida del Oro, Oceanside, CA 92056

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September 15, 2016 (Oceanside, CA) Today, Southern California Edison hosts another public meeting about San Onofre's tons of highly radioactive nuclear waste located at the beach near the Orange and San Diego county border. Don't be distracted by promises of solutions to relocate San Onofre nuclear waste to New Mexico or elsewhere. There are many hurdles to overcome before any solution can become a reality. In the mean time, SCE continues to ignore these critical time-sensitive problems that need to be resolved soon or we may face a major disaster in Southern California that can impact our economy, health, food supply, safety and national security.

Many of us could be faced with permanent evacuation of our homes and businesses. Once airborne, radiation will go wherever the wind blows.

Southern California Edison (Tom Palmisano) and the Nuclear Regulatory Commission (Mark Lombard) know all of these issues, but the hope the waste can be moved provides a distraction so people don't pay attention to these most urgent critical problems.

The first problem we need to focus on is the NRC allows utilities to use thin-walled (1/2" to 5/8" thick) stainless steel welded spent nuclear fuel canisters they know cannot be inspected (on the inside or outside), and cannot be maintained or repaired or monitored to prevent radiation leaks and potential explosions.

SCE plans to destroy the spent fuel pools when emptied -- eliminating the only method they have to replace failing canisters.

Palmisano and Lombard also know these canisters may crack in the short-term. The NRC admits the thin-walled canisters can crack and leak from the marine environment and other factors. They know the Koeberg nuclear plant had a similar container **leak in only 17 years** with cracks up to 0.61" deep -- deeper than most thin-walled canisters. Fortunately, the Koeberg container (a water tank) did not contain spent nuclear fuel.

We don't have much time to resolve these issues. San Onofre canisters began loading in 2003. The Koeberg container leaked in 17 years. That means our risk for leaks is much higher starting in 2020. The Koeberg plant is located in a similar environment as San Onofre, near the beach with on-shore winds, surf and frequent fog -- all the conditions for cracking from the marine environment (Chloride Induced Stress Corrosion Cracking).

Each canister contains more highly radioactive Cesium-137 than released from Chernobyl.

The NRC Advisory Committee on Reactor Safeguards (ACRS) states spent fuel assemblies exposed to air can explode, particularly due to the hydrides caused by high burnup fuel used at San Onofre and elsewhere. The ACRS was referring to air exposure of fuel in the pools. Mark Lombard has not provided data that addresses whether there would be an explosion in the canisters once high burnup fuel or damaged fuel is exposed to air.

This is an urgent problem that needs raised public awareness. Our politicians will ignore this issue unless there is pressure from the public. With over 2000 of these thin-walled canisters in use, this is a major national security, economic, health and environmental issue. We have over 2000 of these *Chernobyl* cans that can start leaking and potentially exploding in the very near future.

San Onofre has 50 canisters filled with highly radioactive spent nuclear fuel and one canister filled with other highly radioactive material. SCE's plan is to use more inferior thin-walled canisters for the rest of the spent fuel assemblies currently stored in the pools. The thin-walled canisters are loaded into above or partially below ground concrete/steel structures. These structures have air vents required to cool the canisters so they don't overheat and go critical.

SCE and canister vendors have proposed putting leaking canisters inside another container (called overpacks or casks). However, the NRC has not approved such a container and Mark Lombard states no one has submitted an application for such a container. A thermal analysis would be needed to determine how long a "hot" leaking canister could be stored in another container before it would over heat. And it's unclear how anyone could get close to a leaking canister. And this Russian Doll concept doesn't lend itself to a final solution for the waste. How would it ever be transported?

Other countries use thick-walled metal casks (10" to almost 20" thick) that don't have these problems. However, Mark Lombard refuses to raise NRC minimum standards. Until the NRC raises its minimum standards, utilities will continue to buy the inferior containers and vendors are unlikely to win bids for better quality products. Some vendors make better quality products, but have trouble selling them because the U.S. has such low standards.

After Donna Gilmore (SanOnofreSafety.org) recently met with DOE Assistant Secretary John Kotek, his nuclear fuels deputy, Andrew Griffith, and former NRC Chairman Macfarlane, she learned they were not aware these thin-walled canisters cannot be inspected. This means the decision makers at the highest levels are not being given the truth about these canisters and have been given misleading information about the safety of "temporary" nuclear waste dry storage in this country.

These canisters will be a danger no matter where they are located. And historically, every attempt to create a consolidated interim storage site for spent nuclear fuel (even if approved by the NRC) has been stopped for legal, technical and/or political reasons. Tom Palmisano (SCE) knows this.

The Governor of New Mexico, based on her letter to Department of Energy Secretary Moniz, has been promised nothing will go wrong with these thin-walled canisters and she apparently believes that, even though the Waste Isolation Pilot Project (WIPP) in New Mexico had a thin-walled steel drum explode and leak plutonium into the environment and contaminated the facility. The citizens were promised there would be no problems for 10,000 years. It leaked plutonium after only 15 years. The Dept of Energy also continues to approve containers that cannot be inspected, maintained, or monitored to avoid radiation leaks.

There are also many major unresolved transport issues. The thin-walled canisters must be shipped in thick transport casks (not yet approved for transport). They are so heavy they can only be transported by rail. DOE states that the rail infrastructure issues still need to be addressed. DOT and NRC safety regulations do not allow canisters with even partial cracks to be transported, even though they are in thick metal casks. San Onofre and other U.S. nuclear plants have "high burnup" spent fuel that the NRC admits has not been proven safe in transport. The Zirconium metal cladding of the uranium fuel pellets can become brittle and shatter like glass. There a potential from explosion if the fuel assemblies are exposed to air.

References provided upon request or go to SanOnofreSafety.org

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