San Onofre Nuclear Waste Dump – Problems and Solutions

Our federal and state governments allow SoCal Edison to store tons of nuclear waste near the beach at San Onofre in unsafe thin-wall canisters vulnerable to short-term cracking and major radioactive releases into our community. Each canister contains roughly a Chernobyl nuclear disaster (e.g., C-137).

The plan is for 136 total thin-wall canisters. 80 are loaded with nuclear waste. Some already 15 years old.

Ten reasons to use thick nuclear waste storage casks

Safety Features	Thin canisters	Thick casks
1. Thick walls	1/2"- 5/8"	10"- 19.75"
2. Won't crack		√
3. Ability to repair, replace seals		√
4. Ability to inspect (inside & out)		√
5. Monitor system prevents leaks		√
6. ASME container certification		√
7. Defense in depth (redundancy)		√
8. Store in concrete building		√
9. Gamma & neutron protection	Need overpack	√
10. Transportable w/o add'l cask		√
Market leader	U.S.	World

SanOnofreSafety.org

Storage problems

- These welded thin-wall canisters (only 5/8" thick), once loaded with nuclear waste, cannot be inspected (inside or out), repaired, maintained or monitored to PREVENT radioactive releases. *No one would buy a car that didn't meet these basic safety requirements.*
- Canisters may already be cracking, yet there is no plan in place to inspect, repair or replace canisters.
- The NRC states once a crack starts, it can grow through the wall of these pressure vessels in 16 years. In hotter canisters (like the new Holtec canisters, cracks can grow much faster).

Transport problems

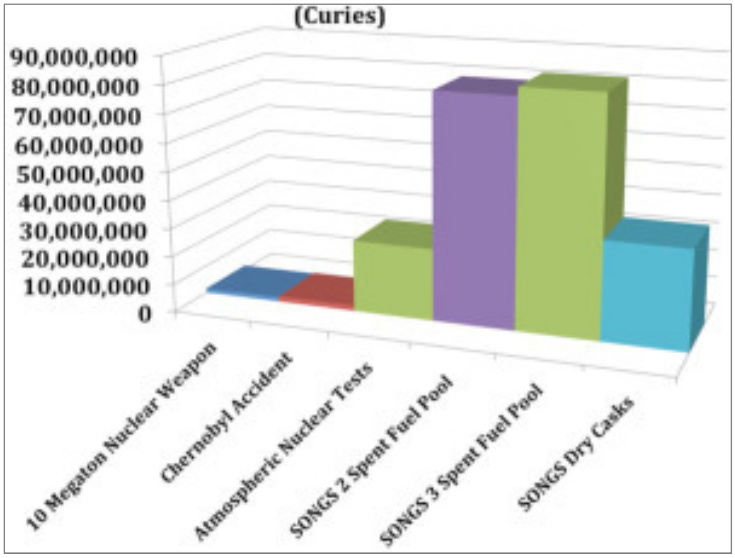
- Cracking canisters cannot be safely transported. The fuel inside needs to be inspected before transport. *Transporting in unsafe canisters will no more make us safer than rearranging the deck chairs on the Titanic would stop it from leaking.*
- Edison uses high burnup fuel (fuel that burns longer in the reactor) in spite of knowing it damages the nuclear fuel rods. The Nuclear Regulatory Commission (NRC) is still evaluating whether normal train vibrations will cause the rods to fail.

Action Needed

The President and Congress need to know about these problems. They must require the NRC

- **Step One: Stop loading nuclear waste in unsafe thin-wall canisters.**
- **Step Two: Replace existing thin-wall canisters with proven transportable thick-wall metal casks that can be maintained and monitored to prevent major cracks and radioactive releases into our environment, as required by the Nuclear Waste Policy Act of 1982.**
- **Step Three**: Store thick casks in hardened buildings on higher ground away from coastal and flooding risks. Require continuous radiation monitoring with on-line public access.
- **Oppose nuclear waste legislation that reduces our rights and safety.** Current nuclear waste bills like H.R. 3053, remove these and other critical safety requirements from the law and remove state's rights for input, oversight and transparency. They allow Edison to transfer title of the waste to the Dept. of Energy at current sites. They eliminate mandatory funding. Instead, requiring Congressional approval.

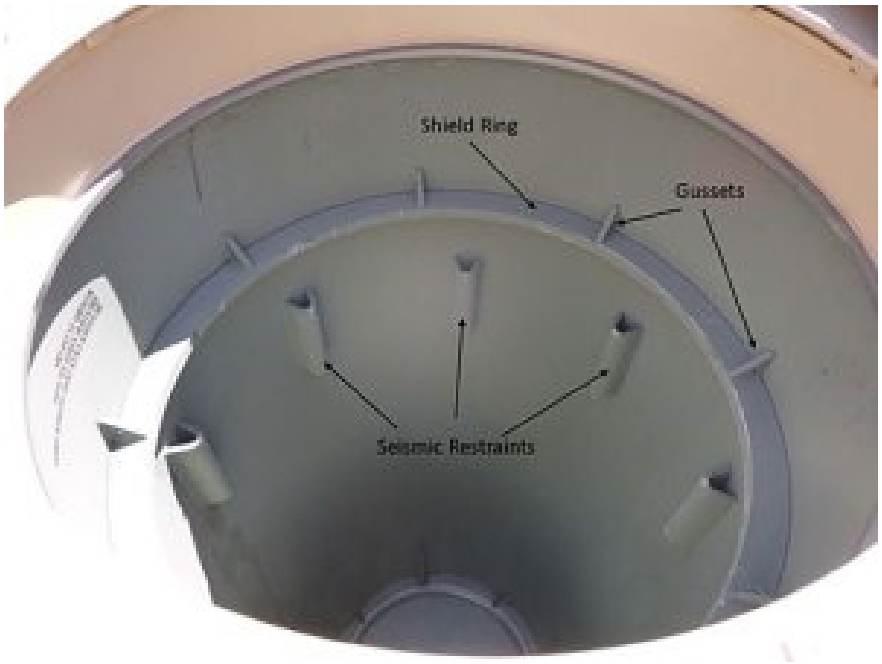
- 51 aging Areva thin-wall canisters are already loaded, some up to 15 years old. (50 spent fuel + 1 other nuclear waste (GTCC))
- 29 Holtec thin-wall canisters are loaded and **already cracking**. With 44 additional planned.
- 12 additional Areva thin-wall canisters planned with other nuclear waste (GTCC).



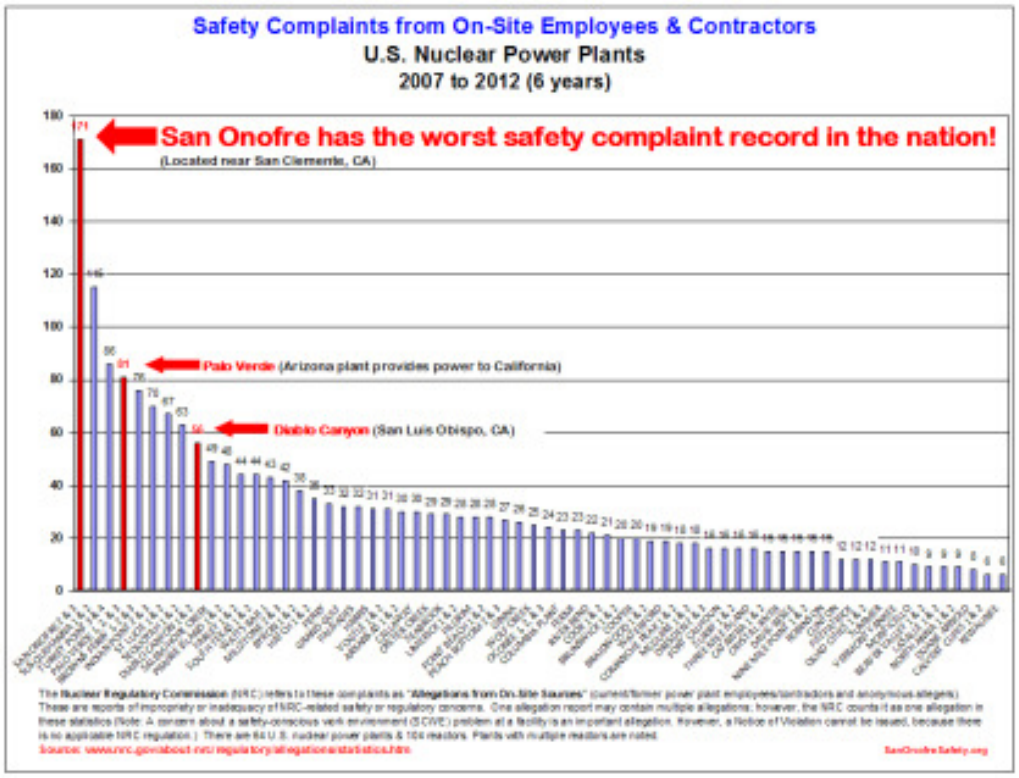
San Onofre (SONGS) has 89 times the Cesium-137 released from the Chernobyl nuclear disaster. R. Alvarez June 2013

All 29 Holtec Canisters cracking

- Cracks grow faster in hotter canisters.
- NRC and Edison ignoring the problem.
- Why did Edison continue loading and NRC allow this when they knew every canister bumped and scraped against the sides of the metal ring as it was lowered into the storage holes? Edison saves major overhead costs by destroying spent fuel pools.
- Only plan is to hide major radiation leaks and hope to turn this mess over to the federal government.



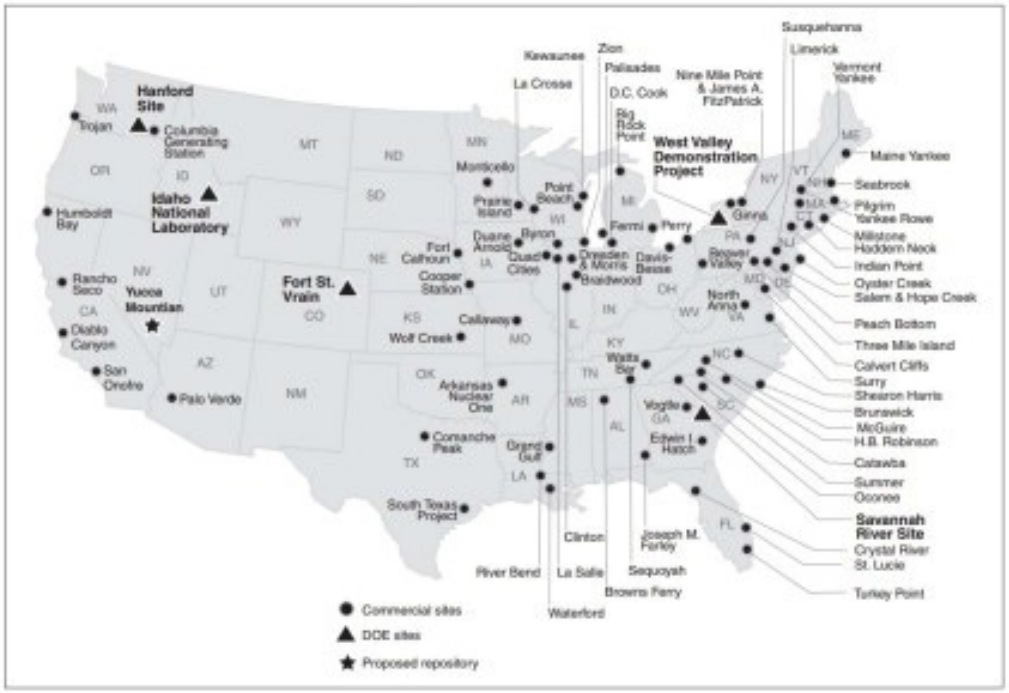
San Onofre has the Worst Safety Complain Record in the Nation



Congress proposes to send all nuclear waste for the entire country to the Southwest.

Do we really want all the nation's nuclear waste in the Southwest?

Figure 1: Current Storage Sites and Proposed Repository for High-Level Nuclear Waste



Source: DOE.

Note: Locations are approximate. DOE has reported that it is responsible for managing nuclear waste at 121 sites in 39 states, but DOE officials told us that several sites have only research reactors that generate small amounts of waste that will be consolidated at the Idaho National Laboratory for packaging prior to disposal.