

# Nuclear Power and California's Diablo Canyon

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by Daniel Hirsch

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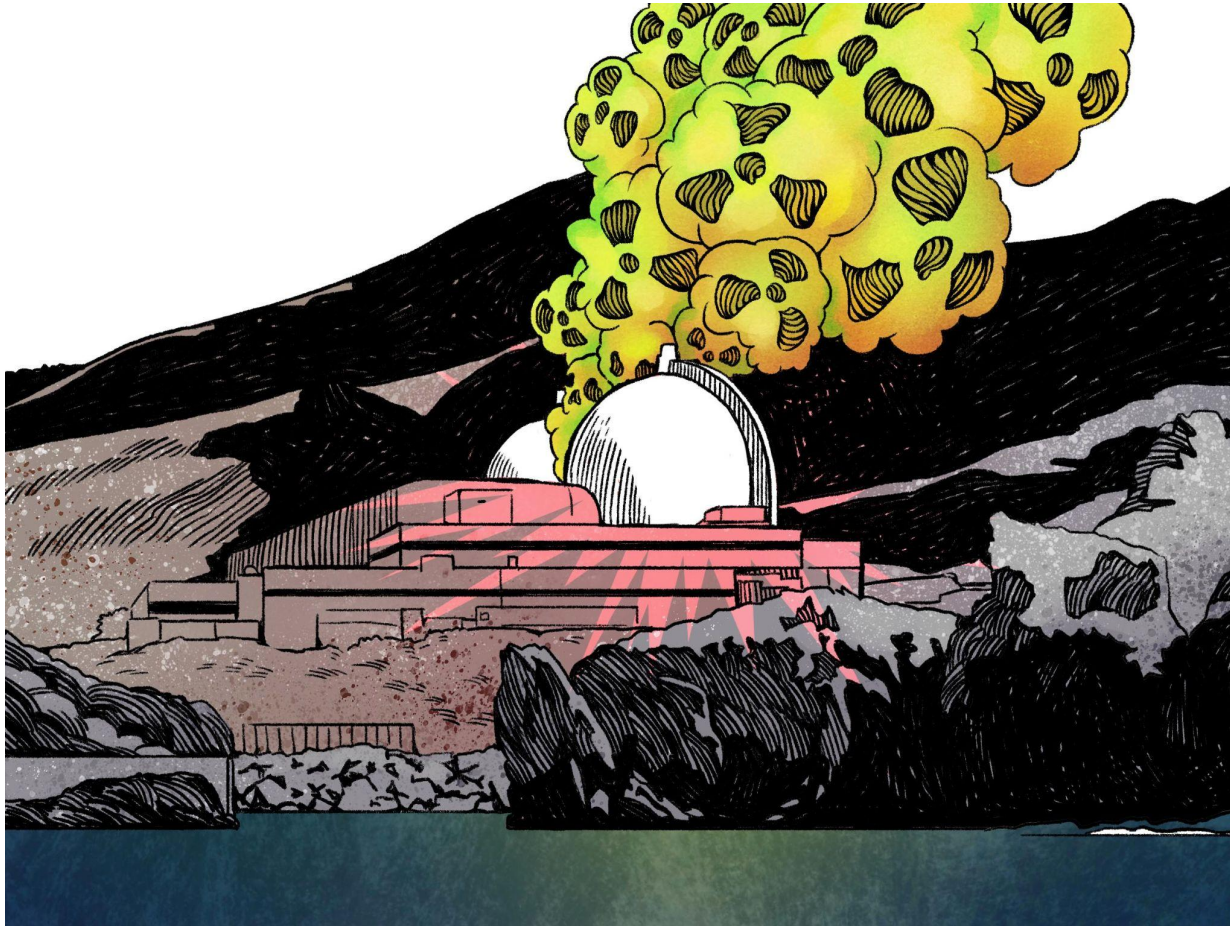
$$E = mc^2$$







# Eisenhower's "Atoms for Peace" Program



# Each Diablo Reactor Contains 1000 Times the Long-Lived Radioactivity of the Hiroshima Bomb

If there were a meltdown – caused by an earthquake, failure of an aging component, or terrorism – enough radioactivity could be released to contaminate a significant part of California for generations.

David Brower's Definition of a Nuclear Reactor:

**“A Complex Technological Device  
For Locating Earthquake Faults  
In California”**

**Diablo Canyon Nuclear Plant Was Designed and Permitted Based on the Assertion of No Active Earthquake Faults within 30 km**



Shortly Thereafter, Hosgri Fault Was Discovered,  
Coming Within 4 km of the Reactors



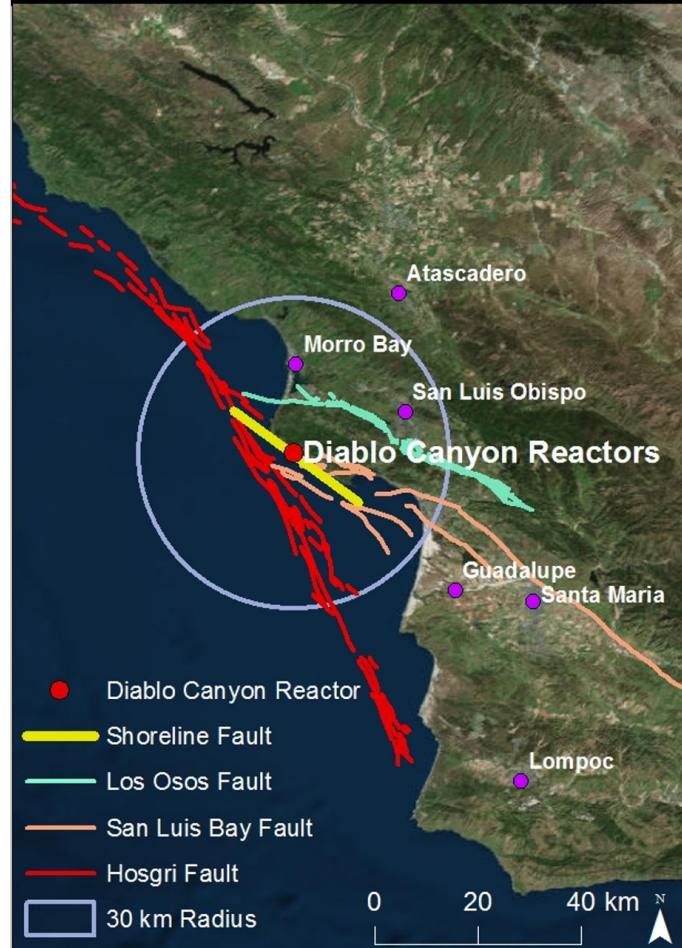
Subsequently, The San Luis Bay Fault Was Discovered To Be Active Near Diablo



# The Los Osos Fault Was Also Found To Be An Active Fault Near The Reactors



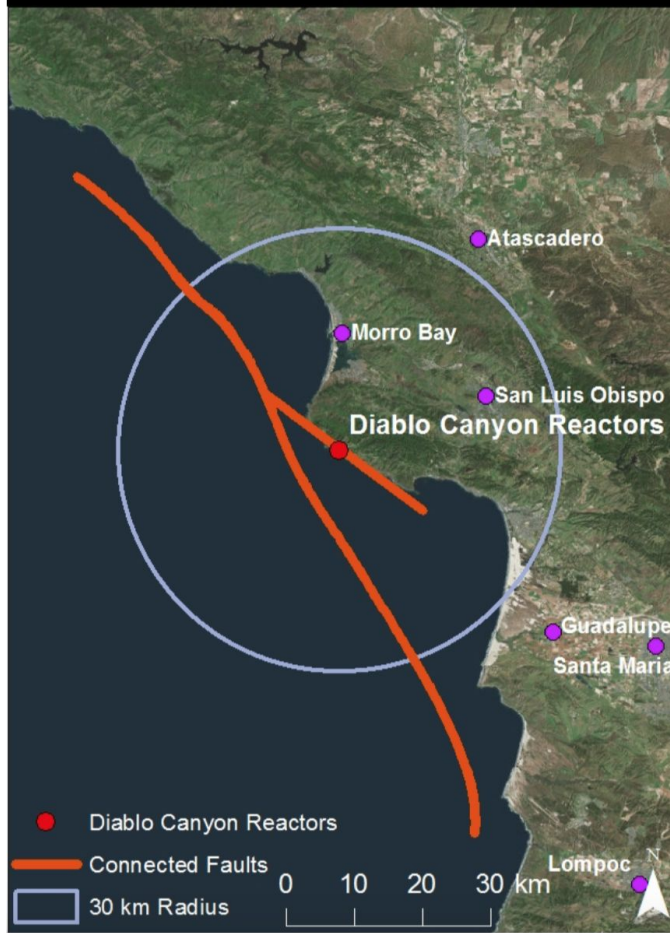
In 2007 The Shoreline Fault Was Discovered,  
Coming Within 600 Meters of The Reactors



# PG&E Asserted Hosgri and Shoreline Faults Were Not Connected



# But Recently PG&E Admitted That The Hosgri and Shoreline Faults Are Connected



# PG&E Claimed The Hosgri and San Simeon Faults Weren't Connected



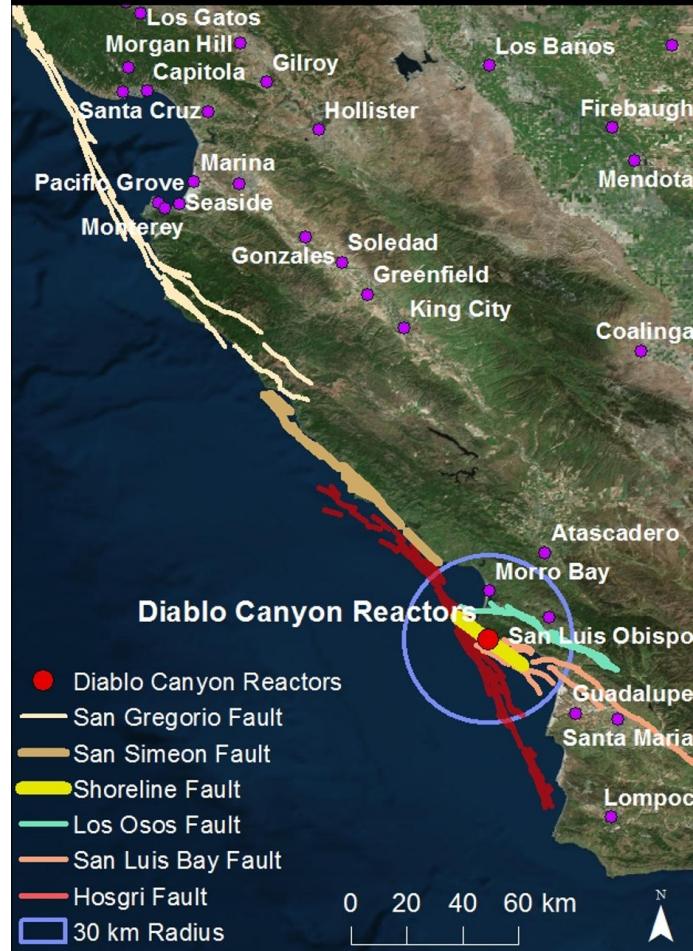
But PG&E Now Admits That the Hosgri, San Simeon, and San Gregorio Faults are Connected



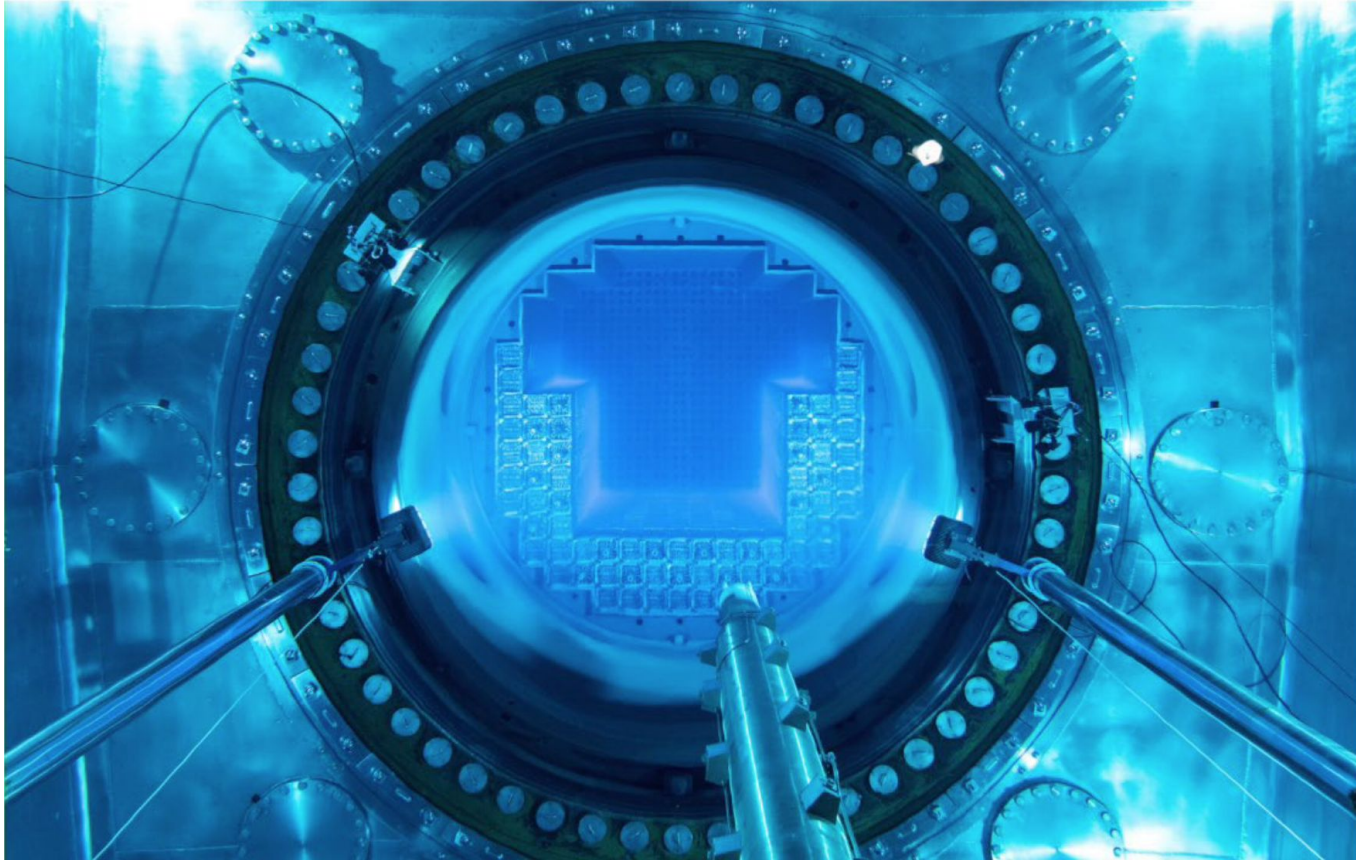
PG&E Now Admits That There Could Be A Joint Rupture Along The Hosgri-San Simeon-San Gregorio Fault Zone, Which Runs From South of the Reactors to North of San Francisco



Instead of No Active Faults Within 30 km,  
and No Interconnections, It Is Now Known That  
There are Four Nearby Faults and Several Interconnections



# Newly Revealed Embrittlement at Diablo Canyon

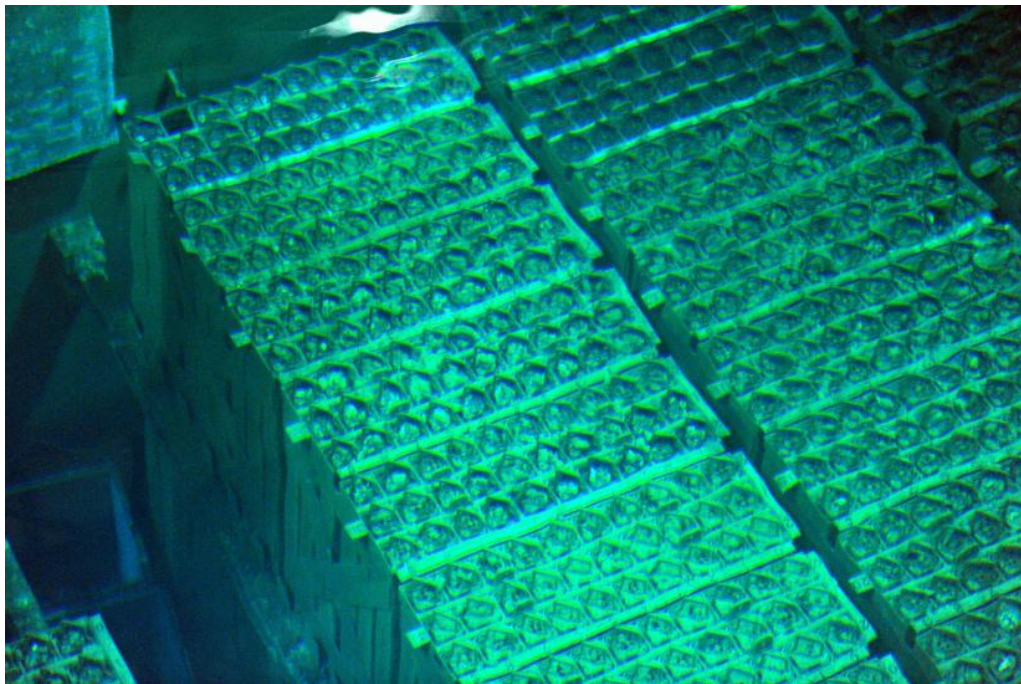
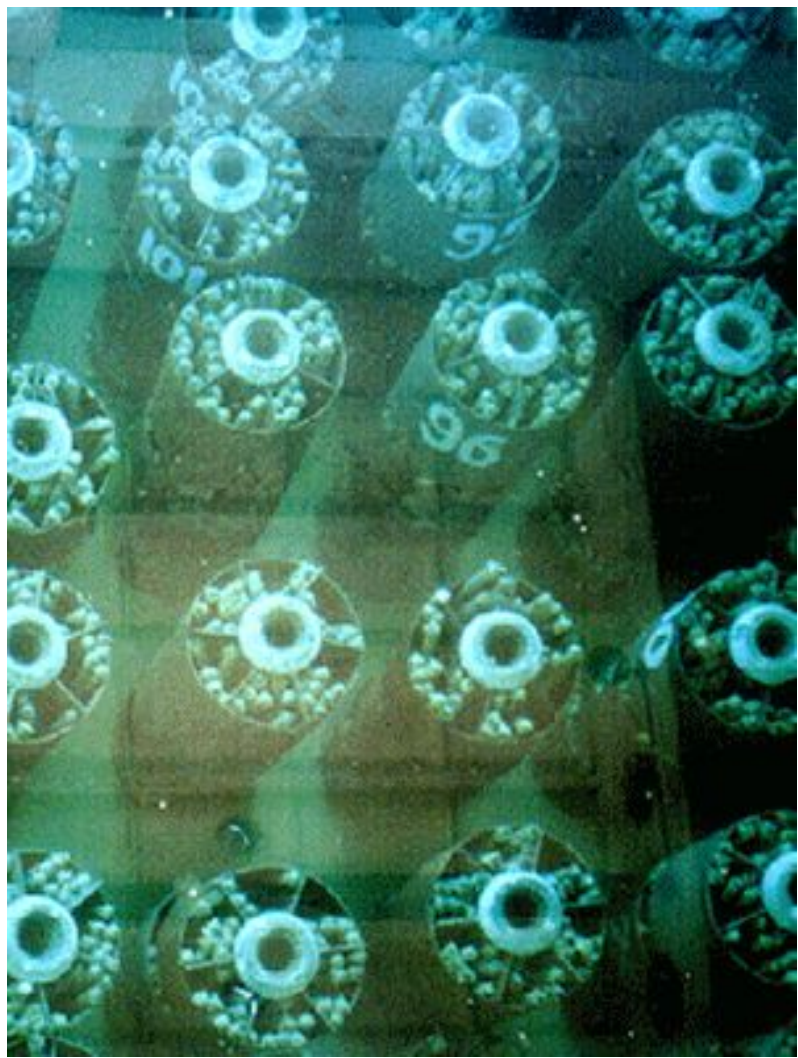




NUCLEAR POWER PLANTS

have produced energy *and...*

highly toxic nuclear waste



**Irradiated nuclear fuel rods**

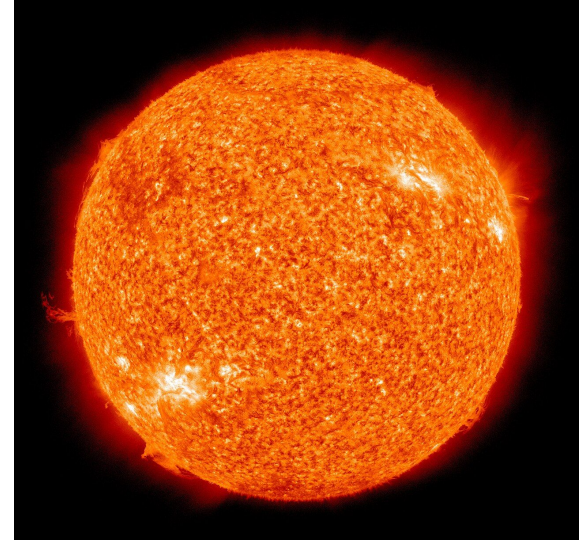
# The World Faces Two Existential Threats

- Nuclear War
- Climate Change

## There *Is* a Safe and Affordable Nuclear Power Source: **the Sun**

It has an appropriately large exclusion zone separating it from the public, 93 million miles, and can't be used to make atomic bombs. Each day, more than 10,000 times the world's energy needs shines on the earth from the sun. It is free, and falls on the deserving and undeserving equally.

The choice isn't between carbon and plutonium. It is between carbon and plutonium on the one hand and the sun on the other.



## Nuclear Plants Cost Far More, Take Much Longer to Bring Online, and Produce More Emissions Than Renewables

In sum, before accounting for meltdown damage and waste storage, **a new nuclear power plant costs 2.3 to 7.4 times that of an onshore wind farm (or utility PV farm), take 5 to 17 years longer between planning and operation, and produces 9 to 37 times the emissions per unit electricity generated.**

Stanford Prof. Mark Jacobson, 2019

# Nuclear Power Makes Both Existential Threats Worse

- Nuclear power steals critical resources necessary for genuine solutions to climate change – solar, wind, efficiency, and storage
- Nuclear power proliferates nuclear weapons

**Diablo Canyon, for Example, Produces Half a  
Ton of Plutonium per Year –**

**Enough for *250 Nuclear Bombs*  
More Powerful Than the One  
That Destroyed Hiroshima**