

## DOCKETED

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From: Harvey Sherback [<mailto:harveysherback@yahoo.com>]

Sent: Monday, March 16, 2015 1:03 PM

Subject: Re: Diablo Canyon's "Embrittlement" Problem

California Energy Commission

Commission Members

Robert B. Weisenmiller, Ph.D.

Chairman

March 16, 2015

Hello Chairman Weisenmiller, California Energy Commission Members & Staff,

California's aging Diablo Canyon nuclear power plants' two pressurized water reactors are susceptible to failure during an earthquake. This vulnerability is the result of decades of atomic bombardment by particles called neutrinos, a product of the nuclear reaction, and the plants' steel containment vessels. Over the decades, these particles have weakened the atomic structure of the steel itself, a process called "embrittlement." This means that both of Diablo's containment vessels have lost their flexibility over time increasing the likelihood of cracks in the system, which could lead to disaster.

As Diablo Canyon ages, its structure deteriorates. The embrittlement problem suggests that the nuclear plants' safety systems may be more likely to fail in an emergency. Diablo's generators and vessel caps were replaced between 2008 and 2010, but the loss of "vessel flexibility" leading to containment meltdown is a real issue at the aging plant.

Californians are constantly told to prepare for "The Big One", a mega-thrust earthquake on the Pacific Ring of Fire. We have also recently discovered that the likelihood of a quake exceeding Diablo Canyon's capacity is greater than its designers imagined. Why do we put ourselves at such unnecessary risk?

Harvey Sherback

Berkeley, California

March 9, 2015 - Headline: Schneider: Nuclear Power Is Risky And Unprofitable

"During the last months, thousands of cracks in reactor vessels were detected in Belgium's nuclear power plants."

<http://www.dw.de/schneider-nuclear-power-is-risky-and-unprofitable/a-18299318>

March 11, 2015 - Headline: Report: Chance Of Mega-Quake Hitting California Increases

"The chance of a magnitude-8 quake striking the state in the next three decades jumped to 7 percent from 4.7 percent, mainly because scientists took into account the possibility that several faults can shake at once, releasing seismic energy that results in greater destruction."

<http://news.yahoo.com/report-strong-quake-certain-hit-california-future-194242427.html>