

In search of answers at Diablo

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Scientists recently found a new earthquake fault, which, in and of itself, is not much of a revelation in a state veined with an abundance of fault lines.

This one, called the Shoreline Fault, has special significance for Central Coast residents — especially those in the lower quadrant of San Luis Obispo and northern Santa Barbara counties, because it's about a half-mile from the Diablo Canyon Nuclear Plant near Avila Beach.

This is the same nuclear power generating facility that has been the target of numerous protests and demonstrations over the years, and is now the subject of a relicensing effort — which has renewed the intensity of those protests.

The new focus on the Diablo Canyon facility was partially provoked by the devastating earthquake/tsunami in Japan, which caused serious damage to the coastal Fukushima nuclear plant, and the subsequent release of a considerable amount of radiation.

There are big differences between Diablo Canyon and Fukushima, both from a structural and geographic perspective, but the fact that both facilities are on seismically active turf and near the coast has heightened public awareness of the Diablo relicensing effort.

There are some pertinent facts to keep in mind, as the Diablo relicensing request snakes its way through the regulatory process.

First, nuclear power plants are among the most complex energy systems ever designed that are then put to practical, everyday use. That level of technical sophistication means the machinery is complicated, perhaps even a bit temperamental, and therefore more vulnerable to accidents.

Even with that level of complication and vulnerability to human and mechanical error, it's interesting that the world's nuclear power reactors have been online for a cumulative 14,500 years of service in 32 countries, with only three major accidents — Three-Mile Island in Pennsylvania, Chernobyl in the Ukraine, and Fukushima on the coast of Japan. The only fatalities directly related to a meltdown were in the Ukraine.

All things considered, nuclear power appears to be relatively safe, from a statistical standpoint.

Still, radiation poisoning is not pretty, and the potential of people dying because of leaks from a power plant is truly terrifying. We've all seen and read too much about the grim potential in an all-out nuke plant meltdown.

That is precisely why Central Coast residents need some hard, reassuring data from comprehensive seismic studies ordered by Diablo's owner, PG&E.

One way or another, a more complete picture of the region's fault structures should offer either a sense of increased security for area residents, or provide critics with more ammunition in their fight to get the plant shut down. Alarmist rhetoric simply won't do. Both sides in the debate need solid information.

This local debate comes at a critical point in the national discussions about energy policy, now and in the future. Nuclear power generating plants contribute significantly to the nation's power grid — roughly 20 percent of

California's electricity comes from nuclear facilities — but all three of the major incidents mentioned earlier proved that the cascading effects of a reactor malfunction are all but impossible to control.

If engineers in Japan — one of the world's most advanced high-tech nations — couldn't control a meltdown, one must assume experts in other nations would also struggle. Once the system begins to fail, there is little technicians and engineers can do to stop it from melting down the core.

Our hope is that PG&E's latest study will provide some specific answers to critics' questions.

Anything less will be unacceptable for anyone living along the Central Coast.