Document raises safety questions for Diablo Canyon nuclear power plant

In an extraordinary document kept secret by federal regulators for almost a year, the former senior federal safety officer at the Diablo Canyon nuclear power plant charges that its two reactors no longer have valid licenses and should be shut down until Pacific Gas & Electric Company can prove that they can withstand earthquakes along three nearby faults.

Michael Peck, who was the U.S. Nuclear Regulatory Commission’s senior resident inspector at Diablo Canyon, filed a Differing Professional Opinion in July 2013. A Differing Professional Opinion is the final and most dramatic step that a staffer can take in filing a dissent with agency policy.

The document details Peck’s efforts to convince the NRC to take regulatory action to address dramatic new information concerning three earthquake faults located near the reactors. In the document, Peck states that “NRC staff actions have been inconsistent with existing regulatory requirements and the facility design bases and Operating License.” He calls on the agency to keep the two 1960-era nuclear reactors near San Luis Obispo shut down until and unless the plants can be shown to withstand the earthquake forces of the nearby faults and have its licenses and safety bases amended accordingly.

Despite the seriousness of Peck’s charges, and his request that the document be made public, the NRC has neither released the report nor has the agency ruled on the Differing Professional Opinion within the 120-day limit described in the agency’s rules.

The Differing Professional Opinion reveals that new information has emerged about the severity of potential earthquakes near the plant, resulting in:

“...a condition outside the bounds of the existing Diablo Canyon design basis and safety analysis. Continued reactor operation outside the bounds of the NRC approved safety analyses challenges the presumption of nuclear safety... The reactors should remain shut down pending demonstration that SSC [structure, system or component] safety functions can be met at the higher seismic stress levels.”

On the front page of the Differing Professional Opinion, Peck specifically requested that his dissenting opinion be made available to the public. To date, it has not been released despite official requests by both Senator Barbara Boxer (D-Calif.) and Representative Lois Capps (D-Calif.), whose district includes Diablo Canyon.

The document details Peck’s efforts to raise serious safety and regulatory concerns about the plant despite repeated rebuffs by agency superiors. Peck first raised his concerns in September of 2010. In January 2012, he detailed his objections in a document known as a non-concurrence. Nine months later, Peck was transferred from Diablo Canyon to the NRC’s training facility in Chattanooga, Tenn.

Were the senior resident inspector’s analysis accepted, PG&E would be forced to shut down the Diablo Canyon nuclear reactors and could only reopen after lengthy and expensive public license amendment proceedings that could also result in a decision not to allow continued operation of the reactors.

Concern about earthquake activity at Diablo Canyon has made the plant one of the most controversial in the United States.

Construction began in 1968 at Diablo Canyon, an area of known seismic activity. As the plant neared completion in 1973, a major fault was discovered just 3.5 miles offshore. The Hosgri fault swelled concerns and opposition against starting the reactors, and led to a nearly decade-long battle. Despite the controversy, which became a leading environmental concern in California, the NRC permitted PG&E to start the two reactors in 1984 and 1985, respectively.

In 2008, PG&E informed the NRC of a new fault, called the Shoreline, less than 1,000 feet from the plant’s intake structure where water to cool the reactors is drawn from the Pacific Ocean. Concern about this fault, and its potential interaction with the nearby Los Osos and San Luis Bay faults, triggered Peck to submit a report calling for the plant’s closure.

It is clear now that Diablo Canyon could never be built today in such a dangerous, earthquake prone area. Rather than seeking to suppress Peck’s report, the NRC should heed his recommendations and instruct PG&E to shut down Diablo Canyon until and if it is proved that it is safe. PG&E’s profits are not as important as the health and safety of millions of Californians and protecting the central California coast.