



Recurring Problem Forced Diablo Canyon Nuke Unit Offline

20 OCT 2020

The untimely Oct. 15 shut down of the Diablo Canyon nuclear plant's Unit 2 is the second malfunction in a critical component of its electric generator, which was just rebuilt. In July, the same Pacific Gas & Electric unit was forced offline because then, as now, the cooling system that lowers the extreme heat inside the spinning generator was leaking hydrogen gas, which is the cooling fluid.

"While this isn't a radioactive disaster, it could lead to a catastrophic industrial disaster," warned David Weisman, Alliance for Nuclear Responsibility outreach coordinator. It is not only the loss of the 1,000 MW of power the plant produces, but also the potential loss of over \$100 million worth of machinery, he noted.

Diablo Canyon's only other unit also is down, undergoing planned maintenance since Oct. 3. Thus, the entire [2,200 MW plant was offline](#) when the grid operator called for conservation last Thursday. It is still not sending any power to the grid.



PG&E confirmed that the issue that took down Unit 2 last week is the same as the event in July: a problem at a key component, known as a stator. “We identified an area in the Unit 2 main generator system where hydrogen (used for cooling the electrical generator) was escaping,” Susanne Hosn, utility spokesperson, stated in an email to *Current*. She added that back in July repairs were done, “inspections were conducted, and the unit was returned to service.”

On Sept. 15, PG&E reported the July leak of hydrogen from the Unit 2’s cooling system to the Nuclear Regulatory Commission.

Ongoing component problems

Unit 2 has had ongoing problems with its stator since it was first built in the mid-1980s. PG&E rebuilt the component last year after the California Public Utilities Commission approved it spending over \$100 million in ratepayer funds as part of its 2017 general rate case. How much the utility actually spent is not yet known.

During an Oct. 23, 2019, Diablo Canyon Independent Safety Committee meeting, a PG&E representative said the “significant” investment to replace the stator was needed to keep the plant from being forced offline, although it will be permanently shut down in 2025. “It is the right thing to do, even with a limited life span,” he said.

The Alliance for Nuclear Responsibility unsuccessfully opposed the investment in the rebuild during the rate case proceeding at the CPUC on grounds it was an unreasonable hit to utility ratepayers.

“All it takes is a small chink in the nuclear armor to disable the machine from generating electricity it was paid billions of dollars to produce,” Weisman said. The nuke cost \$5.7 billion.

The utility said it does not know when Unit 2 will be back online.

The problem at Diablo is similar to the issue of flawed parts forcing the early closure of the San Onofre Nuclear Generating Station at Camp Pendleton in 2012. That heightens Weisman’s concerns about the NRC’s lax oversight. He wonders if the recurring key component failure is because of a possible laissez faire attitude at Diablo ignored by NRC officials.

PG&E will have to report last week’s stator malfunction over the next few weeks.

—Elizabeth McCarthy