Calif. Reactors Might be Retired

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LOS ANGELES (AP) — Costs tied to the long-running shutdown of California's San Onofre nuclear power plant have soared to $553 million, while the majority owner raised the possibility Tuesday of retiring the plant if it can't get one reactor running later this year.

The twin-domed plant between San Diego and Los Angeles has not produced electricity since January 2012, when a tiny radiation leak led to the discovery of unusual damage to hundreds of tubes that carry radioactive water.

Edison International — the parent company of operator Southern California Edison — reported Tuesday that $109 million has been spent through March 31 on repairs and inspections, while $444 million was needed for replacement power.

SCE has asked federal regulators for permission to restart the Unit 2 reactor and run it at reduced power for a five-month test period, in hopes of stopping vibration blamed for tube damage. Without that approval, Chairman Ted Craver told Wall Street analysts in a conference call that a decision on whether to retire one or both reactors might be made this year.

Carver's disclosure highlighted the growing pressure and uncertainty the company faces as one of California's most important sources of electricity sits idle. When running, the plant's twin reactors can power 1.4 million homes.

Edison is facing a tangle of regulatory obstacles that include a Nuclear Regulatory Commission review of the restart plan and a separate state investigation into who should pay for the trouble — customers or shareholders. Meanwhile, anti-nuclear activists and some lawmakers have said firing up the plant would lead to a disaster.

With questions about whether the plant can restart, mounting costs and who picks up the tab, "there is a practical limit to how much we can absorb of that risk," Craver said.

The problems at San Onofre center on steam generators that were installed during a $670 million overhaul in 2009 and 2010. After the plant was shut down, tests found some generator tubes were so badly eroded that they could fail and possibly release radiation, a stunning finding inside the nearly new equipment.

The generators, which resemble massive steel fire hydrants, control heat in the reactors and operate something like a car's radiator. At San Onofre, each one stands 65 feet high, weighs 1.3 million pounds and has 9,727 U-shaped tubes inside, each 0.75 inch in diameter. Hundreds of the tubes have been taken out of service because of damage or as a preventative step.

The trouble began Jan. 31, 2012, when the Unit 3 reactor was shut down as a precaution after a tube break. Traces of radiation escaped at the time, but officials said there was no danger to workers or neighbors. Unit 2 had been taken offline earlier that month for maintenance, and investigators later found unexpected wear on hundreds of tubes inside both units.

In June, a team of federal investigators announced that a botched computer analysis resulted in design flaws that are largely to blame for the unusual tube wear. Company engineers believe that running the plant at lower power will halt the damage.

Overall, investigators found wear from friction and vibration in 15,000 places, in varying degrees, in 3,401 tubes inside the four generators. And in about 280 spots — virtually all in the Unit 3 reactor — more than 50 percent of the tube wall was worn away.

Decaying generator tubes helped push San Onofre's Unit 1 reactor into retirement in 1992, even though it was designed to run until 2004.

San Onofre is owned by SCE, San Diego Gas & Electric and the city of Riverside.

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