

APNewsBreak: Report warns of nuke risk in Calif.

MICHAEL R. BLOOD - Associated Press - Associated Press

The utility that runs California's San Onofre nuclear plant misled federal regulators about equipment and design changes that are the likely cause of extensive wear on tubing that carries radioactive water, a report commissioned by an environmental group claimed Tuesday.

The report by nuclear consultants Fairewinds Associates warns that a more detailed study is needed on the alloy tubing in the plant's steam generators before the twin reactors at San Onofre are restarted, according to a copy obtained by The Associated Press. The study was produced for nuclear watchdog Friends of the Earth.

A series of untested equipment and design changes to the massive generators "created a large risk of tube failure at the San Onofre reactors," the report concluded, citing a review of government records.

Since the alterations, the plant has "experienced extraordinarily rapid degradation of their steam generator tubes," it said, adding that such rapid wear can raise the potential for an accident that could release radioactivity.

Southern California Edison, which operates the plant, said through a spokeswoman that the company would not comment until the report had been reviewed.

A team of federal investigators is trying to determine the cause of unusually heavy wear on hundreds of tubes at the seaside plant, located about 45 miles north of San Diego.

The problems have raised questions about the integrity of replacement generators the company installed at the two reactors in a multimillion-dollar makeover in 2009 and 2010.

Unit 3 was shut down as a precaution in January after a leak sprung in a tube carrying radioactive water, and extensive wear was found on tubing in its twin, Unit 2, which has been shut down for maintenance and refueling.

Traces of radiation escaped during the January leak, but officials said there was no danger to workers or neighbors.

Nearly 20,000 tubes are in each of the two reactors. Following the leak, tests found that seven tubes that carry radioactive water from the reactor were in danger of rupturing under high pressure in Unit 3. The company has said a total of 321 tubes will be plugged and taken out of service at the two reactors, well within the margin to allow them to keep operating.

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No date has been set to restart the reactors.

Among the modifications to the generators, the report said the alloy was changed, bracing was redesigned and more tubes were added. The company never disclosed that such extensive changes were made, instead describing it as an exchange of similar equipment, the report said.

That allowed SCE "to avoid the requisite NRC (Nuclear Regulatory Commission) oversight of a steam generator replacement process," the report said.

Without more detailed study, it "defies logic" to consider restarting either plant, the report added.

The steam generators were manufactured by Japan-based Mitsubishi Heavy Industries, according to company officials.

Inside a steam generator, hot pressurized water flowing through bundles of tubes heats a bath of non-radioactive water surrounding them. The resulting steam is used to turn turbines to make electricity.

The tubes are one of the vital barriers between the radioactive and non-radioactive sides of the plant. If a tube breaks, there is the potential that radioactivity from the system that pumps water through the reactor could escape into the atmosphere. Serious leaks also can drain cooling water from a reactor.

Fairewinds is a Vermont-based consultant that has worked with groups critical of nuclear power. The report was authored by engineer Arnie Gundersen, a former nuclear industry executive who was a licensed reactor operator.

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