

Attachment to July 18th, 2014
10 C.F.R. 2.206 Enforcement Petition
Florida Power & Light Company
Turkey Point Nuclear Plant

Attachment – Thirteen

Miami Herald News Article dated Aug. 5th, 2014 – Entitled: Feds OK hotter water to operate Turkey Point nuclear reactors (3-pages).

Miami Herald

Posted on Tue, Aug. 05, 2014

Feds OK hotter water to operate Turkey Point nuclear reactors

By Jenny Staletovich

jstaletovich@miamiherald.com



ALLISON DIAZ / FOR THE MIAMI HERALD

A view of the Turkey Point Nuclear Power Plant in Homestead with the cooling canals in the foreground.

Florida Power and Light may operate cooling canals around Turkey Point at higher temperatures, nuclear regulators say, despite a festering algae bloom that has clogged the waterway, made water hotter and threatened to shut down two reactors.

Cooling the nuclear reactors in southern Miami-Dade County with hotter water from the canal won't pose a risk to safety or harm the environment, the regulators said in response to an application from the utility last month to increase water temperatures to 104 degrees. Several times this summer, with power demand high, FPL reported that canal water approached or exceeded a 100-degree limit, which requires the reactors to be shut down.

FPL hastily cooled the canals by pumping water from the Floridan aquifer, but asked for the new temperature limit to deal with warming trends and below-average rainfall.

The Nuclear Regulatory Commission expects to finalize the new operating restrictions in the next few days, said spokesman Roger Hannah.

But environmentalists worry increasing temperature limits won't address a bigger problem: a 2013 plant expansion that demands more and more water to operate.

"Florida cannot generate energy with this much water consumption," said Laura Reynolds, executive director of Tropical Audubon. "It's in direct conflict with Everglades restoration and that really is the heart of the problem."

FPL has asked the state to revise water guidelines, allowing it draw millions of gallons from the Floridan aquifer to cool the canals. The fresher water is also needed to prevent spiraling salinity levels that are feeding the algae bloom and worsening the threat of saltwater intrusion into drinking water supplies.

A draft order would allow 14 million gallons of water a day to be pumped from the Floridan. The order would also revise an extensive monitoring program put in place prior to the power plant

expansion to track changes. State and county regulators as well as officials with the South Florida Water Management District are scheduled to go over the draft order on Friday, Division of Environmental Resources Management spokesman Luis Espinoza said.

FPL has consistently said increasing power at the plant has not raised water temperatures in the canals, which act as a radiator, cooling reactors by circulating water around the cores then letting the water cool as it moves across 168 miles of shallow waterways over two days before re-entering the reactors. By shutting down two older fossil-fuel burning plants at the site, FPL officials say they prevented any net gain in heat.

“It was all thought out and decided: We’re going to uprate the nuclear units but we’re not going to continue using the older technology,” said spokeswoman Bianca Cruz.

But some scientists are skeptical.

“That doesn’t seem credible at all,” said David Lochbaum, a nuclear engineer and director of the Nuclear Safety Project for the Union of Concerned Scientists. “Nuclear power plants are only 33 percent efficient. Only one third goes out on the wires. The other two-thirds must be released to the environment as waste heat. That’s why all these plants are built next to large bodies of water.”

FPL says below-average rainfall since 2013 is mostly to blame for the warmer water that has fueled the algae bloom. Algae was first spotted in 2011 and remained under control, Matt Raffenberg, FPL’s environmental services director, told federal, state and local officials last month. But when pumps stopped pushing water through the canal in March 2013 to allow workers to fire up the newly expanded units, the bloom got worse, he said. Less rain made water hotter and dropped canal levels even lower, causing the bloom to flare up.

FPL says rainfall over the canals remained at normal levels between 2011 and 2013. But in 2013, the yearly total dropped to just over 19 inches, about 30 inches off the average, said FPL Land Utilization Supervisor Bob Bertelson. During this year’s dry season, he said, just over five inches fell on the canals between January and June.

“So that’s pretty dry,” he said. “The dry season was drier than normal, which affects groundwater, which affects water elevation and so on.”

But water managers with the South Florida Water Management District say rainfall in southeast Miami-Dade has been average, totaling just under 40 inches in 2013 and just over 33 inches through August.

“That’s not hugely wet, but it’s been pretty wet. It’s definitely not dry,” said district meteorologist Geoff Shaughnessy. “We’ve had several droughts in the last 14 years and they didn’t have an issue.”

Before the expansion, which added 15 percent more capacity, biologists and environmentalists raised concerns, triggering the extensive monitoring plan that they now warn is in jeopardy.

“We want them to freshen the canals, but at what cost?” said Tropical Audubon’s Reynolds, who worried that changes are being made too quickly. “It’s clear that in the guise of an emergency, we’re heading down the wrong road.”

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