

## TurkeyPoint34SLREISCEm Resource

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**From:** Steven Schoedinger <schoedingerconsulting@aol.com>  
**Sent:** Thursday, June 21, 2018 9:18 PM  
**To:** TurkeyPoint34SLREIS Resource  
**Cc:** Burton, William  
**Subject:** [External\_Sender] Re: Docket NRC-2018-0101 - Scoping Comments on Florida Power & Light's Subsequent License Renewal Application for Turkey Point Nuclear Generating Station's Reactor Units 3 & 4  
**Attachments:** FL Keys Press- FKAAs Opp to TPP CCS Pollution.pdf; FPL TPP -2017 State Senator Article.pdf; Mia Herald TPP IRMA Article, Feb 2018.pdf; Mia Herald TPP Article Apr 2018.pdf

Dear Ms. Ma and Mr. Burton:

Attached for U.S. Nuclear Regulatory Commission staff review and consideration are 4 PDFs comprising factual articles published since 2016 by respected South Florida and national news agencies chronicling the operating and water pollution issues at the FPL TPP plant site and 46 year old open canal cooling water system for existing reactors #3 and #4.

These attached newspaper articles demonstrate (1) a 40+year pattern by FPL of negligent, unreliable and unsafe operation and maintenance of the 6000 acre open canal system for cooling the water from the nuclear reactors and non-compliance with local, state and national environmental regulations, and (2) contain information pertinent to Docket # NRC-2018-0101 Scoping Comments Phase of the Florida Power & Light's Subsequent License Renewal Application for Turkey Point Nuclear Generating Station's Reactor Units 3 & 4.

Sincerely,

Steven R Schoedinger, P.E.  
Member, Environmental Committee  
Ocean Reef Community Association  
58 Anchor Drive, Unit B  
Key Largo, FL 33037

**Federal Register Notice:** 83FR23726  
**Comment Number:** 94

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**Subject:** [External\_Sender] Re: Docket NRC-2018-0101 - Scoping Comments on Florida Power & Light's Subsequent License Renewal Application for Turkey Point Nuclear Generating Station's Reactor Units 3 & 4

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**From:** Steven Schoedinger

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**Recipients:**

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MESSAGE	1121	6/21/2018 9:18:46 PM
FL Keys Press- FCAA Opp to TPP CCS Pollution.pdf		2075160
FPL TPP -2017 State Senator Article.pdf		2288942
Mia Herald TPP IRMA Article, Feb 2018.pdf		802121
Mia Herald TPP Article Apr 2018.pdf		805469

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# Reactors

Continued from page 1A

the Biscayne Aquifer.

"If our wells, which are located approximately 10 miles from the FPL plant, are contaminated by the FPL created high salinity plume, the entire water supply to the Florida Keys is gone," FKAA Executive Director Kirk Zuelch wrote on behalf of the FKAA board. "Past and current operational issues caused by FPL have led to the environmental degradation of sole-source aquifer and Biscayne Bay."

The Florida Department Environmental Protection has found FPL in violation of its permits and of state rules. DEP and the FPL have worked out a settlement agreement that calls on FPL to reverse the westward flow of the plume and eradicate it.

The plan, if successful at all, could take 10 years to complete.

"FPL has shown little interest in dealing with these unpermitted consequences of its operation until enforcement action was taken," Zuelch wrote. "Even with consent orders in place, there is no clear evidence that FPL can resolve the issues they have caused by using the cooling canal system over many years, nor can they prove that the canal cooling system is still a viable option to handle thermal loads from the existing nuclear reactors."

"FKAA believes that the existing damage to the local environment must be

fully reversed before FPL is granted any additional increase to thermal load capacity at its Turkey Point power plant. It makes no sense to allow this expansion when FPL has such a poor track record operating the existing system."

FPL wants to place two new reactors at the plant and expand its energy supply capabilities. Part of the case could be decided by the Florida Supreme Court.

FPL sent a legal brief to the state's highest court asking the court to rule on whether it has to place some of its power lines underground. That part of the project is currently being challenged in court by Miami-Dade County, the cities of Miami, South Miami and Pinecrest.

The Nuclear Regulatory Commission could take months to rule on the new reactors.

[tohara@keysnews.com](mailto:tohara@keysnews.com)

## FKAA seeks denial of nuclear reactors

BY TIMOTHY O'HARA  
Free Press Staff

MONROE COUNTY — The Florida Keys Aqueduct Authority has asked federal nuclear regulators to not grant Florida Power & Light's request for two new reactors at Turkey Point, citing FPL's "poor track record."

The FKAA sent a letter to

the U.S. Nuclear Regulatory Commission late last month that was extremely critical of FPL's operations at the nuclear power plant at the top of the Florida Keys.

The plant's cooling canal system has created a large underground saltwater plume that could jeopardize the Keys' water supply,

See **REACTORS**, page 3A







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# State Senator: Get Cooling Canal Fix Right


By [NANCY KLINGENER \(/PEOPLE/NANCY-KLINGENER\)](#) • JUN 6, 2016


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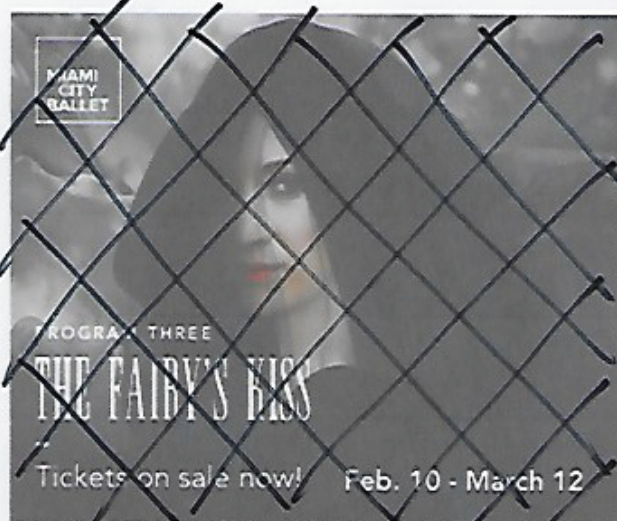
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[subject=State%20Senator%3A%20Get%20Cooling%20Canal%20Fix%20Right&body=http%3A%2F%2Fwww.tinyurl.com%2Fzlorfyp](mailto:subject=State%20Senator%3A%20Get%20Cooling%20Canal%20Fix%20Right&body=http%3A%2F%2Fwww.tinyurl.com%2Fzlorfyp)



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Florida Power & Light has until June 24 to provide a plan to the state Department of Environmental Protection to stop the saltwater plume that originates in the cooling canals at its Turkey Point nuclear power plant in South Miami-Dade.

On Monday, state Sen. Anitere Flores, R-Miami-Dade, told the South Florida Regional Planning Commission that it was important for people from throughout the region to weigh in and make sure the fix gets done right.

"Once a consent decree is agreed upon by both parties, the only way to undo it would be through litigation," she said. "So it's very important for DEP and FPL to get this right on the first try so we don't have to waste time solving the issue through costly and timely litigation."

The cooling canals are less than 10 miles from the wellfields that the Florida Keys Aqueduct Authority uses to supply water to the Florida Keys.

"This is not an issue for our drinking water today nor any time in the near future," Flores said. "However, we now know that these plumes are moving eastward and westward and that if we don't stop their movement, they will eventually affect our drinking water. So we need to stop this before it becomes a real problem to our health."

Flores said she hopes the utility will propose a series of extraction wells that would draw out the salty water, then inject it deep underground — and that the utility should consider using towers instead of canals to cool off the water.

TAGS: [TURKEY POINT \(/TERM/TURKEY-POINT\)](#) [FPL \(/TERM/FPL\)](#)



# Florida Nuke Plant Did Not Meet Fed Safety Guidelines as Irma Roared

By

*Update* | Operators of a nuclear power plant in the path of Hurricane Irma kept one reactor operating during the cyclone, although the plant had not finished meeting stricter federal safety requirements implemented after Japan's Fukushima accident.

The Turkey Point nuclear plant in Homestead, along the southeast Florida coast, experienced an unrelated failure in one reactor's cooling system during the storm. A part called the steam generator's feed regulating valve failed on Sunday night, prompting engineers to shut down the reactor.

The cooling system malfunction did not cause any radiation leakage, according to the Nuclear Regulatory Commission.

The failure of the valve at Turkey Point was unrelated to larger, federally mandated improvements that are still pending, including improving seals on exterior doors and improving floodwater drainage mechanisms near "key" cooling pumps, according to a flood- and hurricane-preparedness report the power plant sent to the Nuclear Regulatory Commission in June — a requirement of post-Fukushima regulations.

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Poor seals on exterior doors could lead to "substantial leakage" in a hurricane, the report also said.

At Turkey Point, the rooms that hold the cooling pumps "do not have a roof and

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are exposed to the rainfall," the report read. In the event of flooding, operators of the plant would drain the rooms with pumps that run on diesel fuel. A spokesman for the plant said the facility always has a week's worth of fuel on hand in case of a power outage — but he did not say how the pumps are refueled during a crisis.

Scott Burnell, a spokesman for the Nuclear Regulatory Commission, said commission staff had not signed off on Turkey Point's proposals to meet federal guidelines, but an initial review "concluded the plant's analyses are acceptable."

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But critics of the plant say further delay could be dangerous.

"The pump room is Turkey Point's Achilles heel," said David Lochbaum, director of the Nuclear Safety Project for the Union of Concerned Scientists.

"Without Component Cooling Water during an accident, workers must deploy backup to backup systems," he added. "At Fukushima, workers were unable to accomplish this task in time to prevent three reactor cores from overheating."

Power failures, which are common during hurricanes, are another concern to nuclear watchdogs. The risk of a serious accident rises significantly in a power outage, according to the Nuclear Regulatory Commission.

Turkey Point did keep one of its two reactors operating as the storm approached, only taking it offline after the valve malfunctioned.

"When there's a possibility to lose power, why would you take the risk of increasing that?" Maggie Gundersen, founder of Fairewinds Energy Education and former nuclear industry employee, told *Newsweek*.

"It's just absolute hubris and a huge risk to the population."

The most likely problem for a nuclear power plant in a hurricane, added Henry Sokolski, executive director of the Nonproliferation Policy Education Center, "is a loss of power to the plants."

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“Most people don’t understand this, but you need electricity going into a power plant — two sources of it generally to be on the safe side — to make sure that the electric motors that control things like safety control rods are running,” he added.

But the Nuclear Regulatory Commission spokesman Burnell said Turkey Point's response to Irma was "entirely acceptable."

"There was no reasonable concern that the storm would challenge plant safety from a flooding perspective," Burnell said.

*Story was updated to provide more context about the plant's preparedness.*



## NUCLEAR POWER

# FPL wants to extend reactors, but sea-rise studies give pause

■ Florida Power & Light has asked for approval to extend the life of its nuclear reactors by 20 years, based on its own 2013 sea-rise study. But newer research into the climate issue projects a much faster sea-rise rate.

BY JENNY STALETOVICH  
jstaletovich@miamiherald.com

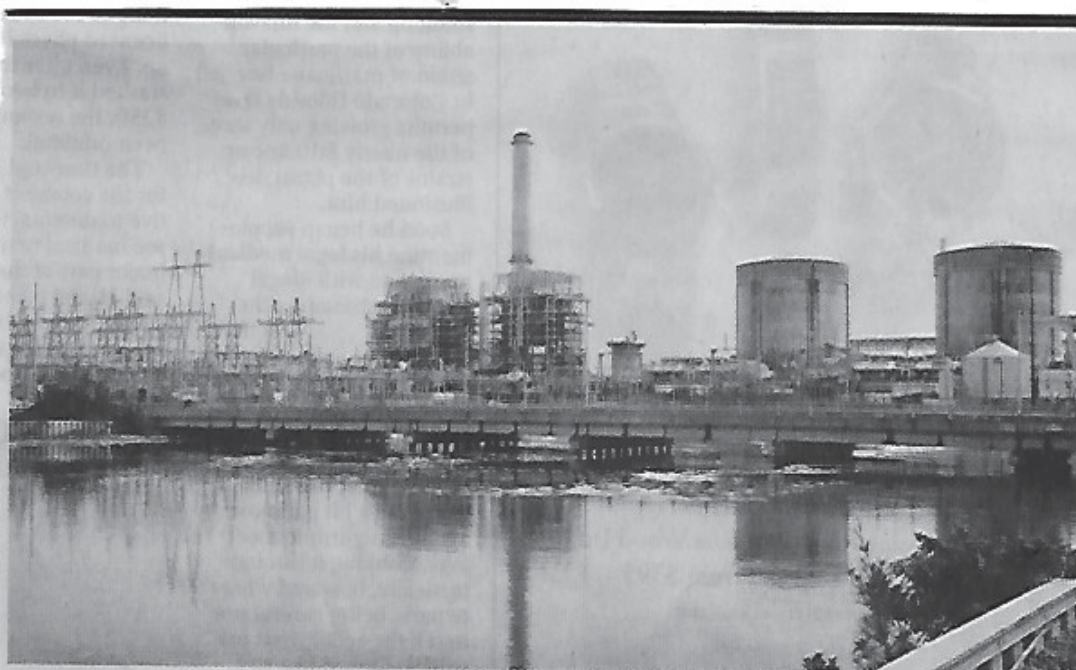
This spring, when Florida Power & Light asked nuclear regulators to keep its aging reactors perched on the shores of Biscayne Bay running another 20 years, the utility used its own

dated estimates on sea rise rather than the most recent, and far higher, projections by government agencies.

"Under a worst-case scenario, the plant could safely operate," said spokeswoman Bianca Cruz. "The plant is 20 feet above sea

SEE FPL, 4A

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EMILY MICHOT emichot@miamiherald.com

Florida Power & Light has asked nuclear regulators to extend the life of its Turkey Point reactors to 2052 but used sea rise projections that fall short of government estimates by 2060 of more than one to two feet.



# FPL

level."

But environmentalists and residents battling the utility over its expansion and ongoing operation in the vulnerable location jumped on the detail this week when the Nuclear Regulatory Commission held its first hearing on the request. They don't see how seaside troubled cooling canals that keep the reactors running, and in the midst of a \$50 million fix after tests showed they polluted the bay and threatened nearby drinking water supplies with an underground saltwater plume, can survive.

"I don't feel that they're putting our welfare above

their investors," said Redland resident Pat Milone, who relies on a private well for water and complained that she only learned about the hearing from an environmental group. "This is why Erin Brockovich is still in business."

FPL announced plans to extend the life of the reactors, constructed in the 1970s, after deciding last year to temporarily shelve two newly approved reactors. If approved, the extension would make the reactors among the dozen oldest in the U.S.

For the extension application, Cruz said the utility recycled a 2013 independent study it commissioned on sea rise for the new reactors. But since then, as climate science has evolved and conditions worsened, projections for

sea rise have dramatically increased. The U.S. Army Corps of Engineers and the National Oceanic and Atmospheric Administration have all revised projections by 2100 to between 5 feet and 6.75 feet. The FPL estimate called for three-quarters of a foot.

"We're confident that through that study we can operate safely," Cruz said. "However, if sea rise grows more rapidly than everyone expects, this is going to be a challenge for everybody, not just the canals or Turkey Point or FPL. We're all going to have to readjust and do the right thing, and so if that's something we have to do, we'll do it."

Cruz said that if nuclear regulators require more up-to-date sea-rise data, FPL will comply.

A dam around canals closest to the bay also provides about eight feet of protection against sea rise, said FPL land supervisor Bob Bertelson.

But environmental groups, including Tropical Audubon, Miami Waterkeeper and Friends of the Everglades, aren't convinced and point to unseen threats: creeping underground saltwater that is expected to worsen as sea rise and canal water leaking into Biscayne Bay. They worry that problems in the canals, which FPL continued to deny even after monitoring wells showed canal water spreading, will continue despite cleanup efforts.

"You can't relicense something if it's not operating as it was licensed," said Laura Reynolds, an

environmental consultant representing the groups who worries that a planned fix to add more water to the canals will actually worsen conditions.

Because the state and county oversee conditions in the canals, she said, it's possible the canals won't be factored into the NRC licensing decision.

"If they can't require conditions to fix the cooling canal system, they need to tell us the process to fix them," she said. "We all know after a decade of looking at this that those cooling canals are broken. They are not working."

The county, which cited the utility for violating clean water laws, also wants the canals and sea rise projections included in the review.

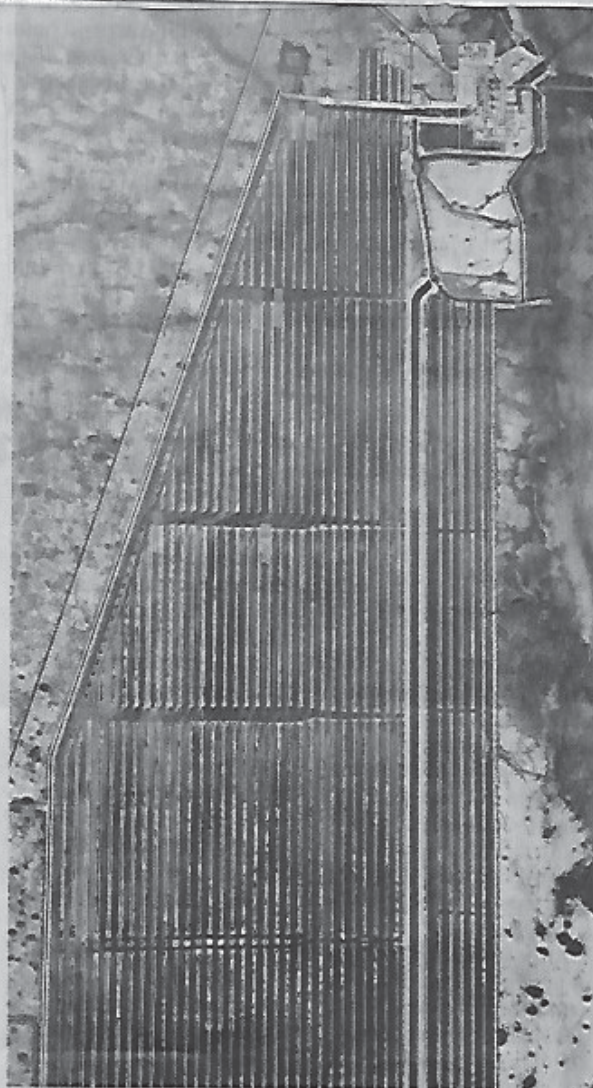
"We want to make sure the cooling canal system is able to function independently," said Environmental Resources Management division chief Lee Hefty. "So the surrounding land elevations near the cooling canals would be something we think should be looked at."

The county is overseeing a cleanup paid for by ratepayers that includes 10 extraction wells along the canals' western edge that will be used to pump out salty water and act as a barrier to the spreading plume. The utility also filled deep channels dredged in the bay near the canals where tests detected canal water. Filling them is intended to stop the canals from leaking into the bay, which the county is monitoring with regular sampling. In 2016, the state gave the utility 10 years to fix the canals.

But as sea rise projections grow grimmer, environmentalists worry the fixes won't come soon enough.

"Hurricanes are getting bigger, stronger, wetter. We know that's happening," said South Florida Wildlands Association director Matthew Schwartz. "These cooling canals are going to be part of Biscayne Bay very soon."

Follow Jenny Staletovich on Twitter @jenstaletovich



An undated aerial view of the Turkey Point cooling canals.