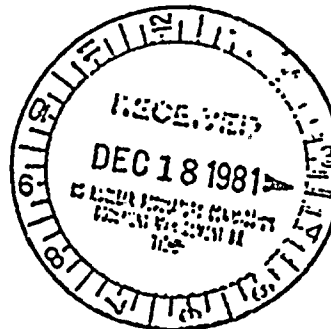


December 14, 1981
L-81-523

Office of Nuclear Reactor Regulation
Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Re: St. Lucie Unit 2
Docket No. 50-389
Draft Environmental Statement
FPL Comments



Attached for your review and comment are Florida Power & Light (FPL) comments regarding the St. Lucie Plant Unit No. 2 Draft Environmental Statement, NUREG-0842, dated October, 1981.

FPL would be pleased to discuss any of the comments at your convenience.

Very truly yours,

Robert E. Uhrig

Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/DME/mm

Attachments

cc: J.P. O'Reilly, Director, Region II (w/o attachments)
Victor Nerses (w/ attachments)
Harold F. Reis, Esquire (w/o attachments)

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COMMENTS ON ST. LUCIE 2 DES
(NUREG-0842, Oct. 1981)

- P.i
(1) Section 3 - In the discussion of ACRS hearings it should be noted that hearings were also held in Miami and Ft. Lauderdale, Florida.
- P.vi
(2) Table of contents - Titles of Subsections 5.10.1 and 5.10.2 are mislabeled; they should be "Regulatory Requirements" and "Operational Overview", respectively. (See p. 5-13 and p. 5-14)
- P.1-1
(3) Section 1.2 - Same comment as Number (1)
- P.1-1
(4) Section 1.2 - The percentage completion indicated in the second paragraph should be updated as of the time of issuance of the FES.
- P.1-2
(5) The last paragraph should read...the applicant has obtained State approval of the facility in the form of a site certification....
- P.1-3
(6) Table 1.1 under status for U.S. Army Corps of Engineers, it could read - Permit obtained, 1/81.
- P.1-3
(7) Table 1.1 under status for U.S. Coast Guard, it should read - Permit obtained, 5/81.
- P.1-4
(8) Table 1.1 under status for State of Florida Trustees of the Internal Improvement Fund, it should read - Permit Obtained, 1/81.
- P.1-4
(9) Table 1.1 under status for Federal Aviation Agency, it should read - Permit Obtained, 12/79.
- P.2-3
(10) Title of Section 2.4 should read - "Reliability Analysis".
- P.3-1
(11) Section 3.1 should read...that St. Lucie 2 at the specified site, and of the specified design ...
- P.3-1
(12) Section 3.2 - A new rule which would provide that need-for-power and alternative energy source issues should not be considered in operating license proceedings is currently scheduled for adoption late this year: Should such a rule be finalized before the completion of the FES, the FES should so reflect.
- P.4-1
(13) Section 4.2.1 should read...The Discharge pipeline for Unit 2 has a 4.9-m (16-ft) inside diameter versus the 3.7-m (12-ft) diameter pipeline described ...

- P. 4-1
(14) Section 4.2.2; Estimated average plant water usage supplied by the Fort Pierce Water System has been revised to 10.1 l/s (161 gpm), rather than 9.6 l/s (152 gpm).
- P. 4-6
(15) Section 4.2.4, 1st paragraph, typo - bis - (n-tri-butyltin) oxide (TBTiO).
- P. 4-6
(16) Section 4.2.4, last paragraph, should read - When either St. Lucie 1 or 2 circulating water system is out of service for extended periods the Y-port diffuser is to be closed and all flow will be diverted through the multi-port diffuser (except when this coincides with those infrequent occasions on which the multi-port diffuser itself must be closed for cleaning).
- P. 4-7
(17) Section 4.2.6, 4th paragraph: St. Lucie 1 is incorrectly cited; it should be St. Lucie 2. Total heat rejection rate of 6.4×10^9 Btu/hr represents the combined heat from St. Lucie Unit 2 ICWS and Circulating Water System.
- P. 4-8
(18) Section 4.2.6, 2nd paragraph, 4th line, typo - hypothetical
- P. 4-8
(19) Section 4.2.6, 2nd paragraph, 3rd sentence should read...and the petition to the State for Modification of Certification requested approval...
- P. 4-8
(20) Section 4.2.7, 1st paragraph, 3rd line should read... waste streams and has given additional detail...
- P. 4-8
(21) Section 4.2.7, 1st paragraph - The last sentence: "TRO must be...below 0.02 mg/l....." does not clearly reflect the intent of the NPDES permit. It's suggested to replace this sentence with: "For continuous chlorination of the auxiliary cooling water systems, TRO shall not exceed an instantaneous maximum concentration of 0.03 mg/l, prior to entry into the Atlantic Ocean". (See App. C Draft NPDES Permit, Part I, P. I-3)
- P. 4-8
(22) Section 4.2.7, 2nd paragraph: The statement: "Discharges of water treatment plant wastes....directed to the evaporation/percolation ponds" is incorrect. As described in Section 3.6.2 and Table 3.5-1 of the St. Lucie Unit 2 ER-OL, these wastes are normally directed to the neutralization basin for treatment before release to the intake canal. (See also App. C Draft NPDES Permit outfall 002, Part I, P. I-5)
- P. 4-9
(23) The paragraph which ends at the top of the page refers to "the need for later tying into municipal treatment facilities." There is, however, no basis for such a "need". Accordingly, the statement should be eliminated in the FES.

P. 4-9
(24)

Section 4.2.7, 2nd paragraph - Due to system change, ammonium hydroxide will be used for corrosion control. Cyclohexylamine will not be used. (See ER-OL Section 3.6.6.2 of Amendment 3 dated 7/81).

P. 4-10
(25)

The third paragraph on this page states that "Great concern also exists....because of evacuation due to hurricanes." This statement is unclear, contributes nothing to the environmental analysis and impact of St. Lucie Unit 2 and should be deleted.

P. 4-14
(26)

Section 4.3.3, 2nd paragraph: 800 meters are equivalent to 0.5 miles, not 0.5 m as stated.

P. 4-14
(27)

Section 4.3.3, 4th paragraph: Average current speed was found to be 16.4 cm/s (0.54 fps) near the bottom, not 1.64 cm/s. The statements, "The prevailing surface current...alongshore from the north...about 49% of the time. Flow from the south occurs about 23% of the time." should be corrected to read: "The prevailing surface current.....along shore towards the north...about 49% of the time. Flow towards the south occurs about 35% of the time."

P. 4-17
(28)

Section 4.3.8.1, 1st paragraph: should read - Indian River is a Coastal Lagoon lying to the west...

P. 4-17
(29)

Section 4.3.8.1, 1st paragraph, 3rd line should read ...arm of the Indian River

P. 4-17
(30)

Section 4.3.8.1, 1st paragraph, last line should read ...in the Indian River was dredged...

P. 4-17
(31)

Section 4.3.8.1, 2nd paragraph, 1st line should read ...biological characteristics of the Indian River...

P. 4-17
(32)

Section 4.3.8.1, 3rd paragraph, 4th line should read ...300 species identified. During the Gilmore study...

P. 4-17
(33)

Section 4.3.8.1, 3rd paragraph, 10th line should read ...The large fish populations encountered...

P. 4-17
(34)

Section 4.3.8.1, 4th paragraph, 3rd line should delete the word "crustaceans".

P. 4-18
(35)

Section 4.3.8.2.1 should read...substrate for Macrophyte attachment and the high energy of the nearshore environment. Benthic macrophytes are generally fragments or small specimens.....at the remaining stations further offshore where the shell and shell fragment bottom offered more surface area for algal attachment....

P. 4-18
(36)

Section, 4.3.8.2.2, 1st line should read... and Chlorophyll a offshore of the...

- P. 4-18
(37) Section 4.3.8.2.2, 8th line should read...and Chlorophyll a at the control...
- P. 4-18
(38) Section 4.3.8.2.4, 7th line should read...increases in molluscs and echinoderms.
- P. 4-20
(39) Section 4.3.9, 4th paragraph, 1st line should read... Preservation of Native Flora statute.
- P. 4-20
(40) Section 4.3.9, 4th paragraph, 2nd sentence states that "A number of species listed...grow on the St. Lucie Plant Site". Based on the 1980 version of the Act, only one species, Acrosticum danaeifolium, is known to occur on site.
- P. 4-20
(41) Section 4.3.9, 4th paragraph, 3rd sentence should read ...However, the statute is primarily concerned with...
- P. 5-1
(42) Section 5.3.1, 1st paragraph: The average and maximum estimated water uses by St. Lucie 2 are 32.74×10^3 l/s (1158 cfs) and 33.33×10^3 l/s (1177 cfs), respectively, not 32.74×10^6 and 33.33×10^6 l/s as stated.
- The average fresh water supplied by the Fort Pierce Municipal Water System will be 10.1 l/s (161 gpm), instead of 9.6. l/s (152 gpm).
- P. 5-4
(43) Section 5.6 should read...Because of the high flow rates in the immediate vicinity of the velocity caps and through the intake pipes...
- P. 5-5
(44) Section 5.6.1, 1st line, typo - ...stretch mesh) were fished two consecutive...
- P. 5-5
(45) Section 5.6.1, 5th line from top of page, typo -... were grunt, drum, snapper...
- P. 5-5
(46) Section 5.6.1, 6th line from top of page, typo -... in the intake canal is compared to the number taken ...
- P. 5-5
(47) Section 5.6.1, 7th line from top of page, typo -... in the intake canal is low....
- P. 5-5
(48) Section 5.6.1, 1st full paragraph on the page, line 8 - delete "gill or". Additionally, line 10 should read...a total of 542 loggerheads, almost... Line 13 should read - The mortality rates related to net capture and unknown factors have been 9.2%...
- P. 5-6
(49) Section 5.6.2, 2nd paragraph should read...in the vicinity and an insignificant portion of the number of shrimp commercially caught...
- P. 5-6
(50) Section 5.6.3, 1st paragraph should read...no measurable effect on the communities of the adjacent oceanic waters...
- P. 5-6
(51) Section 5.6.3, 2nd paragraph should read...stations and one station in both the intake and discharge canals

P. 5-7
(52)

Section 5.6.4, 1st paragraph should read - As a result of redesign of the cooling water discharge...(delete the word "additional").

P. 5-7
(53)

Section 5.6.4, 2nd paragraph should read...need not be that originating from St. Lucie 2...

P. 5-7
(54)

Section 5.6.4, 3rd paragraph should read...discharges showed no interaction of the plumes from the two discharges...only briefly during intertidal periods and in the absence of wind driven...

P. 5-7
(55)

Section 5.6.4, 4th paragraph should read...reduced to 23.7 m³/s (836 cfs), and with a plant temperature...

P. 5-7
(56)

Section 5.6.4, 4th paragraph: The 1.1°C (2°F) isotherm encloses an area of 390x10⁴m² (963 acres), not 390x10³m³ as stated.

P. 5-8
(57)

Section 5.6.4, 3rd paragraph should read...and surface temperature rise of discharge water from the new diffuser ...The State requirements for the variance will be spelled out in a modification to the site certification issued under the Florida Electrical Power Plant siting Act and will be....

P. 5-8
(58)

Table 5.1: Minor errors should be corrected as follows:

Plume Volume	Travel Time
Within Isotherm	Through Plume
	To Isotherm
2.8°C (5°F)	2.8°C (5°F)
10 ³ m ³ (A-ft)	Sec
0.62 (0.5)	8
0.74 (0.6)	9
<u>1.23 (1.0)</u>	14

P. 5-9
(59)

Section 5.6.4, 2nd paragraph should read...Planktonic species in the vicinity of the diffuser will be entrained...

P. 5-9
(60)

Section 5.6.4, 5th paragraph should read...of water temperature on hatchling loggerhead turtles.

P. 5-10
(61)

Section 5.6.5, 3rd paragraph: It's suggested to add a word "risers" to the first sentence to read "The organic tin compound.....new diffuser risers...." This would clarify the fact that only 58 risers, rather than the entire diffuser pipe, are lined with TBTO.

p. 5-10
(62)

Section 5.6.5, 3rd paragraph should read...
However, the applicant will use the diffuser
rather than the Y-port discharge during extended
single unit outages, except while the Unit 2
discharge line is being cleaned. One unit
operation would then require the use of the
Y-port discharge for that limited time period.
During these periods as well as extended periods
with no flow...

In addition, the last sentence ".....with no
flow through the Plant...." implies shutdown
of both units. It should be mentioned that
the operating philosophy of the St. Lucie
Plant would make two-unit outage at the same
time extremely unlikely.

p. 5-10
(63)

Section 5.6.6, 2nd line - delete the words
"of surface waters".

p. 5-11
(64)

Section 5.7, 2nd paragraph, 5th line - typo -
habitats. 6th line - typo - responses.

p. 5-12
(65)

Section 5.9, 3rd paragraph, last line should
read... can be forecast through 1988.

p. 5-13
(66)

Section 5.10.1, 4th paragraph: Table 5.3
being referred to appears in Section 5.10.3.
1.2, not Section 5.10.1.1.2. There is no
such section in this DES.

p. 5-18
(67)

Section 5.10.3.1.1, 1st paragraph: Suggested
to change "high doses" in the last sentence
to "relatively high doses".

p. 5-18
(68)

Section 5.10.3.1.1, 3rd paragraph: While a
risk assessment of the St. Lucie Unit 2 workers,
as compared to other nuclear power plant workers
is proper (the section title suggest exactly
that), a risk comparison of the nuclear power
plant workers to other industrial workers seems
to be out of place. Besides, one cannot help
questioning how reliable these risk numbers are.

p. 5-34
(69)

Section 5.10.4.1.3.1, 4th line from top of page:
It is not clear as to what reference the "section
5.7" is a part of.

p. 5-34
(70)

Section 5.10.4.1.3.1, 4th paragraph: St. Lucie
Unit 2 does not have an off-gas treatment system
for filtering releases from the main condenser.

p. 5-56
(71)

Section 5.10.4.1.4.5, paragraph 1, 7th line - typo -
... pathways as would the Sr-90...

- p. 5-57
(72) Section 5.10.4.1.4.6, 5th paragraph should read ...into the atmosphere, which may among other things...
- p. 5-64
(73) Section 5.11: The first paragraph refers to the development of a narrative to address the contents of Table S-3. That narrative is now scheduled for adoption later this year. Should it be adopted before the environmental impact statement is finalized, the FES should so reflect.
- p. C-36
(74) 10th line, typo - should read...cooling water some 5000 ft to the nuclear plant intake...
- p. C-37
(75) 2nd paragraph should read - The Florida Department of Natural Resources St. Petersburg Research Laboratory...
- p. C-38
(76) 3rd paragraph, 3rd sentence should read - The leatherback, ridley, hawksbill, and green turtles are classified as endangered...
- p. C-39
(77) 1st paragraph should read...period amounted to 571 loggerheads...has ranged from 0 to 172.