

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Michael M. Gibson, Chairman

Dr. Michael F. Kennedy

Dr. William W. Sager

In the Matter of

FLORIDA POWER & LIGHT COMPANY  
50-251-LA

Docket Nos. 50-250-LA and

(Turkey Point Nuclear Generating  
Units 3 and 4)

ASLBP No. 15-935-02-LA-BD01

December 13, 2015

CITIZENS ALLIED FOR SAFE ENERGY, INC.'S ANSWER TO  
FPL'S MOTION TO DISMISS CASE CONTENTION 1 OR, IN THE  
ALTERNATIVE, FOR SUMMARY DISPOSITION, AND  
FPL'S STATEMENT OF MATERIAL FACTS ON WHICH NO GENUINE  
DISPUTE EXISTS

INTRODUCTION

Pursuant to 10 C.F.R. §§ 2.323 and 2.1205, Citizens Allied for Safe Energy, Inc, (CASE) hereby submits its timely answer to FPL'S MOTION TO DISMISS CASE CONTENTION 1 OR, IN THE ALTERNATIVE, FOR SUMMARY DISPOSITION, (MOTION) AND FPL'S STATEMENT OF MATERIAL FACTS ON WHICH NO GENUINE DISPUTE EXISTS (STATEMENT) submitted on December 3, 2015.. On October 14, 2014 CASE filed a Petition to Intervene and Request for a Hearing (INT-038) challenging the NRC issuance of amendments to Renewed Facility Operating License Nos. DPR-31 and

DPR-41, issued to Florida Power & Light Company, for operation of the Turkey Point Nuclear Generating Units 3 and 4, located in Miami-Dade County issued on July 28, 2014 and posted in the Federal Register on August 14, 2014 (INT-009). On March 23, 2015 this Board issued MEMORANDUM AND ORDER (Granting CASE's Petition to Intervene) (Order) (INT-008). On October 9, 2015, as directed in the Board's Initial Scheduling Order of May 8, 2015,, CASE submitted its INITIAL STATEMENT OF POSITION, TESTIMONY, AFFIDAVITS AND EXHIBITS (CASE SOP). On December 1, 2015 CASE submitted its Joint Rebuttal to NRC Staff's and FPL's Initial Statements of Position, Exhibit List and Exhibits (CASE Rebuttal). On December 3, 2015 Florida Power and Light Company, Inc. (FPL) filed the title Motion and Statement.

## CONTENTION 1

The March 23, 2015 Order, at 24, states,:

### *(b) Admission of Contention One*

*The NRC's environmental assessment, in support of its finding of no significant impact related to the 2014 Turkey Point Units 3 and 4 license amendments, does not adequately address the impact of increased temperature and salinity in the CCS on saltwater intrusion arising from (1) migration out of the CCS; and (2) the withdrawal of fresh water from surrounding aquifers to mitigate conditions within the CCS. (emphasis added)*

*Of course, the question whether the 2014 EA is, in fact, sufficient to satisfy the NRC Staff's NEPA requirements is not the focus of our inquiry here but must await consideration at a full evidentiary hearing."*

## CASE ANSWER TO FPL's MOTION AND STATEMENT

### FPL ARGUMENTS:

#### 1) **STANDING**

*Motion, at 1,*

*Further proceedings are unnecessary because CASE has failed to submit any testimony or relevant documentary evidence in support of its standing to challenge the NRC's amendment of the Turkey Point operating license while the unrebutted testimony of FPL and the NRC Staff demonstrates that CASE does not, in fact, have standing.*

### CASE ANSWER:

CASE explained in detail in its Joint Rebuttal to NRC Staff's and FPL's Initial Statements of Position, Exhibit List and Exhibits, at 11-15, why no testimony was provided; voluntary testimony of Dr. Philip K. Stoddard was provided in CASE's Joint Rebuttal at 4-11. On December 10, 2015 CASE filed its SECOND MOTION REQUESTING SUBPOENAS FOR EXPERT WITNESSES FOR JANUARY, 2016.

Further, CASE's standing was not predicated upon the basis FPL proffers but, rather on judicial considerations at the Board Order of March 23, 2015 states at 9,

*...the Board grants CASE standing in this proceeding based on traditional judicial standing requirements .*

And, at 12,

*...the Board rules that CASE has made a sufficient showing that its members meet the requirements for standing by establishing the potential for injury caused by the NRC's issuance of license amendments to FPL that can be remedied by the Board in this proceeding*

Therefore, CASE submits that FPL's challenge to its standing is without merit.

## **2) WATER**

At 6 in its Motion, FPL states:

*At this stage, based on FPL's testimony and evidence and the NRC Staff's testimony and evidence, it is clear that CASE's assertions were **simply incorrect**. (emphasis added). **The water in the Biscayne Aquifer in the vicinity of Turkey Point is salty, like ocean water. FPL's withdrawal of the water will not affect saltwater intrusion** And the water in the Upper Floridan Aquifer in the vicinity of Turkey Point is brackish. FPL's withdrawal of this water will not affect saltwater. These points stand **unrebutted**—the CASE Rebuttal Statement did not address these issues (emphasis added).*

CASE ANSWER: Responding to FPL's argument, the drawing of *saltwater* from anywhere has no relation to the issues at hand. Other than NEPA, this

conversation is all about freshwater., especially the freshwater in the L-31E Canal from which, as the CASE SOP, at 56-58, notes, FPL was authorized, on August 28, 2014, to withdraw up to 100 MGD to mitigate conditions in the CCS. The 14 MGD and 30 MGD withdrawal authorizations of seawater are irrelevant to this discussion. But the 100 MGD, and later 163 MGD, authorizations by the South Florida Water Management District for FPL to withdraw freshwater from the L-31E could be catastrophic for those eco systems, wildlife, and residents which/who depend on freshwater for their functioning and survival. The now billions of gallons of freshwater drawn from the L-31E canal were also needed to prevent saltwater intrusion as CASE has explained in great detail in its pleadings. (CASE SOP at 13-16)

In none of the early documents in these proceedings does the NRC Staff or FPL correctly characterize the water in the L-31E canal as freshwater; they always refer to it as saltwater. In *NRC STAFF'S ANSWER TO CITIZENS ALLIED FOR SAFE ENERGY, INC.'s PETITION FOR LEAVE TO INTERVENE AND REQUEST FOR HEARING (November 10, 2014 ML14314A874) at 4, we read*

## II. State of Florida Permits

*Prior to submitting its license amendment request to the NRC, FPL sought approval from the State for additional measures to respond to increasing temperatures in the CCS. In separate requests to the State, FPL sought permission to chemically treat the CCS and inject additional water into the CCS from the **saltwater** Biscayne Aquifer and the brackish Floridan Aquifer. (Emphasis added)*

### **The L-31E canal IS a part of the Biscayne Aquifer**

As CASE stated at the January, 2015 hearing in Homestead, FL, Transcript at 61, lines 8-17:

MR. WHITE:

*8 I disagree with Counsel's  
9 characterization of the water as I said before. South  
10 Florida Water Management District, interestingly,  
11 classifies freshwater as under 250 units. But the  
12 state and the Miami Dade County have a threshold of  
13 500 units. The South Florida Water Management  
14 District's characterization of it at 250 is generally  
15 accepted as potable water. At 250 microsiemens, you  
16 can drink that water. At 500, you can't drink it  
17 directly, it needs a little treatment*

In fact, the salinity in the L-31E Canal, is around 400 ppt. And, actually, the State of Florida Standard for freshwater is salinity below 1225 ppt. The drinkability (potability) of the water is not at issue. While not necessarily potable, the L-31E water is legally and functionally freshwater needed to hold back saltwater and to nurture hatchling and juvenile sea life. Given that the salinity of seawater is around 34,000 ppt and the salinity of the freshwater in the L-31E is around 400 ppt, when CASE says “It is all about freshwater”, it is.

And this distinction between saltwater and freshwater should have been considered in the NRC Staff's 2014 EA; as pointed out in the CASE SOP at 55-58, they did not consider how much freshwater it would take to mitigate the conditions in the CCS, where that water would come from, and what the impact would be of removing that much freshwater from the immediate area outside of the CCS, on the 4,000 acre Biscayne Aquifer, and on Biscayne the Biscayne Bay Estuary, and beyond, and how it would affect homeostasis of the individual and connected systems

immediately and into the future. Thus, for FPL to conclude that CASE no longer has standing because it did not address issues which they raised which are unrelated to Contention 1 is not convincing.

The FPL Motion, at 6, states further,

*And the water in the Upper Floridan Aquifer in the vicinity of Turkey Point is brackish.*

Yes, the water is brackish but minimally so, with significant freshwater characteristics. The salinity of seawater is 34,000 ppt; the salinity of the Upper Floridan Aquifer is in the 1,000 to 3,000 ppt range so it is much closer to freshwater than seawater. And the full impact of drawing such water in great quantities from the Floridan Aquifer and the connection between the several areas and levels of the aquifer is not fully understood and is a matter of debate among local authorities. Did the 2014 EA mention this? These concerns should be addressed in an evidentiary hearing which considers NEPA requirements regarding consideration of local competition for resources as the CASE SOP discusses at 73-74. And there are implications of dire ecological impacts from a lack of freshwater miles from the CCS which can be presented at an evidentiary hearing.

At 14, 15 in the 2014 EA we read:

*The CCS is situated above two aquifers: the shallower saltwater Biscayne Aquifer and the deeper brackish Floridan Aquifer.*

*A confining layer separates the two aquifers from one another.*

*Turkey Point, Unit 5 uses the Floridan Aquifer for cooling water.*

*The South Florida Water Management District (SFWMD) recently granted FPL approval to withdraw a portion (approximately 5 million*

*gallons per day [MGD]) of the Unit 5 withdrawal allowance for use in the CCS. **FPL began pumping Floridan Aquifer water into the CCS in early July.** FPL has also received temporary approval to withdraw a portion (approximately 5 million gallons per day [MGD]) of the Unit 5 withdrawal allowance for use in the CCS. FPL began pumping Floridan Aquifer water into the CCS in early July. FPL has also received temporary approval to withdraw 30 MGD from the Biscayne Aquifer, though FPL has not yet used this allowance.*

Brackish means that there is some degree of salinity but, if it was significantly so, how much would it reduce salinity in the CCS? So, since the water is mostly fresh, it can reduce saltwater intrusion, as described. Thus, in addition to freshwater being drawn from the L-31E Canal, FPL is drawing nearly freshwater from the Floridan Aquifer. At no point does the 2014 EA discuss the implications of doing so. Apparently the NRC Staff defers to the State of Florida and local authorities on this; Is that what NEPA would require? As CASE pointed out in the CASE SOP, at 55,56, the NRC Staff never really figured out how much water it would take to make a dent in the 4 billion gallons of hypersaline water in the CCS to bring it down to the salinity of sea water; a lot. Or what the impact of doing so would be vis-a-vie saltwater intrusion

### **3)NEPA**

The FPL Motion, at 1, states:

*(CASE) has failed to show that it maintains a genuine dispute as to whether the NRC's Environmental Assessment ("EA") complies with the requirements of the National Environmental*



*Policy Act (“NEPA”). By contrast, the unrebutted testimony and evidence of FPL and the NRC Staff support the conclusion that the license amendment would have no significant environmental impact and that the NRC’s EA was adequate to comply with NEPA.*

**CASE ANSWER:**

**The CASE SOP, at 58-81, exhaustively and with particularity described how the 2014 EA did not adhere to NEPA guidelines in letter or spirit. This incongruence between FPL and CASE perspectives, alone, is sufficient purpose for which an objective evidentiary hearing should be held.**

***STATEMENT OF MATERIAL FACTS ON WHICH NO GENUINE DISPUTE EXISTS MATERIAL ISSUES***

Florida Power & Light Company (“FPL”) submits, in support of its motion for summary disposition of CASE Contention 1, this statement of material facts as to which FPL contends there is no genuine issue to be heard.

- A. The Ultimate Heat Sink Temperature License Amendment*
- 2. In addition to its safety evaluation, the **NRC Staff prepared a Biological Assessment and an Environmental Assessment.** (emphasis added). FPL Testimony at A106, A119; NRC Staff Testimony at A33.*

**CASE ANSWER: The Biological Assessment was not prepared specifically for this EA, it was recycled.**

*4. The NRC's Environmental Assessment noted that temperature increases associated with the amendment would increase water evaporation rates and result in higher salinity levels in the cooling canal system, but that this effect would be temporary and short in duration because salinity would again decrease upon natural freshwater recharge of the system, and concluded that the ultimate heat sink license amendment would not have a significant impact on groundwater resources and aquatic resources. NRC Testimony at A40; FPL Testimony at A108; Exhibit NRC-009.*

**CASE ANSWER: "...temporary and short duration etc." CASE challenges these assumptions and conclusions and notes the lack of science behind them. Expert witnesses should address this.**

*5. The NRC issued the license amendment on August 8, 2014. NRC Staff Testimony at A33; see also FPL Testimony at A94.*

**CASE ANSWER: The analysis and conclusions were communicated to FPL on July 28, 2014 (ML14209A031} INT-009.**

*9. The ultimate heat sink license amendment will not cause FPL to withdraw additional water from local sources. FPL Testimony at A96; NRC Testimony at A82-83.*

**CASE ANSWER: This is at variance with the hundreds of millions of**

**gallons, possibly over a billion gallons, of freshwater which FPL has withdrawn from the L-31E since July, 2014 to mitigate conditions in the CCS.**

*15. FPL's withdrawal of water from the Floridan Aquifer will not result in an increase in saltwater intrusion. FPL Testimony at A81-82; NRC Staff Testimony at A70.*

**CASE ANSWER: As noted above, at 6,7, this water is nearly fresh and the ultimate impact of withdrawing large amounts of water from the Floridan Aquifer, on which many municipalities and a huge ecosystem depend, is unknown. Local authorities should provide testimony on this at an evidentiary hearing.**

*18. Saltwater has been documented in the Biscayne Aquifer well inland of Turkey Point since before the construction of the CCs. FPL Testimony at A34; see also NRC Staff Testimony at A17.*

**CASE ANSWER: The nature of saltwater intrusion is very complex. As described in Figures 2,3 and 4 in INT-041, the front of the saltwater wedge descends at about a 40 degree angle so that the stated distance of westward intrusion from the coast demarcates the leading edge of the front. We know that before 1955, salt water intrusion was very close to Biscayne Bay at lower depths; the surface was freshwater for miles into the Bay. The specific role the creation and presence of the newly created CCS played in exacerbating**

**saltwater intrusion six miles inland where it is now is subject of conjecture. We are only concerned with what the NRC staff could have and should have considered in the preparation of the 2014 EA; none of these concerns seem to have been addressed. We must ask local experts at the administrative hearing in January, 2016 if withdrawing billions gallons of freshwater from the L-31E canal, as will occur in the proposed four years of the CCS mitigation plan, will have an impact on saltwater intrusion and ecology in the area. And if the loss of that freshwater will have even broader impact. And, as the CASE SOP notes, at 10, migration of freshwater from the CCS occurs in many ways due to the operation of the CCS.**

*19. FPL's withdrawal of water from the Biscayne Aquifer will not result in an increase in saltwater intrusion. FPL Testimony at A79; NRC Staff Testimony at A68.*

**CASE ANSWER:**

**This statement is the same as #22 below which says the same thing about withdrawal of water from the L-31E canal. Again, FPL, and the NRC Staff make no distinction between saltwater/seawater and freshwater; they see it all as just water, which is, as CASE has said at #2 above, is the heart of the problem. And this does highlight an inadequacy in the 2014 EA: incorrectly characterizing the nature and the interaction of the elements and systems involved.**

**And the nature of saltwater intrusion is more complex since, described in Figures 2,3 and 4 in INT-041, the front of the saltwater wedge descends at about a 40 degree angle so that the stated**

distance of westward intrusion from the coast demarcates the leading edge of the front. We know that before 1955, salt water intrusion was very close to Biscayne Bay at lower depths; the surface was freshwater for miles into the Bay. The specific role the creation and presence the newly created CCS played in exacerbating saltwater intrusion six miles inland where it is known is subject to conjecture. We are only concerned with the NRC staff could have and should have considered in e preparation of the 2014 EA; none of these concerns seem to have been addressed. We must ask local experts at an administrative hearing in Miami-Dade County if withdrawing billions gallons of freshwater from the L-31E canal, as will occur in the proposed four years of the CCS mitigation plan, will have an impact on saltwater intrusion and ecology in the area. And if the loss of that freshwater will have even broader impact. And, as the CASE SOP notes, at 10, migration of freshwater from the CCS occurs in many ways due to the operation of the CCS.

*21. The water FPL has utilized from the L-31 E canal would be discharged to the ocean if it were not diverted to the CCS. FPL Testimony at A83, A87-A88, A91; NRC Staff Testimony at A72.*

**CASE ANSWER:** The freshwater from the L-31E Canal would not be discharged into the Atlantic Ocean but o be into Biscayne National Park and into the Biscayne Bay Estuary where it is critical to the ecology and to the early life cycle of much sea life there. The NRC

**Staff should not only know this but should be sensitive to it, as should all who administer and regulate the use of the Turkey Point Wetland.**

*.22. FPL's withdrawal of water from the L-31 E canal will not result in an increase in saltwater intrusion. FPL Testimony at A92; NRC Staff Testimony at A72.*

**CASE ANSWER: Same as 18 and 19 Answers**

## CONCLUSION

As CASE understands the recast Contention 1, the crux of this inquiry is the adequacy of the NRC Staff analysis in preparing the the 2014 EA and in reaching its FONSI conclusion. This seems to be in two areas: The NRC Staff work in considering the impact of what was being approved in the areas defined by the Board and in their incorporation of NEPA standards into the process. Although critical for the Board in arriving at their eventual adjudicated course of action, the specifics of saltwater, salinity, temperature, cyanobacteria, saltwater intrusion, etc. are, as CASE understands, ancillary to the discussion. What is central to this discourse is the question of the breadth, depth, thoroughness rigorous and objective evaluation of the critical factors that were and were not addressed. For FPL to focus on the physical details of the conversation, even it they may be correct on some points, does not speak to the adequacy of the 2014 EA and FONSI which is in question. The fact that FPL, in this Motion and Statement, presented so many points at variance with CASE, as CASE demonstrated in all of its pleadings in this matter, and with the local authorities regarding the facts on and in the ground, only underscores the

need for an evidentiary hearing. All that CASE is seeking is an objective review of what is actually occurring to, in and outside of the CCS as it impacts its members' admitted interests. If CASE has misinterpreted or misunderstood the operation of the reactors and/or the CCS and there are no reasons for its members to be concerned, and an in-depth review by the Board determines that the FONSI was correct, so be it. On the other hand, if that is not the Board conclusion, CASE would ask that the Board use its considerable authority to require strong, effective and, if merited, ground breaking, measures to correct, reverse and stop the impact of the operation of Turkey Points Units 3 and 4 and of the CCS on the Turkey Point Wetlands to the detriment of the land and CASE members, no matter how far reaching they might have to be.

The subject FPL Motion and Statement have presented no compelling arguments here which would lead one to conclude that the Motion to Dismiss or Summary Disposition be granted.

*Respectfully submitted,*

*Executed in Accord with 10 CFR § 2.304(d).*

*/S/ (Electronically) Barry J. White*

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*Dated at Miami, Florida  
this 13th day of December, 2015*

*UNITED STATES OF AMERICA*  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
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FLORIDA POWER & LIGHT COMPANY )	)	Docket Nos. 50-250 and 50-251-LA
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(Turkey Point Nuclear Generating )	)	ASLBP No. 15-935-02-LA-BD01
Units 3 & 4 )	)	

CERTIFICATE OF SERVICE

I, Barry J. White, hereby certify that copies of the foregoing CITIZENS ALLIED FOR SAFE ENERGY, INC.'S ANSWER TO FPL'S MOTION TO DISMISS CASE CONTENTION 1 OR, IN THE ALTERNATIVE, FOR SUMMARY DISPOSITION, AND FPL'S STATEMENT OF MATERIAL FACTS ON WHICH NO GENUINE DISPUTE EXIST have been submitted to the Electronic Information Exchange.

Respectfully submitted,

Executed in Accord with 10 CFR § 2.304(d).

/S/ (Electronically) Barry J. White

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Dated at Miami, Florida  
this 13 day of December, 2015