

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

Docket Nos. 50-250-LA
and 50-251-LA

Turkey Point Nuclear Generating,
Units 3 and 4)

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

June 27, 2016

CITIZENS ALLIED FOR SAFE ENERGY
PETITION FOR REVIEW

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INTRODUCTION

On October 14, 2014 Citizens Allied for Safe Energy, Inc. (CASE), a Florida Not-For-Profit Corporation, filed *pro se* a Petition To Intervene and Request for a Hearing (PETITION) (INT-038) in the subject matter. On March 23, 2014 this Board issued Memorandum and Order (ORDER) granting CASE standing and admitting one contention. On May 31, 2016 this Board issued its Initial Decision (Decision). CASE hereby submits a Petition For Review of that Decision as provided in C.F.R. § 2.341 in a timely manner .

DISCUSSION

(i) A concise summary of the decision or action of which review is sought;

In the Board Order of March 23, 2015, at 23, 24, we read:

b) Admission of Contention 1

CASE identifies the concern that precipitated its filing of a petition by stating that “[w]e saw the solutions to mitigate the problem which we considered evasive and problematic. And their failure to consider other options as causes.”¹¹⁹ The Board views this statement as a basic summation of CASE’s contention, but has narrowed the contention to eliminate those areas CASE alleges the omission of information that is, in fact, discussed in the NRC Staff’s EA.120 As such, the Board admits Contention 1, narrowed

and reformulated to read as follows:

(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.

Of course, the question whether the 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.¹²¹

At 56 in the Decision we read:

V CONCLUSION

The Board concludes that, although the 2014 EA is deficient with respect to its discussion of saltwater migration, saltwater intrusion, and aquifer withdrawals, those deficiencies have been adequately remedied by the record evidence developed during this proceeding. This Initial Decision supplements the 2014 EA thereby satisfies the NEPA obligation to take the requisite "hard look" and also justifies the finding of no significant environmental impact.

(ii) A statement (including record citation) where the matters of fact or law raised in the petition for review were previously raised before the presiding officer and, if they were not, why they could not have been raised;

In the first paragraph on page 38 of the Decision the Board sets out what appears to be the legal bases and precedents for the Board's Conclusion in this matter regarding the NRC Staff's having fulfilled its NEPA obligations. The precedents cited are all previous Board or regulatory rulings which is as much to say, "We are right because we say we are right." No external citations of jurisprudence for the Conclusion were made or provided to show that such a decision has precedence outside of the ASLB or another governmental entity.

Can one correct the gross deficiencies of the NRC Staff's 2014 EA and FONSI, as scathing, critical, dismissive, grave, dystopian and pervasive as the Board describes in pages 17 to 37 of the Decision, by deeming it "cured" by a rhetorical review of the matter in these proceedings? Are we doing group or Rogerian therapy? How can the Board state, at 17, "We reject the NRC Staff's argument that the 2014 EA adequately addressed impacts on groundwater" and then proceed to say that the discussion of these matter "cured" everything? Is this some form of Orwellian Doublespeak? Confabulation in Oz? The words failed, failure, flawed and similar appear dozens of times in pages 17 to 37 as part of an endless negative evaluation by the Board of the NRC Staff's work, or lack thereof. How can the Decision's Conclusion possibly follow from such a review?

Is the "cure", as described in the Initial Decision, equal to the legal definition of "remedy" and does it provide sufficient redress of grievances for CASE's members as set out in CASE's original Petition and elsewhere in its findings in this matter? The Decision does provide any judicial citations to support the proposition that by just going through the process of prosecuting a petition or pleading can resolve or assuage the petitioner's confirmed and legitimate complaints in the past, present and/or in the future.

“The rights of individuals and the justice due to them, are as dear and precious as those of States. Indeed, the latter are founded upon the former; and the great end and object of them must be to secure and support the rights of individuals, or else vain is Government.”

Justice Cushing in Chisholm v. Georgia, 2 U.S. (2 Dall.) 419, 468 (1793).

(iii) A concise statement why in the petitioner's view the decision or action is erroneous; and

1) The Decision does not address the basis for CASE'S Petition or the procedural issues the Board recognized

The Conclusion reached in the Initial Decision does not speak to the letter or the intent of Contention One or to the bases on which standing was granted. This Board's Order of March 23, 2014 states, at 12,

*The issue before this Board is ... whether the NRC Staff is obligated to evaluate more fully the environmental impacts associated with issuance of the challenged license amendments, including the impact of aquifer withdrawals that are the immediate or reasonably foreseeable result of the NRC's granting of the subject amendments. As such, 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.
(emphasis added)*

At issue was not the ecology of the area *per se*, but rather the process of the NRC staff in conducting its 2014 Environmental Assessment and Finding Of No Significant Impact on August 14, 2014. If it is agreed that the subject of this judicial inquiry was a process as opposed to a review of the specific ecological concerns then CASE holds that only an insightful and

permanent administrative change in the process is an appropriate “cure” or remedy. A rhetorical review of the actions and intent of the NRC staff in July, 2014 regarding the 2014 EA does not serve the cause of meaningful redress for either CASE, its membership or, by extension, the 1.5 million local residents and commercial or transient users of water in the area or the health of the Biscayne Aquifer and surrounding waters. The petitioners’ need and right for redress have not been met by the Conclusion in the Decision. The potential for injury still exists, witness, for example, the Notice Of Violation issued to the applicant on October 2, 2015 by Miami-Dade County (INT-005).

2) The Decision does not follow from and is contradictory to the Discussion of the Adequacy of the Staff’s Environmental Review, pages 17-37.

Considering the unequivocal nature the Board’s acceptance of CASE’s successful prosecution of Contention One, as restated by the Board, the Conclusion seems to be unsupported by the substantial evidence the Decision presents in pages 17 to 37. The words fail or failure or similar are used dozens of times. The Board’s discussion is scathing in its criticism of the NRC Staff and the deficiencies of the 2014 EA and FONSI. The Decision speaks of the short comings of the 2014 EA but Contention One charges the NRC and the NRC Staff with being inadequate and deficient; people not a document. Pages 17 to 27 constitute a Management Performance Review. If such an evaluation was made in a business setting and was of the nature we have described it would lead to either 1) retraining, reassigning or dismissal of staff, or 2) re-evaluation of the skill level necessary for the positions, or 3) a review of the supervision and management review of staff decisions and processes. None of this will occur given that the Board’s Conclusions preclude employing such established proactive

good business practices. Simply pointing out to individuals, staff and their supervisors their deficiencies without a program for change and correction or a plan to revisit and redo the 2014 EA and FONSI does not seem sufficient to merit the extensive judicial process in which we are and have been engaged for over a year and a half and the considerable human and financial resources expended by all parties in this matter. The Conclusion might be better characterized as an apology. Saying that there has been a “cure” does not assure that the future work of the NRC Staff will be more responsive, thorough or effective. And it leaves unaddressed the actual nature of the CCS problems with no path to correcting them. Thus, CASE would ask, what was the purpose of the whole exercise?

3) The Decision is based on the presumption that the cause(s) of the CCS problems has/have been defined and identified.

Given that the NRC Staff’s preparation of 2014 EA and FONSI is, as the Decision states, deficient, pages 17- 37, included in that failure is the failure to even attempt to explore or determine what might actually be causing the conditions being experienced in the CCS. In its order of March 23, 2015, the Board rejected CASE’s suggested possible causes but that does not obviate the need for those in authority and ultimately responsible for the safe and ecologically neutral operation of the CCS from trying to determine what they might be. Can you solve a problem without clearly defining it? What ever corrective measures were sought by the applicant were accepted as necessary and sufficient without field testing or real time evaluation even in the face of exigent or emergency circumstances. Evaluations made in the past were held to be valid and applicable under unanticipated extraordinary conditions. Responsible evaluation of the July 2014 events in the CCS should have raised new questions and

answers specific to well defined and understood causes. That this did not happen is part of the 2014 EA deficiency which the Decision confirmed but which the “cure” does not address or remedy immediately or in the future

4) The Decision Conclusion did not address identified systemic issues or areas of responsibility/authority issues

The second paragraph on page 52 discusses the NRC Staff’s awareness in time of the applicant’s plans to request local authorization for additional withdrawals from the L-31E canal. This points to the apparent limited official flow of information between the NRC Staff and State and local agencies. The NRC is not routinely copied on State and local decisions and actions. For this hearing process, the Board had to direct the applicants attorney to provide information on FDEP DOAH actions on a case related to these deliberations.

The Board Memorandum and Order of March 23, 2015 states, at 22, footnote 115:

See Tr. at 77-78. According to CASE’s representative, “a bifurcated system has evolved where FDEP has responsibility without authority, and the NRC has authority without responsibility. . . . But if it turns out that the problem is being caused by something in the reactors like the up-rate, [the FDEP] do[es]n’t have the authority And the reverse, the NRC controls the reactor and they have delegated their authority to the DEP to look after how it affects the land and the people.”

The point of contact between the NRC and the State of Florida is Cindy Becker, Chief, Bureau of Radiation Control in the Florida Department of Health. One might ask if this office requires the full knowledge of the operation of a nuclear reactor as well as its ecological impacts. Should this office be the main link for the flow of information and administration of a nuclear reactor site. Isn't there more at issue than whether or not there are radiological leaks from the operation of the reactor. And, if those are the office's only concerns, where are its statements on the recent information regarding tritium in outside of the cooling canals documented in these proceedings?

In prosecuting this matter, CASE has observed these apparently dysfunctional attributes of the administration of the production of nuclear energy. If the Decision Conclusion posits that, despite the confirmed deficiencies of the NRC Staff in producing the 2014 EA, all is now well, a Review by this Board might look at these functional factors and ask if they are really problems, and, if so, should they be addressed and rectified. If the goal is informed and responsive decision making by the NRC Staff, and by State and local staff as well, then attention to these matters would seem to be in order. It depends where you set the bar. But, since the Decision now says all is well, nothing will change.

5) The Decision does not fulfill the letter or the spirit of NEPA

The Decision, at 40, states:

...the 2014 EA does not satisfy the "hard look" standard required under NEPA with respect to groundwater resources.

In CASE's INITIAL STATEMENT OF POSITION, TESTIMONY, AFFIDAVITS AND EXHIBITS (SOP) (INT-000), at 58-81. CASE presents extensive arguments regarding The National Environmental Policy Act (NEPA) presenting its Purpose and citing five uncontested requirements for those charged with administering governmental environmental policy. As CASE states in the SOP, at 60,

The foregoing NEPA guidelines provide the preparers of an EA with specific actions which must be included in it. The Purpose, (cited in the SOP) .. is a clear, noble and eloquent assertion by the framers to convey the seriousness of NEPA considerations and sets high standards of thoroughness and analysis.

CASE reasserts that statement and, despite the negative Board comment cited above, sees the Board's Conclusion regarding NEPA as confusing to witness and as disrespectful to the letter and spirit of NEPA and as accepting and justifying, by its own evaluation, failed work by the NRC Staff in preparing the 2014 EA and FONSI. This begs review.

6) The applicant has a history of delayed or non-compliance with mandated actions and statutes.

In the Decision, at 45, we read,

*The 14 MGD withdrawal issue stems from the April 16, 2013 letter from the Water District that informed FPL it was in **violation** of its agreement regarding the westward movement of saline water from the cooling canal system. (emphasis added)*

In the Notice Of Violation issued by Miami-Dade County to FPL on October 2, 2015 (INT-005), we read, at 1,

*...wells...outside of the CCS (show) chloride levels constitut(ing) violations of water quality standards...
... these elevated chloride levels exceed the applicable groundwater clean-up target level set forth in Section 24-44 and therefore constitute water pollution as defined in Section 24-5. on September 26, 2012k the (SFWMD) identified tritium as the trace for determining the presence of CCS water. A review of tritium data shows that the groundwater originating from the CCS has expanded beyond FPL property boundaries. (CASE: see Illustration from INT-046, page 12, below).*

Given these examples of non-compliance and violation, does it seem prudent to base the “cure” for the intervenor’s grievances on the assumption that all required measures, directives and planned actions will be adhered to any more stringently by the applicant?

iv) A concise statement why Commission review should be exercised.

The Board Conclusion does not follow from its discussion and presentation of the matter as described in the Initial Decision, pages 17 to 27. The statement in paragraph one of Page 38 amounts to an abrogation of the Board’s duty to represent the intent and hopes of the drafters’ of NEPA and the principles they were trying to preserve and extend beyond their lifetimes.

CASE holds that the Conclusion reached in the Initial Decision does not speak to the letter or the intent of Contention One or to the ecological and NEPA concerns concluding, at 56,

We find FPL’s analysis, modeling, and technical conclusions to be sound.³⁰² Furthermore, CASE has provided no evidence contradicting any of the information provided in FPL’s evidence in this regard. Consequently, we find that the supplemented

record of decision regarding the 2014 FPL license amendments now contains sufficient information to establish that the requisite NEPA “hard look” has been taken regarding FPL’s withdrawals from the L-31E canal system and that such withdrawals will not have a significant impact on saltwater intrusion in the Biscayne Aquifer.

As set out on page 4 above, FPL’s ecological analysis, modeling and technical conclusions have nothing to do with the the issues described and targeted in Contention One. It is not up to CASE to challenge the applicant’s evidence since the information presented is not related to whether or not the NRC Staff was deficient in its work and that NEPA was not honored *which CASE proved beyond all reasonable doubt*. What the Conclusion sees as following “Consequently” from the applicants review of the issues is not sufficient to constitute the “hard look” that NEPA requires nor does it lead the the FONSI conclusion.

ECOLOGICAL CONTRADICTIONS

FRESHWATER

Contention One sets out the deficiencies in the 2014 EA and FONSI as the subject of this inquiry so it is not really about the ecology of the Turkey Point Wetlands but, rather, about the deficiencies in the process and analysis of the NRC Staff preparation of the 2014 EA and FONSI. Any discussion in these proceedings of the specifics of the ecology is incidental to the proof or or challenges to Contention One. However, CASE does not agree with some of the ecological conclusions and statements in the Decision.

The Decision reflects limited understanding of or true concern for the complex interactive nature of the Turkey Point Wetlands water and

the bodies of water it abuts and with which it interacts as well limited knowledge of total impact of saltwater intrusion and the loss of freshwater on the area .

In the Decision, at 51, we read:

*Although CASE argues that FPL's withdrawals from the Biscayne Aquifer will cause significant adverse environmental impacts and that the water withdrawn from the Biscayne Aquifer is **freshwater**. ,270 **CASE submitted no evidence to support this claim.** (emphasis added)*

However, the Decision states, at 55,

*In this proceeding, both FPL and the NRC Staff presented expert testimony that the **freshwater** withdrawals from the L-31E canal will not have a significant impact on saltwater intrusion **because such withdrawals are limited to periods of high rainfall** when such water would otherwise flow into Biscayne Bay—as opposed to into the groundwater.293*

Although these contradictory statements show that the NRC Staff is conflicted on this point, all parties do agree that the L-31E Canal is a **freshwater** body as we read at xx in the Decision , CASE **did** present testimony to support this fact. On Page 31 of the transcript of the January 14, 2015 Hearing at Turkey Point we read:

9 MR. WHITE: The average conductivity, as
10 measured in microsiemens I believe, in the L31E canal
11 is around 400 microsiemens, 400 to 500, making it
12 **freshwater by the Miami Dade County standard of 500**
13 **microsiemens, and the state standard of 1,275 parts**
14 **per thousand.** Without sufficient freshwater, this
15 entire area would be ecologically dead.

Neither the NRC Staff nor FPL challenged this statement.

More important, the Decision does not address or redress the disastrous impact of the loss of freshwater on wildlife in the area as described extensively and exhaustively by CASE in its several pleadings. *For example, in CASE's Statement Of Position dated October 9, 2015 (INT-000) at 8, we read this statement by Dr. Christopher Kelble, (Oceanographer, NOAA, Miami, Florida):*

*Biscayne Bay has been shown to be a nursery ground for juvenile reef fish that live on the fringing reefs just outside of Biscayne Bay (i.e. east of Elliott Key). It is also an important habitat for other fish species. These **juvenile fish** are sensitive to high salinities often preferring salinities that are less than the open ocean, but higher than freshwater. It is my understanding that the area around Turkey Point, especially adjacent to the mainland, already experiences salinities greater than oceanic salinities at certain times of the year. If more freshwater is removed from this part of the ecosystem, it will increase salinities further in this area. I believe this will cause **physiological stress on the fish**, including these juvenile reef fish, in this area. This stress, I believe, will decrease the survivorship of fish in this area.*

So, the observation in the Decision, at 53, 54, that water withdrawals from the Biscayne Aquifer would only occur at certain times of the year overlooks the fact that freshwater withdrawals impact wildlife, the ecology of the area, the ability of the aquifer to resist salt water intrusion, and the impact on the economic and life sustaining needs of the residents **whenever** they occur creates an untenable situation *year round* for all who depend on freshwater. Clearly the loss of freshwater through evaporation from the CCS and the authorized withdrawals by the NRC, as well as state and local authorities does not allow for the fact that there just is not enough fresh water in the area to perform all of the functions it performs. The NRC

Staff came no where near addressing these concerns as NEPA would require.

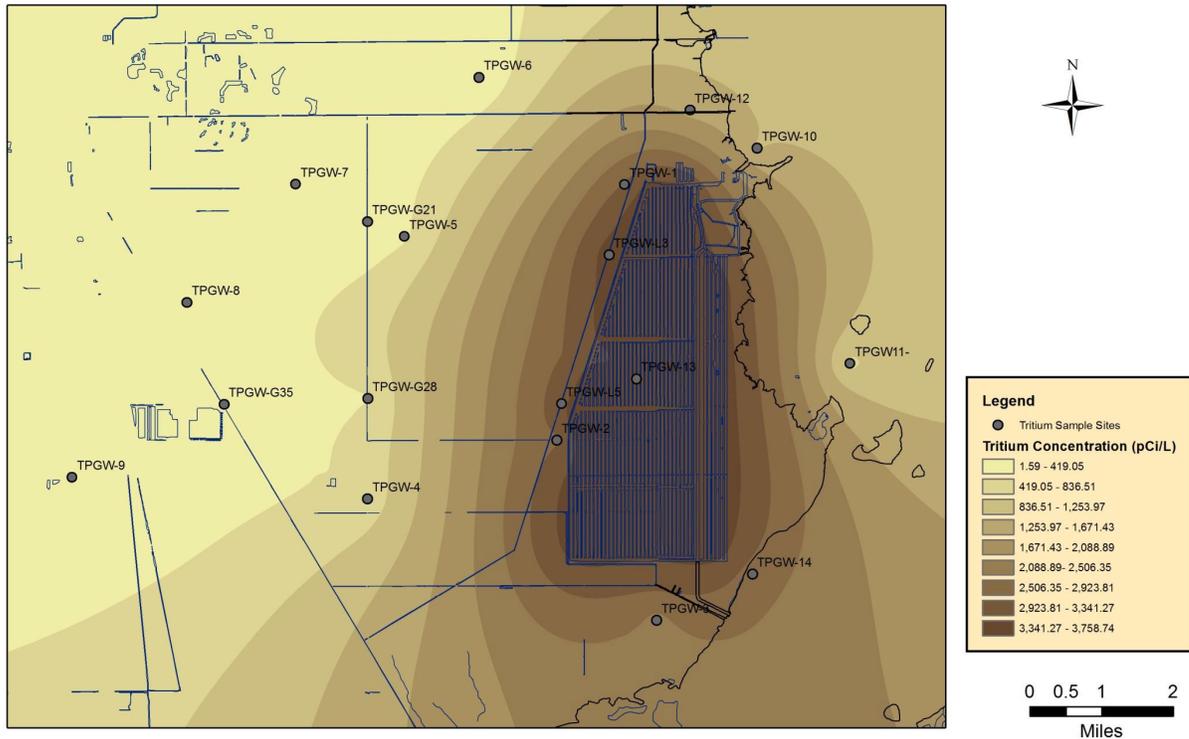
FRESHENING/PLUME

At 42 in the Decision we read:

*...by **freshening the canals** to a salinity in the range of 34 psu, the withdrawals from the Upper Florian Aquifer **are likely to reduce the spread of the hypersaline plume** in the Biscayne Aquifer. (emphasis added)*

“Freshening” the CCS by adding saline water to the CCS from any source only adds more salt to the CCS, which is already a major salt factory, meaning that more salt will be available to migrate from the CCS. And where will that salt, added to the 600,000 pounds of salt which already leaches from the CCS into the Biscayne Aquifer daily, go? It is a Sisyphean solution. When you add the increased amount of salt in the CCS due to an increased rate of evaporation of freshwater from the CCS (44 MGD), due to the NRC Staff’s authorized higher water temperatures in the CCS to the new salt from freshening, you have only made the problem worse. And how can adding more salt to the CCS possibly reduce the spread of the **hypersaline plume** in the Biscayne Aquifer? It can only add to it. At 40, the Decision states “ *...higher salinity, in turn, could contribute to saltwater migration and intrusion by increasing hydraulic pressure.*” As the illustration below shows (INT-062) the salt and mineral laden hypersaline plume, which descends from the CCS to the base of the Biscayne Aquifer (INT-000, at 12), has been spreading in all directions at the base of the Biscayne Aquifer for years.

Contours Based On Deep Well Tritium Results From the March 2013 Quarterly Sampling



And the proposed **freshening** of the CCS by the applicant under an FDEP Administrative Order (INT-004), dated December 24, 2014, and discussed at 42,43 of the Decision, received the following negative ALJ Recommendation on February 15, 2016 (FL DOAH Case No. 15-1746)

Based on the foregoing Findings of Fact and Conclusions of Law it is RECOMMENDED that the Department Of Environmental Protection rescind or amend it as described above. (emphasis added)

How did this review of these matters in these proceedings with less than exhaustive or scientific analyses and questionable attempts at mitigation correct or “cure” the 2014 EA preparation shortcomings and deficiencies described in pages 17-37 of the Decision? Perhaps a re-reading of CASE’s SOP (INT-000), as well as CASE’s PROPOSED FINDINGS OF FACTS AND CONCLUSIONS OF LAW (March 28, 2016) *as part of this requested review would be in order.*

THE WATER TABLE AND FRESHWATER

The narrow scope of the Decision’s discussion presents several shortcomings. Not discussed are the recharge rate and the lowering of the water table in the Biscayne Aquifer as problems as well as the need for freshwater elsewhere in the area by wildlife or the presence of potentially toxic cyanobacteria in the CCS.

Even though the timing of water withdrawal is proscribed, the *impact* of having withdrawn vast amounts, billions of gallons, eventually trillions of gallons, of **freshwater** from the Biscayne Aquifer extends throughout the year due to need to recharge the freshwater and the lowering of the water table in the area . As THE SCIENCE OF THE TURKEY POINT WETLANDS (INT-001) states, at 2,

Probably the most detrimental effect that ground water depletion causes is the lowering of the water table. The water table is the area underneath the ground that is completely saturated with freshwater and can be drilled into and extracted as a freshwater resource. As the water level declines, extraction of water may prove to be more difficult. If the water level drops below the well, then it must be re-drilled and set at a lower depth. This can be quite an expensive procedure, especially for a residential consumer with an

independent well system. As the water table declines, extraction of the freshwater becomes more difficult and expensive, and the rate of water that can usually be pumped out of the well will decline (USGS, 2005). Keeping this in mind, if water tables continue to decrease, extraction of groundwater for all different activities will become increasingly more expensive as time progresses.

In the Decision, at 46, we read,

FPL witness Mr. Andersen testified that FPL considers the 14 MGD from the Upper Floridan Aquifer to be “a long term solution” to address rising temperature and salinity in the cooling canal system.²³⁸ He further testified that the Upper Floridan Aquifer withdrawals are a “desirable” source of water because the salinity of the withdrawals is relatively low at 2.5 psu.²³⁹ Therefore, according to Mr. Anderson, “[t]he water in the [Upper Floridan Aquifer] is relatively fresh, compared to the water in the [cooling canal system]...

While Mr. Anderson’s observation might be true in the short run, the 2014 EA will hold for the balance of the authorized operation of Turkey Point 3 & 4, over 16 years. In addition to the water table concerns cited above, due to coning, the salt level of water withdrawn from the Floridan Aquifer, will not stay low. In THE SCIENCE OF THE TURKEY POINT WETLANDS (INT-001) at 2, we read,

...major pumping of the well water (can) lead to a cone of depression in the water table. (emphasis added) When this occurs, it will move the saltwater freshwater interface inland, resulting in a higher saline concentration in the aquifers' water, rendering it useless for human consumption, unless it is treated.

...

Coning will occur in both Aquifers. So, in the Floridan Aquifer, while it might start out at 2.5 psu, it will not stay at that level; the reactors are authorized for another 16 years. Water will be drawn to the well heads from the all parts of the Floridan Aquifer including the lower part which is actually seawater, 34 psu, so, eventually, seawater will be withdrawn for the CCS. There is a limited amount of low saline water at any one point in the Floridan Aquifer so this mitigation activity will eventually upset the natural balance in the area.

The foregoing citation demonstrates the complexity of these deliberations which the Decision is trying to simplify and minimize. Is it unreasonable to expect the NRC Staff to understand and account for these factors in evaluating the impact of mitigation proposals presented by an applicant? Does the Board Conclusion constitute such an analysis? Are in depth or exhaustive inquires anathema to the NRC Staff?

INTERACTION OF THE AQUIFERS

The following paragraph In the Decision, at 47, includes obfuscation and incorrect statements:

*...FPL and the NRC Staff also provided convincing evidence that FPL's withdrawals from the Upper Floridan Aquifer **will not have a significant negative impact on the Biscayne Aquifer saltwater/freshwater interface due to the confining layer between the two aquifers. NRC expert witness Mr. Ford testified that "the Floridan Aquifer is isolated from the Biscayne Aquifer by a thick confining unit . . . [that] acts as a barrier and isolates groundwater in the Floridan Aquifer from groundwater in the Biscayne Aquifer."**²⁴⁴ While Mr. Ford maintained that there is no interaction between the two aquifers,²⁴⁵ FPL expert Mr. Andersen testified that "there is an upward hydraulic gradient from the [Upper] Floridan [Aquifer] to the Biscayne*

[Aquifer].”246 Therefore, in Mr. Andersen’s opinion, there is “flow from the [Upper] Floridan Aquifer] into the Biscayne [Aquifer] and not vice-versa,”247 but any interaction between the aquifers is “very limited.”248 As to the nature of the confining unit, Mr. Andersen opined that the Upper Floridan Aquifer “is overlain by a sequence of limestone, dolomite, siltstone, claystone, sand and clay that form a semi-confining layer known as the Hawthorn Group that separates, both geographically and hydraulically the [Upper Floridan Aquifer] from the Biscayne Aquifer.”249 CASE offered no evidence to dispute the opinions of these expert witnesses. Based on this testimony, the Board is satisfied that it is more likely than not that FPL’s planned Upper Floridan Aquifer withdrawals will not negatively impact the saltwater/freshwater interface in the Biscayne

Relating the fact that there is limited permeability and connectivity between the Biscayne Aquifer and the Upper Floridan Aquifers and, therefore, by definition, that fact does not impact saltwater intrusion in the Biscayne Aquifer *does not really tell us anything*. However, putting wells into the Floridan Aquifer and depositing the water into the CCS which sits on the Biscayne Aquifer **creates** conductivity between them.

And, connecting these two concerns in this discussion is obfuscation since withdrawing water from the Biscayne Aquifer any where in the area will impact saltwater intrusion. No one really knows what drawing billions of gallons from the Floridan Aquifer will do; it is a gamble., It has been shown that the entire aquifer system is connected in some way at some level in many ways. The statements by Mr. Anderson and Mr. Ford confirm that there is some connectivity between the two aquifers. To say that it is “very limited’ is a safe but not easily defended position; it is *whistling past the grave yard*. Given the vast amounts of water which the applicant has and will have to withdraw from the aquifers, and the lack of knowledge of what the impact of doing so will be, the mitigation of the CCS problems is putting

the entire area at risk, just to produce energy. This is illustrated by the following report.

We read above:

“ CASE offered no evidence to dispute the opinions of these expert witnesses.”

CASE reported (INT-046):

*Dr. Donald McNeill (Univ. Miami) wrote a report in 2000 looking at the same question for the south M-D treatment plant. There, the presumed very thick low permeability zone was in fact only about 14 feet in thickness and lay just above the Boulder zone at a depth of 2,456'-1,443' depth. Ten of the 17 deep injection well for the effluent came out above the low permeability zone. As you can see from the depth difference between Turkey Point and Black Point, his low permeability surface rises up to the northwest. **Effluent injected at Turkey Point will flow up the surface's gradient to the NW and then probably N. IT will have lots of opportunities to encounter breaks in the permeability barrier in this lateral travel.***

So, a National Oceanic and Atmospheric Administration (NOAA) scientist dedicated to the subject of permeability in the the South Florida aquifers has cautioned that the confining layer is not as impermeable as some would have us believe. Is there any relation of this concern to approving the use of vast amounts of water from the aquifers? Did the question ever arise in any of the NRC Staff's analysis as to the impact of the mitigation measures the applicant was requesting on waters outside of the CCS? Ever? Anywhere? Wouldn't NEPA require that? Wouldn't a genuine concern for the welfare of flora, fauna and the residents and commercial interests in

the area foster such inquiries. Why are there accepted limits in this matters? And why do we not see field testing of proposed measures, only computer analyses?

The question of the permeability of the confining layers aquifers is one example of the complexity and interconnection of the Turkey Point Wetlands and the Biscayne Aquifer indicating that more than the cursory understanding and assessment by the NRC Staff is required. In light of this, for the Board to find the discussion and review alone of the narrow range of concerns presented and solutions/mitigation the applicant has offered can appreciably alter the documented negative impact of the operation of Turkey Point 3 & 4 on the CCS and the surrounding area and that it will *cure* all of the problems and that NEPA has been honored in the process is hard to accept. It does not fulfill the Board's obligation to the residents of the area for redress.

CONCLUSION

CASE holds that the Conclusion of the Initial Decision, that CASE proved Contention One and that the 2014 EA and FONSI is deficient with respect to its discussion of saltwater migration, saltwater intrusion, and aquifer withdrawals" demands and deserves a more meaningful remedy and stronger measures than the finding that: they "have been adequately remedied by the record evidence developed during this proceeding." That Conclusion fails to address the impact of the confirmed deficiencies of the NRC Staff's 2014 EA and FONSI and does not correct the polluting and caustic conditions which they failed to address nor does it assure that, in consideration of public interests and ecological sanctity, the future processing of such matters before the NRC Staff will be done in a more professional, responsible and considered manner. CASE rejects the finding that NEPA obligations

have been met and holds that the NRC Staff's disregard for the letter and spirit of NEPA was blatant and cannot be corrected by a retroactive rhetorical "cure." The Finding Of No Significant Impact was not and is not justified and the problems in the CCS, to this day, have not been scientifically and independently defined or effectively addressed by any agency nor is there any planned corrective action which has been approved by local authorities. This Board has the authority and the responsibility to impose effective remedial measures and its Conclusions and remedy in this matter constitute an abrogation of them. CASE's members deserve proper and appropriate redress and relief of their proven grievances and CASE requests a review of the Initial Decision, one which employs and exercises the full authority and responsibility of the ASLB and the NRC.

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

Respectfully submitted,

/S/ (Electronically) Barry J. White

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Dated at Miami, Florida
this 27th day of June, 2016

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
FLORIDA POWER & LIGHT COMPANY) Docket Nos. 50-250-LA
) and 50-251-LA
)
(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 PETITION FOR REVIEW have been submitted to the Electronic Information Exchange.

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

Respectfully submitted,

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