Attachment 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

E. Roy Hawkens, Chair
Dr. Michael F. Kennedy
Dr. William C. Burnett

In the Matter of	)	
	)	Docket Nos. 52-040 and 52-041
Florida Power & Light Company	)	
	)	ASLBP No. 10-903-02-COL-BD01
Turkey Point, Units 6 and 7	)	
	)	

JOINT INTERVENORS' STATEMENT OF MATERIAL FACTS AS TO WHICH A GENUINE ISSUE EXISTS, IN SUPPORT OF JOINT INTERVENORS' ANSWER TO FPL'S MOTION FOR SUMMARY DISPOSITION OF JOINT INTERVENORS' AMENDED CONTENTION 2.1

SOUTHERN ALLIANCE FOR CLEAN ENERGY, NATIONAL PARKS CONSERVATION ASSOCIATION, DAN KIPNIS, and MARK ONCAVAGE (collectively "Joint Intervenors"), hereby file, in support of their Answer to Florida Power & Light Company's ("FPL") Motion for Summary Disposition of Amended Contention 2.1, this Statement of Material Facts as to which Joint Intervenors contend there is a genuine issue to be heard.

As set forth below, several of the purported material facts included in FPL's "Statement of Material Facts As to Which No Genuine Issue Exists, In Support of Florida Power & Light Company's Motion for Summary Disposition of Joint Intervernors' Amended Contention 2.1" are in dispute and/or are not material and therefore do not entitle FPL to summary disposition.

1. FPL Statements of Material Facts #1-22: Not disputed.

2. FPL Statements of Material Facts #23-24: Disputed because the wastewater exhibits variability,

as evidenced by the previously reported detections of toluene, ethylbenzene, tetrachloroethylene, and heptachlor in previously collected samples. Further, the presence of heptachlor and volatile organic compounds in these previous wastewater samples of treated effluents indicates the South District Plant is not always capable of removing those chemicals. Owners and operators of municipal wastewater treatment plants are not typically required to even routinely test for these constituents, and it is unclear if wastewater from the South District Plant will even be tested for these constituents prior to being discharged to the Turkey Point facility. Quarles Third Aff. at ¶¶ 50-53.

3. FPL Statements of Material Facts #25-26: Not disputed.

4. FPL Statement of Material Fact #27: Disputed. FPL concluded that heptachlor has not been used in the United States for almost 30 years. That conclusion is not accurate according to the United States Environmental Protection Agency. The commercial use of heptachlor is still permitted for fire ant control in power transformers. In addition, homeowners can still use existing stocks of products containing heptachlor for termite control. Quarles Third Aff. at ¶ 49; Hazard Summary Heptachlor, EPA Technology Transfer Network, created in April 1992 and revised in January 2000, available at http://www3.epa.gov/airtoxics/hlthef/heptachl.html.

5. FPL Statements of Material Facts #28-32: Not disputed.

6. FPL Statements of Material Fact #33: Disputed because if the South District Wastewater Treatment Plant has the capacity to effectively treat the domestic and industrial wastewater that it receives, constituents such as heptachlor, toluene, ethylbenzene, and tetrachloroethylene would not be present in the reclaimed wastewater. Quarles Third Aff. at ¶¶ 50-53.

7. FPL Statements of Material Fact #34: Disputed because conventional municipal sewerage wastewater pollutants such as biological oxygen demand, pH, total suspended solids, and oil and grease that are monitored for sewage treatment plant permits are not always a direct

measure of constituents such as heptachlor and volatile organic compounds. The presence of these constituents in past sampling events indicates that the treatment plant is not always capable of treating all contaminants. Further, municipal wastewater treatment plants are not typically required to routinely test for constituents such as heptachlor and volatile organic compounds. Quarles Third Aff. at ¶¶ 52-53.

8. FPL Statements of Material Fact #35: Disputed because the mere presence of heptachlor and volatile organic compounds in past sampling events indicates that the treatment plant is not always capable of treating all contaminants. Further, owners and operators of municipal wastewater treatment plants are not typically required to routinely test for constituents such as heptachlor and volatile organic compounds. Lastly, it is unclear if wastewater from the South District Plant will even be tested for such constituents as heptachlor and volatile organic compounds prior to being discharged to the Turkey Point facility. Quarles Third Aff. at ¶ 53.

9. FPL Statements of Material Facts #36-41: Not disputed.

10. FPL Statements of Material Fact #42: Disputed. Constituent concentrations matter because there is no safe concentration of tetrachloroethylene and heptachlor for human consumption (Quarles Second Aff. at ¶¶ 15, 19). If the South District Wastewater Treatment Plan had the capacity to effectively treat the domestic and industrial wastewater it receives, these constituents would not be present. Quarles Third Aff. at ¶ 51, 53. Moreover, FPL has not demonstrated that (1) an adequate geologic confining layer with sufficient aerial extent, thickness, or lithological and hydraulic conditions exists on the Turkey Point site to prevent upward migration of injected municipal wastewater into an underground source of drinking water ("USDW"); (2) regulation will prevent leaks – especially in light of the many documented leaks that have occurred at other sites; and (3) monitoring will detect leaks before significant contamination has occurred. *Id.* at ¶¶ 9-38; 39-48.

11. FPL Statements of Material Facts #43-55: Not disputed.

12. FPL Statement of Material Fact #56: Disputed in so far as the subsurface geologic conditions needed to define adequate confining conditions to prevent the upward migration of injected wastewater into USDW's cannot be determined by data collected from a single well ("EW-1"). The 2012 report by Cunningham, et. al. also casts doubt about the conclusions made by FPL that adequate confining layers exist to prevent vertical migration of wastewater into the USDWs. Quarles Third. Aff. at ¶¶ 9-38.

13. FPL Statements of Material Facts #57-60: Disputed because FPL has not demonstrated that an adequate geologic confining layer with sufficient aerial extent, thickness, or lithological and hydraulic conditions exists on the Turkey Point site to prevent upward migration of injected municipal wastewater into an USDW. Quarles Third Aff. at ¶¶ 9-38.

14. FPL Statements of Material Fact #61: Not disputed only in terms of the Boulder Zone's capabilities to hydraulically accept the volume of injected wastewater.

15. FPL Statements of Material Facts #62-64: Not disputed.

16. FPL Statements of Material Facts #65-66: Disputed because the cited studies do not demonstrate that there is an adequate geologic confining layer with sufficient aerial extent, thickness, or lithological and hydraulic conditions at the Turkey Point site to prevent upward migration of injected wastewater into the USDWs Quarles Third Aff. at ¶ 9-38.

17. FPL Statement of Material Fact #67: Disputed because neither the McNabb study nor the DEIS discussed the nature and extent of the contamination at the South District and Sunrise locations, and how those locations compare to the proposed Turkey Point site, to support their determinations of "minor", "small", and "unlikely." FPL and the Nuclear Regulatory Commission staff should have discussed similarly impacted sites, investigative responses, corrective measures, and all associated costs to support their conclusions of minimal impact.

Quarles Third Aff. at ¶ 46.

18. FPL Statements of Material Facts #68-69: Not disputed.

19. FPL Statements of Material Facts #70-71: Not disputed in so far as page 5-18 of the Draft Environmental Impact Statement ("DEIS") states "[t]he review team believes that enhanced vertical flow through the confining units to the Upper Floridan aquifer is extremely unlikely." Joint Intervenors also do not dispute that the statement made on page 5-18 of the DEIS was based on the results of the EW-1 construction and testing. The conclusion that vertical flow through the confining units to the Upper Florida aquifer is "unlikely" and/or "extremely unlikely", however, is disputed because no sufficiently detailed subsurface investigation has ever been performed at the Turkey Point site to determine deep and widespread geologic conditions, that would either identify discrete bedrock pathways that allow vertical migration of injected wastewater or support the existence of adequate confining layers to protect USDWs. The geologic and hydrogeologic data collected by McNabb from the single well EW-1 do not support the conclusion that a confining layer of sufficient thickness, lithological characteristics, and hydraulic characteristics exists to prevent vertical migration of wastewater injected into the Boulder Zone from migrating into USDWs. Vertical migration can happen by first migrating horizontally until vertical pathways are encountered to allow the more buoyant municipal wastewater that is injected under higher pressures to rise. Quarles Third Aff. at ¶¶ 4, 9-38.

20. FPL Statements of Material Facts #72-79: Not disputed.

21. FPL Statement of Material Fact #80: Disputed in so far as the statement is not supported by Ex. 8 to FPL's Second Motion for Summary Disposition at 15, and therefore Joint Intervenors were unable to evaluate the statement.

22. FPL Statement of Material Facts #81-83: Not disputed.

23. FPL Statement of Material Fact #84: Disputed because FPL's plan to rely on injection well construction details and a groundwater monitoring systems after injection to provide an "early warning system" fails to recognize that: permitted injection wells have already failed in Florida; USDWs have already been contaminated; upward migration of wastewater into UDSWs can happen rapidly; and properly investigating and remediating contaminated aquifers may last for decades. Quarles Third Aff. at ¶¶ 39-45; 47-48.

24. FPL Statement of Material Fact #85: Disputed because although the Florida Department of Environmental Protection regulations require a "remedial action" if injected wastewater contaminates a USDW, the DEIS did not specify if any similar remedial actions have ever been required for documented cases where municipal wastewater has contaminated a USDW. Quarles Third Aff. at ¶ 46.

25. FPL Statement of Material Fact #86: Disputed because FPL's statement that monitoring wells will be "continuously monitored and tested" implies that daily samples will be collected – instead of the sampling or testing up to five years apart. Quarles Third Aff. at ¶¶ 41, 42, and 44.

26. FPL Statement of Material Facts #87-89: Not disputed.

27. FPL Statement of Material Fact #90: Not disputed in so far as the statement accurately reflects what it is the DEIS. The DEIS conclusion, however, is disputed because there have been 18 documented instances where deep well injection of wastewater has contaminated an USDW. Studies have shown that, notwithstanding monitoring programs, contamination can begin immediately upon injection and be widespread before detection. Quarles Third Aff. at ¶¶ 39-42; 45-48.