


United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	FLORIDA POWER & LIGHT COMPANY (Turkey Point Units 6 and 7)
	ASLBP #: 10-903-02-COL-BD01
	Docket #: 05200040 05200041
	Exhibit #: NRC-001-R2-00-BD01
	Admitted: 05/02/2017
	Rejected:
Other:	Identified: 05/02/2017 Withdrawn: Stricken:

NRC-001-R2

Submitted: 04/14/2017

In the Matter of Florida Power & Light Company
(Combined Operating License for Turkey Point Nuclear Generating Units 6 and 7)
Docket Nos. 50-040-COL and 50-041-COL
ASLBP No. 10-903-02-COL-BD01
2017 Evidentiary Hearing

NRC Staff Hearing Exhibits¹

[Party] Exhibit #	Witness	Description
NRC-001-R2	NRC Staff	NRC Staff Hearing Exhibit List
NRC-002-R2	NRC Staff	NRC Staff Testimony of Ann L. Miracle, Daniel O. Barnhurst, Paul D. Thorne, and Alicia Williamson-Dickerson Concerning Contention NEPA 2.1 (Impacts of Deep Well Injection of Four Constituents in Cooling-Tower Blowdown)
NRC-003	NRC Staff	Statement of Professional Qualifications of Ann L. Miracle
NRC-004	NRC Staff	Statement of Professional Qualifications of Daniel O. Barnhurst
NRC-005	NRC Staff	Statement of Professional Qualifications of Paul D. Thorne
NRC-006	NRC Staff	Statement of Professional Qualifications of Alicia Williamson-Dickerson
NRC-007A	NRC Staff	NUREG-2176, Vol. 1, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7 (Draft Report for Comment) (Feb. 2015).

¹ Exhibit titles should not exceed 200 characters and should not include ADAMS Accession Numbers.

[Party] Exhibit #	Witness	Description
NRC-007B	NRC Staff	NUREG-2176, Vol. 2, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7 (Draft Report for Comment) (Feb. 2015).
NRC-008A	NRC Staff	NUREG-2176, Vol. 1, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7, Chapters 1 to 6 (Final Report) (Oct. 2016).
NRC-008B	NRC Staff	NUREG-2176, Vol. 2, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7, Chapters 7 to 12 (Final Report) (Oct. 2016).
NRC-008C	NRC Staff	NUREG-2176, Vol. 3, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7, Appendices A to K (Final Report) (Oct. 2016).
NRC-008D	NRC Staff	NUREG-2176, Vol. 3, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7, Appendices E (Final Report) (Oct. 2016).
NRC-009		EXHIBIT NUMBER NOT USED
NRC-010	NRC Staff	EPA 816-R-03-010, Relative Risk Assessment of Management Options for Treated Wastewater in South Florida (Apr. 2003) (TN4759).
NRC-011	NRC Staff	Bloetscher, F., J.D. Englehardt, D.A. Chin, J.B. Rose, G. Tchobanoglous, V.P. Amy, and S. Gokgoz. "Comparative Assessment of Municipal Wastewater Disposal Methods in Southeast Florida." <i>Water Environment Federation</i> 77(5):480-490, Alexandria, Virginia. (2005) (TN4756). FULL TEXT COPYRIGHT

[Party] Exhibit #	Witness	Description
NRC-012	NRC Staff	Dausman, A.M., C. Langevin, M.C. Sukop, and V. Walsh. "Saltwater/Freshwater Interface Movement in Response to Deep-Well Injection in a Coastal Aquifer." In <i>Proceedings of the 20th Salt Water Intrusion Meeting, June 23-27, 2008, Naples, Florida</i> . (2008) (TN4757).
NRC-013	NRC Staff	Florida Keys Aqueduct Authority. "Where Does Our Water Come From?" (2014) (TN3649).
NRC-014	NRC Staff	Reese, R.S. U.S. Geological Survey Water-Resources Investigations Report 94-4010, <i>Hydrogeology and the Distribution and Origin of Salinity in the Floridan Aquifer System, Southeastern Florida</i> . Tallahassee, Florida (1994) (TN1439).
NRC-015		EXHIBIT NUMBER NOT USED
NRC-016		EXHIBIT NUMBER NOT USED
NRC-017	NRC Staff	USGS, Impact of Anthropogenic Development on Coastal Ground-Water Hydrology in Southeastern Florida, 1900-2000 (2005) (TN110).
NRC-018	NRC Staff	Meyer, F.W., U.S. Geological Survey Professional Paper 1403-G, <i>Hydrogeology, Ground-Water Movement, and Subsurface Storage in the Florida Aquifer System in Southern Florida</i> . (1989) (TN2255).
NRC-019	NRC Staff	Fla. Admin. Code 62-528 Underground Injection Control (2010).
NRC-020	NRC Staff	L-2012-089, Letter from William Maher to NRC RE: Submittal of Underground Injection Control Exploratory Well- Final Casting Setting Depth Recommendation (March 7, 2012) (TN1264).

[Party] Exhibit #	Witness	Description
NRC-021	NRC Staff	Underground Injection Control Program-Revision to the Federal Underground Injection Control Requirements for Class I Municipal Disposal Wells in Florida, 70 Fed. Reg. 70,513, 70,532 (Nov. 22, 2005).
NRC-022	NRC Staff	EPA 815-F-05-033, <i>Fact Sheet: EPA Provides a Regulatory Alternative for Class I Municipal Disposal Wells in Specific Counties in Florida</i> (Nov. 2005) (TN4766).
NRC-023	NRC Staff	Miami-Dade Water and Sewer Department Comprehensive Annual Financial Report (Sept. 30, 2014) (TN4758).
NRC-024		EXHIBIT NUMBER NOT USED
NRC-025	NRC Staff	Fla. Admin. Code 62-600 (2012) (TN1268).
NRC-026	NRC Staff	John Bell et al, "Stripping of Volatile Organic Compounds at Full-Scale Municipal Wastewater Treatment Plants." <i>Water Environment Research, Vol 65, No.6</i> , at 708-716 (Oct.1993) (Melcer et al, 1993). FULL TEXT COPYRIGHT
NRC-027		EXHIBIT NUMBER NOT USED
NRC-028	NRC Staff	Groundwater Contamination Transport and Remediation, Bedient, Rifa, Newell, pp. 216-218 (1993). FULL TEXT COPYRIGHT.
NRC-029	NRC Staff	EPA/540/2-91/022, Engineering Bulletin, Air Stripping of Aqueous Solutions, (Oct.1991) (EPA Engineering Bulletin).
NRC-030-R	NRC Staff	Turkey Point Plant, Units 6 and 7 COL Application, Part 3— Environmental Report. Rev. 6, Selected Portions of Sections 3.1, 3.3 and 3.4 (2014) (TN4058).

[Party] Exhibit #	Witness	Description
NRC-031	NRC Staff	Ju-Chang Huang & Chii Shang, Handbook of Environmental Engineering, Volume 4: Advanced Physicochemical Treatment Processes, Chapter 2, Air Stripping 47-79 (L. K. Wang & Y.-T. Hung, N. K. Shammass eds.) (Huang and Shang).
NRC-032	NRC Staff	ATSDR Public Health Statement, Heptachlor and Heptachlor Epoxide, CAS#76-44-8 and 1024-57-3 (Aug. 2007).
NRC-033	NRC Staff	EPA 811-F-95-003-T, <i>National Primary Drinking Water Regulations</i> (Oct. 1995).
NRC-034		EXHIBIT NUMBER NOT USED
NRC-035	NRC Staff	EPA Protecting Drinking Water Through Underground Injection Control (Mar. 2012) (TN4782).
NRC-036		EXHIBIT NUMBER NOT USED
NRC-037	NRC Staff	EPA 816-F-09-004, <i>National Primary Drinking Water Regulations</i> (May 2009) (TN4901).
NRC-038	NRC Staff	EPA Method 624: Purgeables, Appendix A to Part 136 – Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (1984) (TN4899).
NRC-039	NRC Staff	James A. Miller, “HA 730-G, Ground Water Atlas of the United States: Alabama, Florida, Georgia, and South Carolina” (1990) (TN550).
NRC-040	NRC Staff	Ronald S. Reese and Emily Richardson, “Synthesis of the Hydrogeologic Framework of the Floridan Aquifer System and Delineation of a Major Avon Park Permeable Zone in Central and Southern Florida” (2008) (TN3436).

[Party] Exhibit #	Witness	Description
NRC-041	NRC Staff	South Florida Water Management District Planning Document Lower East Coast Water Supply Plan Update (2013) (TN3461).
NRC-042		EXHIBIT NUMBER NOT USED
NRC-043	NRC Staff	R. Maliva et al.; "Vertical Migration of Municipal Wastewater in Deep Injection Well Systems, South Florida, USA", <i>Hydrogeology Journal</i> 15: pp1387–1396, (2007) (TN1483). FULL TEXT COPYRIGHT.
NRC-044	NRC Staff	R. Starr et al.; "Evaluation of Confining Layer Integrity Beneath the South District Wastewater Treatment Plant, Miami-Dade Water and Sewer Department, Dade County, Florida" (2001) (TN1251).
NRC-045	NRC Staff	Underground Injection Control Program-Relative Risk Assessment of Management Options for Treated Wastewater in South Florida; Notice of Availability, 68 Fed. Reg. 23,673, 23,677 (May 5, 2003) (TN3658).
NRC-046	NRC Staff	Virginia Walsh & Rene M. Price, "Determination Of Vertical And Horizontal Pathways Of Injected Fresh Wastewater Into A Deep Saline Aquifer (Florida, USA) Using Natural Chemical Tracers", <i>Hydrogeology Journal</i> (2010) (TN3656). FULL TEXT COPYRIGHT.
NRC-047	NRC Staff	Dausman et al., "Hypothesis Testing of Buoyant Plume Migration Using a Highly Parameterized Variable-Density Groundwater Model at a Site in Florida, USA." <i>Hydrogeology Journal</i> 18(1):147-160 (2010) (TN4760). FULL TEXT COPYRIGHT.
NRC-048	NRC Staff	McNeill, D.F. "A Review of Upward Migration of Effluent Related to Subsurface Injection at Miami-Dade Water and Sewer South District Plant". Final Report, Coral Gables, Florida (2000) (TN4572). FULL TEXT COPYRIGHT.

[Party] Exhibit #	Witness	Description
NRC-049	NRC Staff	NUREG-2176, Supplement 1, Environmental Impact Statement for Combined Licenses (COLs) for Turkey Point Nuclear Plant Units 6 and 7 (Dec. 2016).
NRC-050	NRC Staff	Cunningham et al., "Near- Surface, Marine Seismic-Reflection Data Define Potential Hydrogeologic Confinement Bypass in the Carbonate Floridan Aquifer System, Southeastern Florida" (2012) (TN4576). FULL TEXT COPYRIGHT.
NRC-051	NRC Staff	USGS "Integrating Seismic-Reflection and Sequence-Stratigraphic Methods to Characterize the Hydrogeology of the Floridan Aquifer System in Southeast Florida" (2013) (TN4573).
NRC-052	NRC Staff	USGS "Integration of Seismic-Reflection and Well Data to Assess the Potential Impact of Stratigraphic and Structural Features on Sustainable Water Supply from the Floridan Aquifer System, Broward County, Florida" (2014) (TN4051).
NRC-053	NRC Staff	Kevin J. Cunningham, "Seismic-Sequence Stratigraphy and Geologic Structure of the Floridan Aquifer System Near "Boulder Zone" Deep Wells in Miami-Dade County, Florida" (2015) (TN4574).
NRC-054		EXHIBIT NUMBER NOT USED
NRC-055	NRC Staff	L-2013-216, Letter from William Maher to NRC, RE: Response to NRC Request for Additional Information Letter No. 072 (eRAI 6985) - SRP Section 11.02- Liquid Waste Management Systems (Aug. 9, 2013) (TN3931).
NRC-056	NRC Staff	Florida Power & Light Co., Report on the Construction and Testing of Class V Exploratory Well EW-1 at the Florida Power & Light Company Turkey Point Units 6 & 7 (Sept. 2012) (TN1577).

[Party] Exhibit #	Witness	Description
NRC-057	NRC Staff	Florida Power & Light Co., Report on the Construction and Testing of Dual-Zone Monitor Well DZMW-1 at the Florida Power & Light Company Turkey Point Units 6 & 7 (Sept. 2012) (TN4053).
NRC-058	NRC Staff	Freeze, Allan R. and John A. Cherry. <i>Groundwater</i> . Prentice Hall, Inc. (1979) (TN3275). FULL TEXT COPYRIGHT.
NRC-059	NRC Staff	USGS, Open-File Report 2014-113, "Integration of Seismic-Reflection and Well Data to Assess the Potential Impact of Stratigraphic and Structural Features n Sustainable Water Supply from the Floridan Aquifer System, Broward County, Florida". (Aug. 2014)
NRC-060	NRC Staff	EPA Method 608: Organochlorine Pesticides and PCBs (1984) (TN4898).
NRC-061	NRC Staff	NUREG-1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants (Initial ESRP, 1999).
NRC-062	NRC Staff	Lester J. Williams and Eve L. Kuniatsky, "Revised Hydrogeologic Framework of the Floridan Aquifer System in Florida and Parts of Georgia, Alabama, and South Carolina" (2015) (TN4577).
NRC-063	NRC Staff	MHCDEP-14-0041, Letter from David McNabb to Joseph May, RE: Florida Power & Light Company Turkey Point Units 6 & 7 Class I Injection Well DIW-1 Short-Term Injection Test Technical Memorandum; Permit #293962-002- UC (April 1, 2014) (TN4052).
NRC-064	NRC Staff	McNeill, D.F. A Geological Review of the Confining Capability of a Regional Dolomite Unit: Application to the MDWAS South District WWTP. Coral Gables, Florida (2002) (TN4571)

[Party] Exhibit #	Witness	Description
NRC-065	NRC Staff	Walsh, V.M. and R.M. Price. 2008. "Tracing Vertical and Horizontal Migration of Injected Fresh Wastewater into a Deep Saline Aquifer using Natural Chemical Tracers." <i>20th Salt Water Intrusion Meeting Proceedings, June 23–27, 2008, Naples, Florida</i> . U.S. Geological Survey, Ft. Lauderdale, Florida. (TN3657).
NRC-066	NRC Staff	FPL answer to RAI 6985 (January 15, 2014).
NRC-067	NRC Staff	Safe Drinking Water Act 42 U.S.C. § 300f et seq. (TN1337).
NRC-068	NRC Staff	Fla. Admin. Code 62-625 (2010).
NRC-069	NRC Staff	EPA, How EPA Regulates Drinking Water Contaminants (2016), <i>available</i> at https://www.epa.gov/dwregdev/how-epa-regulates-drinking-water-contaminants .
NRC-070	NRC Staff	L-2012-350, Letter from William Maher, Senior Licensing Director, Florida Power & Light Company, to NRC, RE: Clarification Response to NRC Request for Additional Information Letter 1112081 (RAI 5765) Related to ESRP Section 4.2 Water-Related Impacts (Nov. 14. 2012)
NRC-071	NRC Staff	Turkey Point Well Log
NRC-072	NRC Staff	NRC Staff Rebuttal Testimony Of Ann L. Miracle, Daniel O. Barnhurst, And Paul D. Thorne Concerning Contention 2.1 (Impacts of Deep Well Injection of Four Constituents in Cooling-Tower Blowdown)
NRC-073	NRC Staff	Affidavit of Alicia Williamson-Dickerson
NRC-074	NRC Staff	Affidavit of Ann L. Miracle
NRC-075	NRC Staff	Affidavit of Daniel O. Barnhurst

[Party] Exhibit #	Witness	Description
NRC-076	NRC Staff	Affidavit of Paul D. Thorne