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February 1, 2019

Mr. Marc Harris, P.E.,
Industrial Wastewater Program
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399

CERTIFIED MAIL NO: 7001 2510 0001 1765 4107
RETURN RECEIPT REQUESTED

RE: Comments to FDEP's – Notice of Draft - Draft NPDES Permit (Permit No: FL0001562) Renewal for the Wastewater Treatment and Effluent Disposal Facility for the Units 3, 4, and 5 at the Florida Power and Light Turkey Point facility located at 9760 SW 344 Street, Miami-Dade County, Florida.

Dear Mr. Harris:

The Miami-Dade County Division of Environmental Resources Management (DERM) appreciates the opportunity to provide comments, pursuant to the provisions of 62-620.555, Florida Administrative Code (F.A.C.), to the referenced draft permit received via email on January 2, 2019. DERM also appreciates the opportunity to have provided verbal comments and technical input into the draft permit development process.

DERM's comments to the draft permit are provided as an attachment to this letter and for ease of reference are divided into sections providing general recommendations followed by specific recommendations for modification to the language of the draft permit.

DERM looks forward to continued collaboration with the Department (including providing input to any amendments to the monitoring program) to ensure protection of the critical resources adjacent to the FPL Turkey Point Property (the Biscayne Bay Aquatic Preserve, Biscayne National Park, Florida Keys National Marine Sanctuary).

If you have any questions concerning the comments herein provided in response to the referenced draft permit, please contact Wilbur Mayorga, P.E., (wilbur.mayorga@miamidade.gov) or at (305) 372-6700.

Sincerely,

Lee N. Hefty, Director
Division of Environmental Resources Management

Attachment

cc: Allan Stodghill, FDEP Allan.Stodghill@dep.state.fl.us
Frank Wall, FDEP Frank.Wall@FloridaDEP.gov

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ATTACHMENT

A. GENERAL RECOMMENDATION

1. The polygon identified as "Turkey Point" in Figures 1 and 2 of the draft permit is not specific to the facility governed by the referenced permit. The figures depict FPL's property ownership in the areas adjoining the Turkey Point Facility, including the Everglades Mitigation Bank, and in addition also includes segments of publicly owned lands (L31E canal and associated easements, SW Card Sound Road, etc.). Therefore, DERM recommends that the permit include an accurate description of the boundaries, as well as a map, of the facility governed by the permit.
2. Paragraph 1 of page 1 of the Notice of Draft (NOD) defines the facility/activities subject to the permit as "the wastewater treatment and effluent disposal facilities for the three steam-electric generation units (Unit 3, 4 and 5) at the Turkey Point Power Plant". Notwithstanding, the definition in the NOD, the permit as a stand-alone document should also contain a definition of the "permitted facility/permitted activity".
3. The draft permit provides that the authorized discharge should not "impair the reasonable and beneficial use of adjacent waters" and "shall not cause a violation of the minimum criteria for groundwater." Given that the adjacent groundwater (outside the G-III designation) is classified as G-II groundwater, the permit should clearly define, with associated map, the G-II groundwater compliance points (i.e. locations where the permittee is required to ensure compliance with the criteria and numerical standards provided in 62-520.420, F.A.C.).
4. The draft permit indicates, "... seepage, to the extent that it occurs, shall not cause or contribute to a violation of the surface water quality standards in Rule 62-302, F.A.C." The draft permit also states that, "The permittee's discharges to groundwater shall not impair the designated use of contiguous surface waters." Given the foregoing, Section II.A.2 of the permit should, in addition to requiring compliance with the Thermal Surface Water Criteria provided in 62-302.530(l)(a) F.A.C., also require compliance with the Minimum Criteria provided in 62-302.500(1), F.A.C., and the applicable numerical and narrative criteria provided in 62-302.530, F.A.C.
5. The permit should clearly define, with associated map, the surface water compliance points (i.e., locations where the permittee is required to demonstrate compliance with applicable surface water criteria, numerical standards, OFW anti-degradation criteria, etc., provided in 62-302 F.A.C.). Additionally, because each compliance point may be subject to different standards or criteria, the permit should indicate the applicable regulatory limit for each compliance location.
6. Footnotes 1 and 2 of the draft permit states that Consent Order OGC File Number 16-0241, paragraphs 19 and 20 and 19 and 22; respectively, stipulate remedial actions and timelines for achieving compliance with groundwater minimum criteria of Rule 62-520.400, F.A.C. (in the case of footnote 1) and F.A.C 62-520.310(2) F.A.C (in the case of footnote 2). The footnotes should clarify that the remedial actions and timelines in the Consent Order relate to documented existing violations and are not intended to address any potential future violations.
7. The draft permit acknowledgements that some seepage of water from the CCS may reach surface waters. The FDEP Warning Letter dated April 25, 2016¹ referred to "compelling evidence that

¹ FDEP #WL16-000151W13SED paragraph 1 page 1

water originating from the CCS is reaching tidal surface waters connected to Biscayne Bay.” Additionally, in requiring FPL to prevent releases of groundwater from the CCS to surface waters connected to Biscayne Bay that results in exceedances of surface water quality² the Consent Order OGC File Number 16-0241, implicitly acknowledges indirect discharge from the CCS to adjacent surface waters. Given the above, the draft permit required monitoring program is inadequate to allow the Department to detect any release to surface water, to evaluate the contaminant transport mechanism(s) involved in such release(s), to assess the impacts of any such release(s) and to determine compliance with the applicable water quality standard or criteria. Specifically, the draft permit provides for very limited monitoring around the perimeter of the CCS to the east, south and north. Therefore, additional surface water and as appropriate shallow groundwater monitoring is required to assist in the understanding of the dynamics of any interaction between the CCS and the surrounding surface waters and to evaluate compliance at the applicable regulatory boundaries.

8. The draft NPDES permit provides that “Wastewater shall not contain components that, alone or in combination with other substances or in combination with other components of the discharge: ... c. Are acutely toxic; or d. Are present in concentrations which are carcinogenic ... to significant, locally occurring, wildlife or aquatic species;”. To provide the Department the mechanism for evaluating compliance with the above permit condition, Section II.D of the permit, should include requirements for toxicity monitoring, testing and reporting.
9. Much of the CCS is located within federally designated critical habitat for the American crocodile. This species is protected as a Threatened species by the Federal Endangered Species Act (ESA), and as a Federally-Designated Threatened species by Rule 68A-27, F.A.C. Therefore, the permit should include conditions, as appropriate, to ensure CCS operations related to water quality and maintenance activities are protective of crocodiles and their habitat consistent with the requirements of the ESA.

B. SPECIFIC RECOMMENDATIONS FOR MODIFICATIONS TO DRAFT PERMIT LANGUAGE

For ease of reference suggested deletions are represented as strikethroughs and modifications are underlined within an excerpt from the body of the section of the permit being modified. A concise rationale for each recommended modification is provided in italics below each item.

1. FACILITY DESCRIPTION

The Turkey Point ~~facility~~ property (Figure 1) is located on approximately 11,000 acres in unincorporated southeast Miami-Dade County about 25 miles south of Miami and about nine miles east of Florida City and Homestead. Biscayne National Park lies adjacent to the northeastern ~~and eastern~~ portions of the facility. The Biscayne Bay Aquatic Preserve is north northeast and southeast of the facility. Everglades National Park is to the south and west (Figure 2). The boundaries of the facility governed by this permit are provided in Figure X.

Rationale: See General Comment A.1.

2. REUSE OR DISPOSAL:

Groundwater Discharge: The CCS is not lined and is authorized to discharge to Class G-III groundwater. Groundwater monitoring requirements for this facility are in accordance with Section

² Consent Order OGC File Number 16-0241 paragraph 19

I of this permit. The discharge shall meet the Class G-III groundwater standards of Rule 62-520.430, F.A.C. The discharge shall not impair the reasonable and beneficial use of adjacent waters. Rule 62-520.400(1)(f), F.A.C. The 1972 Environmental Impact Statement acknowledges that some seepage of water from the CCS may reach surface waters. To the extent that such seepage occurs, it shall not cause or contribute to a violation of the surface water quality standards or criteria in Chapter 62-302, F.A.C. This authorization to discharge shall not be deemed to pre-empt or prohibit the regulatory implementation, adoption, continuation or enforcement of standards or criteria established by a local government through a local pollution control program.

Rationale: 1) Chapter 62-302, F.A.C contains both narrative criteria and numerical standards 2) The inserted language is intended to preserve MDC's regulatory authority under the County's Home Charter Rule.

Groundwater Monitoring Group – G-001: A new permitted ~~outfall~~ series of wells that monitors groundwater

Rationale: Editorial, consistent with language for surface water and pore water stations

3. I- GROUNDWATER MONITORING REQUIREMENTS

I.1. The permittee's discharges to ground water shall not cause a violation of the minimum criteria for ground water specified in Rules 62-520.400 and 62-520.430, F.A.C.¹

I.2. The permittee's discharge to groundwater shall not cause or contribute to a violation of groundwater quality standards or criteria specified in Rules 62-520.400 and 62-520.420, F.A.C. in adjacent or contiguous groundwaters.

Rationale: Insertion and renumbering to provide for protection of adjacent G-II groundwater.

I.2 (to be renumbered as I.3.) The permittee's discharges to groundwater shall not impair the designated use of contiguous surface waters: [62-520.310(2)] nor cause water quality degradation within areas designated as Outstanding Florida Waters [62-302.700(9)(a)1, 62-302.700(9)(h)5, and 302.700(9)(h)6, F.A.C.] or Outstanding National Resource Waters [(62-302.700(10)(a)1, F.A.C.)]

Rationale: DERM recognizes that the FPL Turkey Point facility pre-dates the OFW and ONRW designations provided in the above rule citations. However, the provisions of 62-4.242(2) and (3), F.A.C. do not inherently exempt the referenced facility from the antidegradation provisions of 62-302-700(1).

I.4 Comment provided below the table listing the analytical parameters for groundwater

*The above listed parameters are report except for Nitrite plus Nitrate, Total (as N), which has a limit of 10 mg/L in samples collected from monitoring wells TPGW-1, and TPGW-18.

Comment only

[The intent and applicability of this comment is unclear. Is the intent to require compliance with the Nitrate plus Nitrite standard in monitoring wells TPGW-1 and TPGW-18 only?]

I.4. ** Because L and G wells are not automated, automated parameters shall be collected as grab samples on a quarterly basis ~~shall be collected~~. In addition, quarterly temperature and specific conductance profiles shall be collected at 1-foot intervals.

Rationale: Provides clarity and frequency of sampling.

I.6. In the event the water quality monitoring shows an exceedance of the applicable water quality standards or further deterioration of existing water quality for N any parameter required under the monitoring program the permittee shall arrange for a confirmation re-sampling within 15 days after the permittee's receipt of laboratory results. If the initial results demonstrate or the re-sampling confirms groundwater exceedances or impacts, the permittee shall notify the Department in writing within 14 days of this finding and the permittee shall be required to implement Department approved corrective action to address the water quality violation and/or impacts within the timetable provided by the Department.

Rationale: The confirmatory sampling requirement is applicable to all parameters and should not be restricted to N. DERM recommendation adds a mechanism to require corrective action for confirmed violations

4. SECTION II – SURFACE WATER EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

II. A.3. The permittee shall not increase the temperature of the surrounding surface water bodies beyond the CCS periphery so as to cause substantial damage or harm to the aquatic life or vegetation therein or interfere with beneficial uses assigned to the surface water bodies. [62-302.520(1)(a)].

II.A.4. The discharges approved by this permit shall not cause or contribute to a violation of the surface water quality standards or criteria in Rule 62-302, F.A.C. in the surrounding surface water bodies beyond the CCS periphery (point of compliance).

Rationale: See General Comment A.4.

~~II. A.4.~~ II.A.5. Surface water samples shall be taken at the monitoring locations described below for the parameters listed in Permit Condition II.A.3.

DERM recommends adding two surface water monitoring stations, specifically:

- a. TPBBSW-6B - an existing monitoring station currently required by DERM's Class I Permit CLI-2014 0312. The station is located near the mouth of the Barge Basin and will remain as the compliance station after the partial filling of the Barge Basin.
- b. TPBBSW-7B - is also an existing monitoring station required by DERM's Class I Permit CLI-2014 0312 and which continues to be monitored. The station is located in the Turtle Point Canal about 30 to 50 feet east of the CCS eastern berm. TPBBSW-7B is to be replaced by a new monitoring station after the partial filling of the Turtle Point Canal is completed; the placement of the new station will require regulatory approval.

Rationale: The suggested stations are already required pursuant to other regulatory programs and are important with respect to evaluating the success of the remedial action stipulated in paragraph 19 and 21 of the FDEP Consent Order (OGC File 16-0241).

II.A.6 The permittee shall within 6 months of issuance of this permit submit to the Department for review and approval a plan for additional monitoring (groundwater and surface water) in all cardinal directions (as appropriate) surrounding the facility and at the applicable compliance

points based jurisdictional regulatory boundaries (e.g., the property boundary, the OWF boundary, the groundwater/surface water interface, canals, etc.) to evaluate compliance with the applicable water quality standards or criteria including but not limited to those provided in 62-302, and 62-520, F.A.C. The permittee shall implement Department approved plan within the timetable provided by the Department. The data acquired by FPL as well as the analytical results from the existing individual stations shall be made available to the regulatory agencies via FPL's EDMS on a continuous basis.

Rationale: Additional monitoring required to fill data gaps given the limited monitoring locations in some direction especially given the acknowledgement that some seepage of water from the CCS may reach surface waters, the documentation of actual and potential impacts to surface water based on data collected pursuant to other regulatory programs. See General Comment A.7.

II.B.3 The daily salinity readings from the CCS and Biscayne Bay shall be compiled each month to create a monthly average for each of the CCS and Biscayne Bay monitoring sites. The automated hourly data as well as the analytical results from the existing individual stations shall be made available to the regulatory agencies via FPL's EDMS.

Rationale: Transparency

II.D.1 The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with a Department approved methodology or in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.

Rationale: The insertion recognizes that the analytical methodology for tritium is not an approved methodology under the state and federal rules.

II.D.10. Discharge of Any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream that ultimately may be released to the CCS or waters of the State is prohibited unless specifically authorized elsewhere in a permit; except products This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit. In the event the permittee proposes to use water treatment chemicals, biocides, corrosion inhibitors, or additives not authorized in this permit, or not previously reported to the Department, that ultimately may be released to the CCS or waters of the State, the permittee shall notify the Department in writing a minimum of thirty (30) days prior to instituting the use of such product. The product shall not be used prior to a determination by the Department that a permit revision is not required or prior to Department approval. Such notification shall include:

Rationale: Added for clarity

III. SLUDGE, SOLIDS, AND VEGETATIVE MATTER MANAGEMENT REQUIREMENTS

III.4. Vegetation and materials removed from intake screens and vegetation, sediments and sludge excavated from the CCS or basins must be properly stored on-site until they are disposed in accordance with requirements in Chapter 62-701, F.A.C., and other applicable State and Federal requirements and shall be managed to prevent further nutrient enrichment within the CCS and potential contribution to the adjacent surface waters.

Rationale: The Turkey Point CCS Nutrient Plan dated September 16, 2016 (submitted pursuant to Consent Order OGC File Number 16-0241) identified the CCS sediments and weathering and

dredging of the berms as significant contributor to nutrient mass input to the CCS. Therefore, proper management, storage and disposal of excavated sediments (or cut vegetation) is critical to preventing further nutrient enrichment.

VI. SCHEDULES

Section VI.4 The facility shall submit annually by November of each year, beginning the third year following permit issuance, a nutrient monitoring summary report based on the previous ~~at least 24~~ 12 months of groundwater, surface water, and CCS monitoring data along with all supporting historical data to the Department's Tallahassee Industrial Wastewater Program. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of the report shall be signed and sealed by the professional(s) who prepared them. The report shall include by station and depth where specified.

Rationale: DERM recommends shortening the time periods based on the actions already undertaken by the permittee with respect to nutrient management (pursuant to the CO) and the plethora of historical data available.

VIII. OTHER SPECIFIC CONDITIONS

Section VIII.E. 3. In addition to other regular maintenance activities conduction for the CCS, which for the purposes of this section is considered an impoundment, the perimeter berms and slopes shall be maintained to protect the structural integrity. This may include removal of trees greater than 4 inches in diameter. The resulting vegetative debris shall be managed to prevent further nutrient enrichment within the CCS and potential contribution to the adjacent surface waters.

Rationale: See Section III.4.

Section VIII.F.5. Other issues which may have long term impacts on integrity, such as trees growing on the CCS or banks or vegetation blocking canals or spillways, shall be cleared within thirty days of first observation. In addition, these areas shall be maintained to prevent the growth, accumulation, or spread of any plant species listed as a State of Florida Noxious Weed per Chapter 5B-57.007, F.A.C., State of Florida Prohibited Aquatic Plant per Chapter 5B-64.011, F.A.C.

Rationale: To ensure compliance with applicable FAC.