Sodium/Groundwater Quality Criteria Exemption Request: Florida Department of Environmental Protection Order Granting Petition

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The Florida Department of Environmental Protection ("FDEP") issued a Final Order ("FO") granting Duke Energy of Florida, Inc.'s ("Duke Energy") Petition for a Groundwater Quality Criteria Exemption for sodium. See OGC File No. 20-1650.

The FO addressed Duke Energy's Anclote Power Plant ("Facility") located in Pasco County, Florida.

FDEP had previously issued on May 5th a document titled:

Intent to Grant a Ground-Water Criteria Exemption

A permit is required for various discharges into Florida groundwater. Such permits will address issues such as the extent the discharge would impact the quality of receiving water.

The criteria applicable to the groundwater will depend upon its designated use. FDEP classifies groundwater into five designated use categories which include:

- G-I
- F-I
- G-II
- G-III
- G-IV

Three criteria are applicable to the classification which include:

- Potable versus non-potable water use
- Total of dissolved solids contained in the groundwater
- Confined versus unconfined aquifer

Duke Energy filed with the FDEP a Petition for Renewal of Exemption on September 23, 2020. The Petition requested the establishment of alternative compliance levels for the primary drinking water standard for sodium at the Facility. Such groundwater exemption is stated to be associated with the Facility's discharge to Class G-II groundwater through an onsite percolation pond system at the Facility.

Class G-II is a potable water use.

Duke Energy proposed an alternative compliance level for sodium as 4,000 mg/L for two compliance wells.

FDEP states in the FO that it determined that Duke Energy met the six criteria for issuance for an exemption. As a result, it issued on May 5th the Intent to Grant a Ground-Water Quality Criteria Exemption to the Facility for sodium.

The May 5th document attached to the FO as an appendix indicates that the FDEP is granting the exemption for sodium because it is in the public interest, referencing the Facility is providing electric power. Further, the agency indicates that the Facility is adjacent to marine waters and marsh that are naturally high in sodium. It states that requiring compliance with the G-II ground-water standard for sodium would:

- result in no discernable environmental, social, or economic benefits
- not be necessary for the protection of present and future public potable water supplies
- not interfere with existing uses of the designated uses of the water or contiguous water
- require the Facility to expend significant economic, environmental and social costs with minimal corresponding benefits to meet the standard

The documents reference the approval of a ground-water monitoring program designed to address the location and approximate dimensions of a discharge plume.

A copy of the FO and the appendices can be downloaded here.