



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8960

NOV 14 2013

Mr. Tom Frick
Director
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
Mail Station 3000
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

NOV 20 2013

Dear Mr. Frick:

The purpose of this letter is to notify Florida Department of Environmental Protection of the Environmental Protection Agency's approval of the State-adopted variance from three provisions of Florida water quality standards for the Charlotte Harbor Water Association's discharge to San Marino Canal in Charlotte County, Florida. The variance and supporting documentation were submitted to the EPA for review in a letter dated March 26, 2012, from Thomas M. Beason, General Counsel for the FDEP, to Ms. Gwendolyn Keyes Fleming, EPA Region 4 Regional Administrator. The variance was adopted by FDEP on March 7, 2012 and the letter submitting the variance for the EPA's review included a certification "that the enclosed variance, representing a temporary change to surface water quality standards was duly adopted pursuant to state law." Details of the EPA's review are contained in the enclosure.

The variance was granted by the State under the authorities of Section 403.201(1)(a), Florida Statute. The variance will expire at the expiration of National Pollutant Discharge Elimination System Permit Number FL0035378. The terms of the variance require the discharge from the Charlotte Harbor Reverse Osmosis (RO) facility, Outfall D-001, have a whole effluent acute toxicity 96 hour LC_{50} no less than 48% effluent in any test.

For the purposes of this discharger, the alternate acute toxicity requirement adopted by the State, applies in lieu of the following three regulatory provisions which are specific to acute toxicity.

F.A.C. 62-302.500(1)(a)4 [Surface Waters: Minimum Criteria, General Criteria] requires the following:

All surface waters of the State shall at all places and all times be free from: Domestic, industrial, agricultural, or other man-induced non-thermal components of discharges which, alone or in combination with other substances or in combination with other components of dischargers (whether thermal or non-thermal)...are acutely toxic...

F.A.C. 62-4.241(2)(a) [Mixing Zones, Surface Waters] requires the following:

Facilities granted a chronic toxicity mixing zone in accordance with paragraph 62-4.244(3)(a), F.A.C., shall meet the following whole effluent toxicity limitations.

For acute whole effluent toxicity, the LC50, as defined in subsection 62-302.200(1) F.A.C., shall not be less than 100% effluent

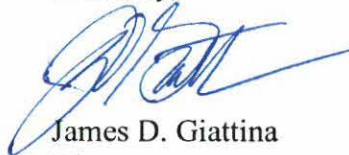
F.A.C. 62-4.244(3)(a) [Mixing Zones, Surface Waters] requires the following:

Waters within mixing zones shall not be degraded below the minimum standards prescribed for all waters at all times in Rule 62-302.500, F.A.C. In determining compliance with the provisions of subsection 62-302.500(1), F.A.C., the average concentration of wastes in the mixing zone shall be measured or computed using generally accepted scientific techniques; provided that, the maximum concentration of wastes in the mixing zone shall not exceed the amount lethal to 50% of the test organisms in 96-hours (96 hour LC50) for a species significant to the indigenous aquatic community, except as provided in paragraph (b), (c), or (d) below...

Based on the EPA's review of the available information, the State has demonstrated that the variance from the regulatory provisions regarding acute toxicity and the applicable acute toxicity variance that applies during the term of the permit complies with the requirements applicable to state adopted variances, including a demonstration that meeting the standard is not feasible, based on one of the factors outlined in the regulations for removing a designated use, in this case, 40 CFR 131.10(g)(6). Please note that the provisions of 40 CFR § 131.20(a) require that each variance to state water quality standards be "...re-examined every three years to determine if any new information has become available. If such new information indicates that the uses specified in Section 101(a)(2) of the [Clean Water] Act are attainable, the State shall revise its standards accordingly."

As indicated in the enclosure, the EPA's decision to approve the variance is subject to the results of consultation under section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service. The EPA will notify Florida of the results of the section 7 consultation upon completion of the action. Should you have any questions, please contact Ms. Lauren Petter of my staff at (404) 562-9272.

Sincerely,



James D. Giattina
Director
Water Protection Division

Enclosure

cc: Mr. Matthew Z. Leopold, Florida Department of Environmental Protection
Mr. Andrew Tintle, Florida Department of Environmental Protection

**United States Environmental Protection Agency Determination
Under § 303(c) of the Clean Water Act
Review of Variance to Florida Water Quality Standards:
Charlotte Harbor Water Association, Inc.**

In a letter dated March 26, 2012, from Thomas M. Beason, General Counsel for the Florida Department of Environmental Protection to Ms. Gwendolyn Keyes Fleming, EPA Region 4 Regional Administrator, FDEP submitted new and revised water quality standards (WQS) for review by the U.S. Environmental Protection Agency pursuant to section 303(c) of the Clean Water Act (CWA). The March 26, 2012, letter from FDEP included a certification "that the enclosed variance, representing a temporary change to surface water quality standards, was duly adopted pursuant to state law." Section 303 of the CWA, 33 U.S.C. § 1313, requires states to establish water quality standards and to submit any revised or new standards to the EPA for approval or disapproval. These new and revised water quality standards were received by the EPA on April 2, 2012.

In addition to the EPA's review pursuant to Section 303 of the CWA, Section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species. With regard to consultation activities for section 7 of the ESA, the EPA Region 4 has concluded that the Agency's action to approve the variance requested below would either have no effect or would not likely adversely affect the threatened and endangered species or their critical habitat. The EPA's decision to approve the variance is subject to the results of consultation under section 7 of the ESA. The EPA will notify Florida of the results of the section 7 consultation upon completion of the action.

EPA's Analysis and Decision

The draft variance and draft permit revision was noticed December 13, 2011, and followed on January 18, 2012, by the notice of intent to issue a variance and permit revision. The variance was granted by FDEP on March 7, 2012. The variance requested by the Charlotte Harbor Water Association, Inc. Reverse Osmosis (RO) Facility allows relief from three acute toxicity requirements, contained in the state of Florida's regulations, which apply to Outfall D-001.

F.A.C. 62-302.500(1)(a)4 [Surface Waters: Minimum Criteria, General Criteria] requires the following:

All surface waters of the State shall at all places and all times be free from: Domestic, industrial, agricultural, or other man-induced non-thermal components of discharges which, alone or in combination with other substances or in combination with other components of dischargers (whether thermal or non-thermal)...are acutely toxic...

F.A.C. 62-4.241(2)(a) [Mixing Zones, Surface Waters] requires the following:

Facilities granted a chronic toxicity mixing zone in accordance with paragraph 62-4.244(3)(a), F.A.C., shall meet the following whole effluent toxicity limitations. For acute whole effluent toxicity, the LC₅₀, as defined in subsection 62-302.200(1) F.A.C., shall not be less than 100% effluent

F.A.C. 62-4.244(3)(a) [Mixing Zones, Surface Waters] requires the following:

Waters within mixing zones shall not be degraded below the minimum standards prescribed for all waters at all times in Rule 62-302.500, F.A.C. In determining compliance with the provisions of subsection 62-302.500(1), F.A.C., the average concentration of wastes in the mixing zone shall be measured or computed using generally accepted scientific techniques; provided that, the maximum concentration of wastes in the mixing zone shall not exceed the amount lethal to 50% of the test organisms in 96-hours (96 hour LC₅₀) for a species significant to the indigenous aquatic community, except as provided in paragraph (b), (c), or (d) below...

The petition indicates that without the variance “the users of water generated by this facility will be forced to obtain their water from other sources...extensive pipelines and pumping facilities will have to be constructed at great cost...consequently denial will have extensive economic and social ramification for the users of water from the facility, but will have little or no effect on the discharge of concentrate to surface waters.”

The Charlotte Harbor RO Facility effluent is discharged into the San Marino Canal and then to the Peace River, located in Charlotte County, Florida. In 2003, the facility received a variance¹ under Florida law for acute toxicity limitations of Rules 62-302.500(1)(a)4 and 62-4.244(3)(a), F.A.C. and was granted a mixing zone for chronic toxicity according to provisions of Rule 62-4.244(3)(a), F.A.C. However, based on more recent monitoring since the last permit issuance, the discharge has not consistently met the whole effluent acute toxicity limitations outlined in Rule 62-4.241(2)(a), which was adopted into State regulation after the issuance of the previous variance.² Therefore, as part of this submittal, the State’s relief from the acute toxicity requirements involves three regulatory provisions, instead of the two provisions previously adopted by the State.

The terms of the variance granted by the State have three provisions: (1) the variance is granted for a period not to exceed five years or the life of the permit; (2) if a renewal of the variance is requested, it should be requested no less than 180 days prior to the expiration of the permit; and (3) for the duration of the variance, the whole effluent acute toxicity 96 hour LC₅₀ shall not be less than 48% effluent in any test. The variance will expire at the expiration of the National Pollutant Discharge Elimination System Permit Number FL0035378-005 on May 20, 2014.

Alternatives considered by the facility included connecting to the injection well of a neighboring utility, putting the concentrate into the wastewater collection system of a neighboring utility, diluting the concentrate with freshwater from a canal by the water plant, drilling shallow wells, diluting the concentrate with existing well field water, zero liquid discharge, drilling a deep injection well and purchasing water in bulk from another utility. Financial worksheets for the last three alternatives (zero liquid discharge, drilling a deep injection well, and purchasing bulk water from another utility) were

¹ There is no record that shows that EPA Region 4 water quality standards staff was aware of the previous variance. The State’s March 26, 2012 submittal reflects a coordinated effort by EPA and the state to ensure that all modifications to Florida water quality standards are properly submitted for EPA review.

² FDEP submitted new and revised standards to the EPA on April 25, 2008, which included the recodification of the whole effluent toxicity limits into one subsection, 62-4.241. In EPA’s November 12, 2008, action letter to FDEP, EPA stated that the amendments to Rule 62-4.241 “was simply recodification of previously approved water quality standards” and “EPA does not consider the recodifications to be new or revised water quality standards subject to review under Section 303(c) of the CWA.”

provided. All other alternatives were rejected, not allowable, or potentially beyond the limits of the facility's consumptive use permit and therefore not investigated further.³

These costs were analyzed by the facility using the EPA's *Economic Guidance for Water Quality Standards*, EPA 823-B-95-002, March 1995. Based on our review of the information provided by Charlotte Harbor and the State, the EPA Region 4 staff concluded that the variance and rationale for it are consistent with the EPA's 1995 guidance and the applicable regulations for use removal and variances to water quality standards at 40 CFR § 131.10(g)(6), which states:

States may remove a designated use...if the State can demonstrate that attaining the designated use is not feasible because...controls more stringent than those required by Sections 301(b) and 306 of the Act would result in widespread and economic social impact.

The EPA's review of the financial information provided is summarized in a memorandum provided on August 10, 2012 from Sheryl Parsons to Annie Godfrey. The memo noted that the County has a high unemployment rate, an enormous number of foreclosures and a median household income (MHI) significantly less than the State of Florida MHI. The memo concluded "[t]he evidence shows there would be a very substantial and widespread impact to the County if the variance is not granted."

Endangered Species Act

With regard to consultation activities for section 7 of the ESA, the EPA Region 4 has concluded that the Agency's action to approve the variance will have no effect on the American crocodile, Crested Caracara, and Florida scrub-jay, and is not likely to adversely affect the West Indian manatee.


Conclusions

Based on the EPA's review, the need for the variance from acute toxicity requirements is demonstrated by the lack of more stringent controls available to improve the level of water quality in the receiving waterbody due to the wastewater treatment and economic constraints summarized above. Therefore, the variance complies with the requirements applicable to state adopted variances, including a demonstration that meeting the standard is not feasible, based on one of the factors outlined in the regulations for removing a designated use, in this case, 40 CFR 131.10(g)(6). For the reasons outlined

³ The following summarizes the conclusions from the facility regarding the alternatives which were not investigated further. Putting the concentrate into the wastewater collection system of a neighboring utility was not possible due to the inability to treat the brine that exists in the concentrate. Also, due to the nature of the concentrate, additional measures would be required to retrofit the injection wells of the neighboring facility. Due to this cost and the resulting decrease in disposal capacity the neighboring facility concluded they would be unable to dispose of the concentrate for Charlotte Harbor. With regard to diluting the concentrate with freshwater from a nearby canal or drilling shallow wells, the facility determined during informal discussions with the Southwest Florida Water Management District that this would not be allowed. Lastly, the alternative which considered diluting the concentrate with well field water was determined to require a significant amount of water that would likely exceed the facility's consumptive use permit. (Source of Information: November 10, 2010 letter from Mr. Paul Brayton, Charlotte Harbor Water Association)

above, it is our conclusion that the requirements of the CWA and 40 CFR Part 131 have been met. Therefore, this variance is approved by the EPA pursuant to section 303(c) of the Act.

11/14/13
Date


James D. Giattina
Director
Water Protection Division