

**BEFORE THE ARKANSAS POLLUTION CONTROL  
AND ECOLOGY COMMISSION**

**IN RE: REQUEST BY CITY WATER AND LIGHT )  
PLANT OF THE CITY OF JONESBORO )  
TO INITIATE RULEMAKING TO )  
AMEND REGULATION NO. 2 )**

**DOCKET NO. 10-004-235**

2010 APR -9 PM 2:35

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& ECOLOGY COMMISSION  
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**PETITION TO INITIATE THIRD-PARTY  
RULEMAKING TO AMEND REGULATION NO. 2**

Petitioner, City Water and Light Plant of the City of Jonesboro ("CWL"), for its Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 ("Petition") states:

1. The Petition is submitted pursuant to Arkansas Pollution Control and Ecology Commission ("APCEC" or "the Commission") Regulation No. 2, § 2.306, APCEC Regulation No. 8, § 8.809, and the Continuing Planning Process. As set forth more fully below in paragraph 8, CWL is requesting: (a) modification of the chloride, sulfate and total dissolved solids ("TDS") water quality standards for an Unnamed Tributary to Big Creek; (b) modification of the chloride and sulfate water quality standards for Big Creek from the mouth of the Unnamed Tributary to Whistle Ditch; and (c) modification of the chloride, sulfate and TDS water quality standards for Bayou DeView from Whistle Ditch to the mouth of Bayou DeView to match Delta Ecoregion standards, all in Craighead County.

2. CWL is a consolidated municipal improvement district, organized under general and special acts of the Arkansas Legislature, court decrees, and ordinances of the City of Jonesboro. It was organized in 1906 for the purpose of purchasing and controlling the then existing, privately owned water and light plant, and for the construction of sanitary sewers in the city of Jonesboro.

3. CWL has operated its West Wastewater Treatment Plant (West Plant) for over 30 years. The West Plant discharges wastewater through Outfall 001 into an Unnamed Tributary to Big Creek under the authority of NPDES Permit No. AR0037907 issued by the Arkansas Department of Environmental Quality (“ADEQ”) effective February 1, 2005. Monitoring data show that CWL is in compliance with its current permit. CWL’s application for the renewal of its NPDES Permit is currently pending before ADEQ.

4. The West Plant has a design flow of 3 million gallons per day with the average effluent flow from 1998 through 2007 at 1.74 million gallons per day. The discharge enters the Unnamed Tributary to Big Creek (“UT”) which flows approximately .6 of a mile to Big Creek (“BC”), which then flows approximately 16 miles to Bayou DeView (“BDV”). Because it is unclear from available maps where BC ends and BDV begins, the Use Attainability Analysis (“UAA”) supporting this Petition (and attached as Exhibit F) defines the beginning of BDV as being formed by the confluence of BC and Lost Creek.

5. Because a segment of BDV below the mouth of BC and Lost Creek is listed on the 2008 303(d) list as impaired, it is anticipated that CWL’s renewal permit will, for the first time, contain effluent limitations for minerals based upon the applicable Arkansas water quality standards for UT, BC and BDV which are set forth in APCEC Regulation No. 2. The applicable water quality standards are:

For UT and BC (Delta Ecoregion numbers):

Chloride – 48 mg/l

Sulfate – 37.3 mg/l

TDS – 411.3 mg/l

For BDV:

Chloride – 20 mg/l

Sulfate – 30 mg/l

TDS – 270 mg/l

6. The designated uses for UT, BC and BDV set forth in APCEC Regulation No. 2

are:

Channel –altered Delta Ecoregion stream  
Primary contact recreation (except UT)  
Secondary contact recreation  
Domestic, industrial, and agricultural water supply  
Perennial Delta fishery

CWL is not seeking a change to any designated use for UT, BC or BDV.

7. In anticipation of its permit renewal, CWL monitored its discharge for chloride, sulfate and TDS from April 2008 through May 2009. The monitoring data indicate that those minerals frequently exceeded the ecoregion mineral standards. CWL's approach to address the potential for dissolved mineral limitations and downstream exceedences of the water quality standards was to evaluate alternatives through a UAA including the development of site-specific water quality standards that are protective of the existing and attainable uses in the UT, BC and BDV. The UAA included field studies to evaluate the physical, chemical and biological characteristics of the affected stream segments, toxicity testing, mass balance modeling to evaluate downstream dissolved minerals concentrations under various flow and discharge scenarios, engineering analysis of alternatives for discharge and treatment, and an analysis of designated uses for UT, BC and BDV.

8. Through this Petition, and based upon the UAA, CWL is requesting the following amendments to APCEC Regulation No. 2:

- a. modify the dissolved minerals water quality standards for the entire length of UT (Unnamed Tributary to Big Creek) as follows:

chloride from 48 mg/l to 71 mg/l  
sulfate from 37.3 mg/l to 60 mg/l  
TDS from 411.3 mg/l to 453 mg/l

- b. modify the dissolved minerals water quality standards for BC (Big Creek) from the mouth of UT to Whistle Ditch (stream segment 08020302-009) as follows:

chloride from 48 mg/l to 58 mg/l  
sulfate from 37.3 mg/l to 49 mg/l

- c. modify the dissolved minerals water quality standards for BDV (Bayou DeView) from Whistle Ditch to AR Highway 14 (the upper portion of stream segment 08020302-007) to match Delta Ecoregion standards as follows:

chloride from 20 mg/l to 48 mg/l  
sulfate from 30 mg/l to 38 mg/l  
TDS from 270 mg/l to 411.3 mg/l

- d. modify the dissolved minerals water quality standards for BDV from AR Highway 14 to its mouth (lower portion of stream segment 08020302-007 and stream segments 08020302-001 through 08020302-006) to match Delta Ecoregion standards as follows:

chloride from 20 mg/l to 48 mg/l  
sulfate from 30 mg/l to 37.3 mg/l  
TDS from 270 mg/l to 411.3 mg/l

A redline version of APCEC Regulation No. 2 showing the proposed change is attached hereto as Exhibit A and incorporated herein by reference.

9. A copy of the Legislative Questionnaire is attached hereto as Exhibit B and incorporated herein by reference.

10. A copy of the Financial Impact Statement is attached hereto as Exhibit C and incorporated herein by reference.

11. On March 11, 2010, a copy of the redlined version of APCEC Regulation No. 2 showing the proposed change and the Economic Impact Statement of Proposed Rules or Regulations/EO 05-04: Regulatory Flexibility form setting forth the absence of any effect or impact on any small business was submitted to the Arkansas Economic Development Commission (AEDC) in compliance with Act 143 of 2007. A copy of the submission to AEDC

is attached hereto as Exhibit D. More than ten (10) days have elapsed since submission of the information to AEDC. The letter of review regarding the applicability of Act 143 of 2007 from AEDC will be submitted when and if it is received.

12. A copy of the Economic Impact/Environmental Benefit Analysis required by APCEC Regulation No. 8, § 8.812 is attached hereto as Exhibit E and incorporated herein by reference.

13. A copy of Use Attainability Analysis supporting the requested modifications is attached hereto as Exhibit F and incorporated herein by reference.

15. A copy of the proposed Minute Order to initiate rulemaking is attached as Exhibit G and incorporated herein by reference.

16. This Petition is supported by the following:

- CWL is not seeking a change from historical water quality conditions in UT, BC or BDV; rather CWL seeks standards which allow CWL to continue to be compliant with its NPDES Permit while making certain that its effluent does not limit the attainment of the aquatic life designated uses in UT, BC and BDV.
- UAA data established that all sampling locations influenced by CWL's discharge showed the presence of ecoregion key and indicator species and species composition consistent with the attainment of a Channel-altered Delta Ecoregion fishery designated use. The requested changes will have no adverse effect on the aquatic life communities;
- Toxicity testing on *Ceriodaphnia dubia* and *Pimphales promelas* using CWL effluent showed no significant lethal or sub-lethal toxicity in either test organism;
- There is no current economically feasible treatment technology for the removal of the minerals. Reverse osmosis treatment technology does exist; however, this

technology is not cost effective and generates a concentrated brine which is environmentally difficult to dispose of. The technology is not required to meet the designated uses and would produce no significant environmental protection.

- The basis for site-specific standards is provided in 40 CFR 131.10(g). Two factors support CWL's request for the modifications requested in paragraph 8, above:
  - 40 CFR 131.10(g)(5) Physical conditions related to the natural features of the water body, such as the lack of proper substrate, cover, flow, depth, pools, riffles and the like, unrelated to water quality, preclude attainment of aquatic life protection uses;
  - 40 CFR 131.10(g)(6) Controls more stringent than those required by section 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.
- 40 CFR 131.11(b)(1)(ii) provides states with the opportunity to adopt water quality standards that are "modified to reflect site-specific conditions."

WHEREFORE, City Water and Light Plant of the City of Jonesboro requests that the Commission initiate a rulemaking to amend APCEC Regulation No. 2, and amend Regulation No. 2 in the manner requested in paragraph 8, above.

Respectfully submitted,

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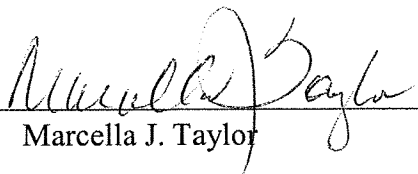
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Counsel for City Water and Light Plant of the  
City of Jonesboro

**CERTIFICATE OF SERVICE**

I hereby certify that on this 9<sup>th</sup> day of April, 2010, I served a copy of the foregoing Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 on the following by United States Postal Service, postage prepaid and by electronic service:

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Marcella J. Taylor