## BEFORE THE ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION

IN RE:	REQUEST BY CITY OF FAYETTEVILLE	)	
	PAUL R. NOLAND WASTEWATER	)	
	TREATMENT PLANT	)	
	TO INITIATE RULEMAKING TO	)	DOCKET NO.
	AMEND REGULATION NO. 2	Ĺ	

## PETITION TO INITIATE THIRD-PARTY RULEMAKING TO AMEND REGULATION NO. 2

Petitioner, City of Fayetteville Paul R. Noland Wastewater Treatment Plant, for its Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 ("Petition") states:

- 1. This Petition is submitted pursuant to Arkansas Pollution Control and Ecology Commission ("APCEC" or "the Commission") Regulation No. 2, §§ 2.308 and 2.303, APCEC Regulation No. 8, § 8.809, the Arkansas Department of Environmental Quality ("ADEQ" or "the Department") Continuing Planning Process, and Section 2 of 2013 Ark. Act 954. As set forth more fully below in paragraph 12, the City of Fayetteville ("Fayetteville") is requesting a site-specific modification of the minerals water quality criteria for a segment of the White River in Washington County. Specifically Fayetteville seeks modification of the chloride, sulfate and total dissolved solids ("TDS") criteria for the White River from the outfall of Fayetteville's Paul R. Noland Wastewater Treatment Plant ("Noland WWTP") at River Mile 17.25 to immediately downstream of the confluence of Richland Creek at River Mile 11.6.
- 2. The City of Fayetteville owns and operates the Noland WWTP which discharges treated municipal wastewater under the provisions of NPDES Permit No. AR0020010 issued by ADEQ. The Noland WWTP treats the municipal wastewater from the cities of Fayetteville,

Elkins, Greenland, sometimes Farmington and Johnson,<sup>1</sup> as well as industrial and commercial enterprises. The Noland WWTP discharges through a single outfall (Outfall 001) into the White River upstream of Beaver Lake, within ADEQ Reach 23 of Planning Segment 4K.

3. The White River, from its headwaters to the Missouri state line, including Beaver Lake is located within the Ozark Highlands Ecoregion. The applicable water quality criteria for the White River set forth in APCEC Regulation No. 2 are:

Chorides – 20 mg/L Sulfates – 20 mg/L TDS – 160 mg/L

- 4. The designated uses for the White River set forth in Regulation No. 2 are: fisheries, primary and secondary contact recreation, and domestic, agricultural, and industrial water supplies. Fayetteville is not seeking the removal of any designated use for the White River.
- 5. The segment of the White River into which the Noland WWTP discharges is listed on the Arkansas draft 2010 303(d) list of impaired waterbodies based on exceedances of the chloride, sulfate and TDS water quality criteria stated in paragraph 3 above.
- 6. Based on the inclusion of the segment in the draft 2010 303(d) List, Fayetteville undertook a Use Attainability Analysis ("UAA") to: (a) evaluate establishing new or revised site-specific criteria for chlorides, sulfates and TDS; and (b) evaluate existing and attainable designated uses in the White River and the downstream affected waters which could be influenced by the Noland WWTP effluent.

<sup>&</sup>lt;sup>1</sup> The wastewater flow from Farmington and Johnson is most often treated in Fayetteville's West Side WWTP; however it is also sometimes treated in the Noland WWTP.

- 7. While Fayetteville's NPDES Permit renewal application was pending, ADEQ approved the White River UAA Study Plan submitted by Fayetteville.<sup>2</sup> See, Appendix A to Exhibit F attached hereto.
- 8. ADEQ issued the renewal permit effective March 1, 2013. The permit contains interim discharge limits for chlorides, sulfates and TDS of 60/100/440 mg/L respectively. The permit also contains final discharge limits for chlorides, sulfates and TDS of 20/20/160 mg/L respectively (e.g., the currently applicable water quality criteria) which take effect, if at all, under the provisions set forth in Condition 10, Part II of the Permit. Condition 10 provides that unless the permit is modified upon adoption of new site-specific chloride, sulfate and TDS water quality criteria, compliance with the final limits shall occur:
  - (a) 2 years after the Commission either denies the initiation of Fayetteville's Petition to Initiate Third-Party Rulemaking or disapproves the requested site specific modification;
  - (b) 2 years after EPA issues a record of decision denying the site-specific modification;
  - (c) 2 years after an ADEQ formal written determination that Fayetteville is not diligently pursuing the site-specific modification; or
  - (d) 1 month prior to the expiration of the permit.
- 9. The UAA conducted to support this rulemaking by Fayetteville included field studies to evaluate the physical, chemical and biological characteristics of the affected stream segments, toxicity testing, engineering analysis of alternatives for discharge and treatment, and an analysis of designated uses for the White River.
- 10. Following submission of the UAA to ADEQ, Fayetteville received a letter from ADEQ dated June 10, 2013, authorizing Fayetteville to move forward with the third-party

<sup>&</sup>lt;sup>2</sup> The UAA Study Plan was approved by ADEQ on June 22, 2011.

rulemaking and requesting the City to review Act 954 of 2013 and address any modifications necessary in the development of site specific criteria.

- 11. On July 24, 2013, the City of Fayetteville complied with ADEQ's request and submitted to ADEQ a Technical Memorandum analyzing the data under Act 954.
- 12. Through this Petition, and based upon the UAA Fayetteville is requesting the following amendments to APCEC Regulation No. 2:

modify the dissolved minerals water quality standards for the White River from the outfall of the Noland WWTP at River Mile 17.25 to immediately downstream of the confluence of Richland Creek at River Mile 11.6 as follows:

chloride from 20 mg/L to 60 mg/L sulfate from 20 mg/L to 100 mg/L TDS from 160 mg/L to 440 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.

- 13. A copy of the Legislative Questionnaire is attached hereto as Exhibit B and incorporated herein by reference.
- 14. A copy of the Financial Impact Statement is attached hereto as Exhibit C and incorporated herein by reference.
- 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.

- 16. 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.
- 17. A copy of UAA supporting the requested modifications is attached hereto as Exhibit F and incorporated herein by reference.
- 18. A copy of the June 10, 2013 letter from ADEQ is attached hereto as Exhibit G and incorporated herein by reference.
- 19. A copy of the City of Fayetteville's Technical Memorandum addressing Act 954 of 2013 is attached hereto as Exhibit H and incorporated herein by reference.
- 20. A copy of the proposed Minute Order to initiate rulemaking is attached as Exhibit I and incorporated herein by reference.
  - 21. This Petition is supported by the following:
    - Fayetteville is not seeking a change from historical water quality conditions in the White River; rather Fayetteville seeks a site-specific modification which allows the Noland WWTP to be compliant with its NPDES Permit while making certain that its effluent does not limit the attainment of any of the designated uses of the stream segments.

## • UAA data established that:

- o setting the chloride, sulfate and TDS at the site-specific levels requested in paragraph 12, above in this stream segment will not cause acute or chronic toxicity;
- o setting the chloride, sulfate and TDS at the site-specific levels requested in paragraph 12, above in this stream segment will not impair existing or attainable designated uses, including any aquatic life; and
- o setting the chloride, sulfate and TDS at the site-specific levels requested in paragraph 10, above in this stream segment will not impair Beaver Lake.

- All sampling locations influenced by Noland WWTP's discharge showed the presence of ecoregion key and indicator species and species composition consistent with the attainment of a Ozark Highlands fishery designated use. The requested changes will have no adverse effect on the aquatic life communities;
- Toxicity testing on *Ceridaphnia dubia and Pimphales promelas* using Noland WWTP effluent and spiked samples of the effluent showed no significant lethal or sub-lethal toxicity in either test organism at concentrations exceeding the levels requested herein;
- There are no current economically feasible treatment technologies 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 even if implemented would produce no significantly increased environmental protection.
- The basis for site-specific standards is provided in 40 CFR 131.10(g). Fayetteville's request for the modifications requested in paragraph 10, above is supported by 40 CFR 131.10(g)(6) which provides that the state may establish less stringent criteria if controls more stringent that those required by section 301(b) and 306 of the Clean Water 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, the City of Fayetteville requests that the Commission initiate a rulemaking to amend APCEC Regulation No. 2, and amend Regulation No. 2 in the manner requested in paragraph 12, above.

Respectfully submitted,

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Counsel for the City of Fayetteville

## **CERTIFICATE OF SERVICE**

I hereby certify that on this \( \subset \text{day} \) of October, 2013, 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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