

BEFORE THE ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION

IN THE MATTER OF AMENDMENTS TO)
REGULATION NO. 2, REGULATION)
ESTABLISHING WATER QUALITY) DOCKET NO. 13-010-R
STANDARDS FOR SURFACE WATERS)
OF THE STATE OF ARKANSAS)

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY'S
RESPONSIVE SUMMARY

Pursuant to Minute Order 13-32 and 17-04, the Arkansas Department of Environmental Quality (ADEQ or "Department") submits the following Responsive Summary regarding proposed changes to Regulation No. 2, Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas.

On October 11, 2013, the Arkansas Pollution Control and Ecology Commission (APC&EC or "Commission") granted the Petition filed by the City of Fayetteville Paul R. Noland Wastewater Treatment Plant ("Fayetteville") to Initiate Rulemaking to amend Regulation No. 2 by Minute Order 13-32. Pursuant to APC&EC Reg.8.809, Fayetteville had filed a third-party petition seeking to modify Arkansas Water Quality Standards in the White River from river mile 17.25 to river mile 11.6 as follows: TDS from 430 mg/L to 440 mg/L, Sulfate from 60 mg/L to 100 mg/L, and Chlorides from 20 mg/L to 60 mg/L.

The Commission held a public hearing in Fayetteville on Thursday, February 13, 2014. The Commission received three oral comments during the public hearing. The final day to submit written comments was February 27, 2014. The Commission received three written comments during the public comment period. Oral comments from the public hearing are presented here in part; however, a digital recording of the public hearing in its entirety is available upon request.

In response to Minute Order 13-32, the Department submitted a public comment asking Fayetteville to review the past 23 years of available instream water quality data to ensure that site-specific criteria were reflective of ambient conditions. The Department and Fayetteville agreed to a split-segment approach that most appropriately represented instream, ambient conditions.

Fayetteville amended its petition to incorporate the split-segment proposal. On January 27, 2017, the Commission granted Fayetteville's amended petition by Minute Order 17-04. Subsequently, the Commission ordered a public hearing.

On March 27, 2017, the Commission held a public meeting. One public comment was received at the public hearing. The comment period closed on April 10, 2017, and the Commission received no additional comments.

The Department's responses to the public comments received for each of Fayetteville's petitions are below.

Comments related to Minute Order 13-32:

Oral Comments (transcribed in part) received at public hearing held on February 13, 2014.

Comment 1: Ray Smith stated:

Thank you Commissioner Henry for this opportunity, I am here on behalf of Trout Unlimited, a conservation organization and we take water quality very seriously. Particularly, for our cold-water trout populations here in Arkansas. My concern, I recognize that Fayetteville has been trying to adhere to the standard and they reached the point where they must increase some of the discharge, levels on the discharge. My concern is that if Fayetteville is permitted to a new standards and discharge more of the chlorine, sulfate, and total solids. It appears that Huntsville is doing likewise and what my concern is that if all the municipalities that are discharging into the White River increase their standards what is the effect overall. Now, I recognize that Fayetteville is just one municipality, but when we put them all together and see what that discharge is into the White River. I think we need more study on that and I see no reason why it would not delay anything to see what all the municipalities are going to have to do before we decide whether the standard Fayetteville wants should be approved or whether we have something in between.

One of the reasons I have such a concern, in Pennsylvania they have no standards on chlorine, the sulfates, and total solids. And as a result, with the fracking processes that are going on in the Marcellus area up there, the pollutants have just been poured into the streams up there. And, it has had quite an effect, not only on the fisheries, but also chlorine, has quite an impact on aquatic insects which is one of food supplies of fish. So, that's the concern we have.

Response: The Department acknowledges the commenters concerns regarding third-party rulemakings on the White River and protection of aquatic life from elevated mineral concentrations. The United States Geological Survey (USGS) performed a modeling exercise that would demonstrate potential affects to Beaver Lake with elevated mineral concentrations (USGS 2013). Modeling data indicate that impacts to mineral concentrations, particularly chlorides, sulfates, and total dissolved solids, would be minimal near the Beaver Lake dam. Aquatic life, including the Salmonid population, present in the White River below Beaver Lake will be protected.

Comment 2: Aubrey Shepard stated:

My interests in reading newspaper story about this project. It hadn't been announced on the city website or anything and we don't have government channel here, so I will be putting this on public access, which also a city operated thing. The question about the mention of food waste being a critical part of the reason

that we are not meeting standards, can someone comment on that? My understanding is that, just that one sentence in the paper made me wonder if it has to do with the fact we are allowing people to use those grinders in their sink. What do they call them? Commissioner Ann Henry, "Garbage disposals." Yes, I don't own one. I spoke, since I read that article I spoken several people who happen to be like-minded. Who believe that if people would simply go through the trouble of mulch, compost using food waste, put it out in the woods for the critters. Things like that. That the intensity of these salts getting to the lake or even to the stream would be much reduced and Fayetteville has an attempt to protect the stream from direct pouring of and its helping, I think, in both watersheds from here. We are constantly having people wanting variances from that ordinance and removal of vegetation and red-dirting the land. Those are the things cities have to deal with to try and protect the watershed from anything. Even if it is simply silt or sediment, but anything that will impair water quality for living things and then for human beings who will be drinking it as well after the treatment process. So, I am hoping that there won't have to be a change in Fayetteville's status. I think it is important considering how many millions of people may be affected by Beaver Lake water. So, I think giving out recommendations to cities about more ways to prevent these problems from occurring would be very helpful and that there is not a rapid rush to change the standards. Let's try and meet the standards.

Response: The Department acknowledges this comment.

Comment 3: Larry Lloyd stated:

Thank you Commissioner Henry. I am Larry Lloyd, Chief Operating Officer for Beaver Water District. We are the second largest water utility in the state and provide drinking water to over 300, 000 people in Northwest Arkansas with Beaver Lake being our source of supply, of course and it receives water from various White River tributaries. We do anticipate making some written comments later by the deadline. My purpose tonight is to express gratitude to the City of Fayetteville for this process. They have been very open and involved us, kept us informed us all the way. I think it represents a very good example of different stakeholders working together throughout this process and we do appreciate their efforts in working with us, cooperating, keeping us well informed.

Response: The Department acknowledges this comment.

Written Comments (in part) received on or before February 27, 2014.

Comment 4: Submitted by the Arkansas Department of Health (ADH)

ADH is opposed to the removal of the domestic water supply designated use from any stream within the watershed of Beaver Lake, a source of drinking water for 4 regional public water systems which supply drinking water to much of Northwest

Arkansas. These systems and their population served are listed below (Table excluded).

The Paul R. Noland Wastewater Treatment Plant is located and discharges treated effluent into an impaired stream segment of the White River. Beaver Water District, serving a total population of 261, 468 Arkansans, uses raw water in an impaired segment of Upper Beaver Lake.

Waterbodies impaired by minerals or turbidity can significantly increase the cost of treatment required to meet Safe Drinking Water Act standards. They can also increase the risk of exposure to regulated pathogenic contaminants. For example, high sediment in a stream increases the cost of the water utility to meet the drinking water standard for turbidity, and sediment is an indicator of the increased presence of microbiological contaminants in the source water, including *E. coli*, *Giardia lamblia* and *Cryptosporidium*.

ADH request that any effluent from the WWTP should include concentration limits on TDS, chlorides, and sulfates that meet the Secondary Maximum Contaminant Levels. The national secondary MCLs for TDS, chlorides, and sulfates in drinking water are 500, 250, and 250 mg/L, respectively.

Response: Proposed site-specific criteria for segment 023 for the White River are below Secondary Maximum Containment levels of 250 mg/L sulfates, 250 mg/L chlorides, and 500 mg/L total dissolved solids. The City of Fayetteville is not proposing to remove the Domestic Water Supply designated use.

Comment 5: Robert Cross stated:

I am making these comments as a resident of Fayetteville and as a Research Professor Emeritus of the Ralph E. Martin Department of Chemical Engineering at the University of Arkansas. I have had experience in the design and operation of water treatment and waste treatment plants.

I understand the challenges faced by the Noland WWTP in the treatment of the ever changing wastes received as well as the difficulties faced by ADEQ in regulating discharges in line with environmentally sound guidelines and practical limitations of treatment technology. However, our rivers and streams are a precious resource and once impaired are very difficult to restore to acceptable standards.

That said, while I can understand that Fayetteville needs relief from the current site specific specifications, I also believe that new specifications should only be set as high as necessary to accommodate the existing situation. The mass balance model used to calculate the proposed water quality criteria, however, utilizes a series of inputs that are combined together in a way that will never occur and result in considerably higher than necessary levels. This is evident by a review of the actual in-stream water quality monitoring data that shows minerals concentrations generally well below the level of the proposed water quality

criteria. When these higher than necessary concentrations are combined with the new assessment methodology that allows the water quality criteria to be exceeded twenty-five percent of the time, I believe that the proposed numbers are much higher than are necessary and reasonable.

Response: The Department encourages site-specific criteria that are protective of aquatic life and are derived from observed instream data. (See ADEQ Response to Comment 6)

Comment 6: Submitted by the Arkansas Department of Environmental Quality

The Department is commenting on the proposed minerals criteria for segment 023 of the White River, in particular the disparity between long-term measured instream minerals concentrations and the proposed concentrations.

The Department has determined the study indicated the aquatic life is not impacted by minerals, and the aquatic life designated use is currently being maintained. The City of Fayetteville proposes 60 mg/L chlorides, 100 mg/L sulfates, 440 mg/L total dissolved solids for segment 023 of the White River. The criteria need to be re-evaluated to insure they reflect instream concentrations based on either the submitted data or the minerals concentrations measured over the past 23 years of monitoring data. This historical monitoring data includes measurements taken from monthly samples collected at the Hwy 45 Bridge located approximately 4 miles downstream from the City of Fayetteville discharge.

Response: The Department acknowledges that the issue raised in this comment was address by Fayetteville's amended petition that incorporated the split-segment proposal. On January 27, 2017, the Commission granted Fayetteville's amended petition by Minute Order 17-04.

Comments related to Minute Order 17-04:

Oral Comments (transcribed in part) received at public hearing held on March 27, 2017.

Comment 1: Submitted by Emory Brown, Vice President Project Management for Superior Industries

My name is Emory Brown, Vice President Project Management for Superior Industries. Superior Industries is a manufacturer of aluminum wheels for the automotive industry. I am here tonight representing our Fayetteville, AR manufacturing location. Superior's local plant environmental manager, David Miller, has been in contact about the minerals issues since the beginning. He continues to be updated and informed by City official and third party officials about his matter.

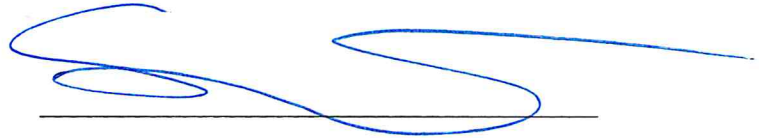
Superior Industry consumes considerable amount of water in the fabrication of aluminum wheel. Our Fayetteville location contuse to minimize the amount of water consumed per wheel produced thereby minimizing the amount of minerals discharged in the local POTW through BMPs. These ISO 14001 BMPs contain

documented goals and objectives requiring reporting and annual updating. The BMPs showed results of approximately 30% in total water reduction since 2017.

Superior Industries voices its support of the third party proposal by the City of Fayetteville's proposal to change Regulation 2 (Arkansas Water Quality Standards) before you. Our industry has been closely following these developments, and the process the City of Fayetteville has taken with ADEQ and Third Party rulemaking process. This proposed change to Regulation 2 remains well-grounded and supports the best interest of the State of Arkansas citizens.

Response: The Department acknowledges this comment.

Submitted by:

A handwritten signature in blue ink, consisting of a large, stylized 'S' followed by a horizontal line and a smaller 'S' shape.

Stacie R. Wassell, Attorney
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