

May 8, 2013

Doug Szenher
Public Outreach and Assistance Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Subject: Comments to Regulation 2, Arkansas Water Quality Standards

Dear Mr. Szenher:

This communication represents comments from the City of Fayetteville regarding the proposed revision to APCEC Regulation No. 2. Additionally, the City of Fayetteville submits the comments in the attached file in concert with the cities of Harrison, Jonesboro, Rogers, Springdale, and Yellville.

The City of Fayetteville recognizes and appreciates the significant level of effort put forth by the Department to update this regulation, as well as the extra effort expended in going well above minimum requirements to solicit public input for the update. We commend the Department in these excellent efforts.


The attached comments deal directly with proposed changes relating specifically to section 2.311 (B). While we agree fully with the attached comments, the City of Fayetteville would like to see those comments expanded to address site-specific criteria that were apparently established for a number of stream segments within the State at the same time as the ecoregion standards, based on the same original study. This appears to be the case with the White River in and near Fayetteville.

The City of Fayetteville also has concerns with the Beaver Lake standards established in section 2.509. We do not specifically object to the proposed criteria of Chlorophyll a and Secchi Transparency. We are concerned, however, with the potential for unintended consequences from this type of criteria. It appears these criteria are measured at only one location in the Lake. The proposed regulation does not specify any guidelines for when the measurements are taken, nor does the proposed regulation specify what actions will be taken if the criteria are not achieved. There are many factors that impact Chlorophyll a and Secchi transparency results, including sediment, sunlight, stream bank vegetation and tree shading, riparian zone protections, rainfall events and the associated runoff, and many others. We are concerned that the most probable regulatory response would be targeted to the few municipal separate storm sewer system (MS4s) and NPDES dischargers upstream from the sample site, although the majority of the factors that impact Chlorophyll a and Secchi transparency are mostly unrelated to the MS4s and NPDES dischargers.

Please do not hesitate to contact me at 479-575-8330 or djurgens@ci.fayetteville.ar.us, if you have any questions.

Sincerely,

City of Fayetteville



David Jurgens, P. E.
Utilities Director

**Comments of the Cities of
Fayetteville, Harrison, Jonesboro, Rogers, Springdale & Yellville
on the Proposed Revisions to APCEC Regulation No. 2**

The cities of Fayetteville, Harrison, Jonesboro, Rogers, Springdale, and Yellville, Arkansas (the “Municipalities”) respectfully submit these written comments in response to the current rulemaking proceeding to revise APCEC Regulation No. 2.

1. Clarify that Ecoregion Values for Minerals in Reg. 2.511(B) Are Not Water Quality Criteria Within the Meaning of the Clean Water Act.

The federal Clean Water Act requires every state to adopt water quality standards. Each state water quality standard consists of two elements: (i) a designated or existing use (such as fishery, primary contact recreation, drinking water supply, etc.); and (ii) a criterion designed to protect the use. The criterion selected to protect a use may be numeric (e.g., no more than “X” mg/l of a given constituent) or it may be narrative (e.g., the constituent should not be present in a concentration that would cause nuisance conditions). Whenever a state adopts or amends its water quality standards, those standards are subject to review and approval by EPA.

APCEC Regulation No. 2 is the regulation that sets forth the water quality standards for the State of Arkansas. Regulation No. 2 also contains other regulatory provisions that are not water quality standards, such as procedures, information, etc.

One section of Regulation No. 2, Reg. 2.511, specifically addresses minerals, which are normally measured as concentrations of chlorides, sulfates, and total dissolved solids. Reg. 2.511 is divided into three distinct subsections. Two of the subsections, Reg. 2.511(A) and Reg. 2.511(C), list numeric levels for minerals that have been adopted by the Commission and approved by EPA as water quality criteria. The other subsection, Reg. 2.511(B), lists numeric minerals values that were never intended to be water quality criteria within the meaning of the Clean Water Act. Instead the values listed in Reg. 2.511(B) are historical measurements collected decades ago from the least disturbed streams in each Ecoregion of the state.

Because the minerals values in Reg. 2.511(B) represent the best water quality that could be expected in an Ecoregion if the stream in question had no impact from human development, the Ecoregion minerals values are understandably quite low. Nevertheless, the Ecoregion values serve as useful benchmarks or sentinel values in determining whether minerals concentrations in a given stream have increased above undisturbed natural background levels and, if so, by what amount. Needless to say, such sentinel values would not be appropriate or realistic candidates for adoption or enforcement as water quality criteria.

The language of Regulation No. 2 attempts to make it clear that the Ecoregion minerals values in Reg. 2.511(B) are not water quality criteria within the meaning of the Clean Water Act. Thus, for example, the numeric minerals water quality levels listed in Reg. 2.511(A) and Reg. 2.511(C) are expressly labeled as “criteria.” The numeric values in Reg. 2.511(B), by contrast, are not called “criteria.” Instead, they are denominated as “values.” Moreover, Reg. 2.511(B) expressly states that the Ecoregion minerals “values” were “determined from Arkansas’ least-disturbed ecoregion reference streams [and] are considered to be the maximum naturally occurring levels.” The clear meaning of this language is confirmed by the fact that ADEQ does not use the Ecoregion minerals values as part of the state’s water quality standards when it assesses the state’s water bodies for attainment of water quality standards.

Unfortunately, there have been instances in which some persons have erroneously concluded that the Ecoregion minerals values are intended as water quality criteria. As recently as last year, staff of EPA Region 6 indicated that they might take such a position. This mistaken position could have drastic consequences for many Arkansas municipalities that operate wastewater treatment systems.

The wastewater that enters a typical sanitary sewage treatment plant frequently contains minerals at levels that exceed many of the Ecoregion minerals values listed in Reg. 2.511(B); and there is no technology currently available that a municipality could realistically use to reduce the minerals concentrations in its wastewater. To avoid unintended and potentially costly demands that discharges of minerals be limited to historic naturally occurring background levels, the Municipalities submitting this set of Comments believe that the language of Reg. 2.511(B) should be revised to state more

clearly that the Ecoregion minerals values are not water quality criteria within the meaning of the Clean Water Act. ADEQ has proposed revisions to Reg. 2.511(B) that are helpful in providing this clarification. The Municipalities submitting these comments agree with the changes proposed by ADEQ in this regard, but the Municipalities believe that even stronger clarification should be given. To that end, the Municipalities request the following revisions to Regulation No. 2.

- Add a footnote attached to the title of Reg. 2.511(B) as follows:

“(B) Ecoregion Reference Stream Minerals Values^{*}

“* The Ecoregion values listed in Reg. 2.511(B) are exceptions to the general rule set forth in Reg. 2.501 that most values listed in Chapter 5 of Regulation No. 2 are intended to be water quality standards.”

- With the exception of the first sentence, adopt all of the revisions to Reg. 2.511(B) proposed by ADEQ.
- Replace the first sentence of Reg. 2.511(B) with the following:

“The following values listed below ~~determined~~ were derived from historical measurements of minerals concentrations collected in Arkansas’ least-disturbed ecoregion reference streams. These ecoregion minerals values are considered to be the maximum naturally occurring levels. They are historical benchmark values. They are not based upon, or connected to the protection of, any designated or existing use; and they are not intended as water quality criteria or water quality standards. Instead, the values are useful as historical benchmarks that aid in identifying and quantifying changes in the concentration of minerals that may be worthy of attention given the unique limitations in technology available to treat for minerals, but do not amount to a failure to attain water quality standards.”

2. Include a Substantial Explanation of the Changes to Reg. 2.511(B) in the Response to Comments.

In addition to revising the language of Reg. 2.511(B) as proposed above, the Municipalities submitting these comments believes that the Department should include in its response to comments a detailed explanation of the reasoning involved. This will help other persons, including EPA, understand the reasons why the Ecoregion values for

minerals should not be considered water quality criteria. In the unlikely event that any doubt or dispute remains after the changes are adopted, such an explanation will also assist in avoiding confusion in any subsequent discussions or litigation.

3. Establish a Simpler, Faster Procedure for Adopting Site Specific Modifications to Ecoregion Values for Minerals

Reg. 2.511(B) contemplates that a site specific modification of applicable minerals values may be appropriate if conditions in a water body significantly exceed the relevant Ecoregion values. Reg. 2.511(B) provides that site specific modifications of this sort should be undertaken using the procedures called for in Reg. 2.306 and Reg. 2.308. Recent experience indicates that site specific modifications using these procedures can be extremely costly and time consuming, frequently involving hundreds of thousands of dollars in expense and years to complete. The Municipalities believe that a simpler, less costly procedure should be adopted for modifying Ecoregion values for minerals, provided that the new minerals value will not exceed the existing water quality criterion for minerals in Reg. 2.511(C) (i.e., 250 mg/l chlorides, 250 mg/l sulfate, 500 mg/l total dissolved solids) and the modification will not involve removal of any existing or designated use.

The Municipalities are not committed to any specific form for a new procedure, so long as the procedure is simpler and less time consuming. To promote discussion of how such a simpler and less costly procedure might be structured, the Municipalities offer the following proposal.

- Add a new Reg. 2.312 as follows:
“2.312 This procedure is applicable in those cases where a party asks the Commission to adopt a site specific modification to an Ecoregion value for minerals and the modification: (i) will not involve the removal of an existing or designated use; and (ii) the new proposed value will not exceed the criteria set forth in Reg. 2.511(C).

“The Commission may allow a modification of an Ecoregion value for minerals under this section to accommodate important economic or social development in a local area if existing uses are maintained and protected fully

and the requirements for public participation in the State of Arkansas Continuing Planning Process are met. Requests for modification of an Ecoregion value for minerals under this section shall follow the procedures in Regulation No. 8 governing Rulemaking proceedings. The following information shall be submitted to the Commission and the Director to support the requested modification:

- (1) A summary history of point source discharges in the affected water body segments;
- (2) Toxicity analysis consisting of either:
 - a. Results of whole effluent toxicity testing of the relevant point source in the affected water body segment, spiked to 250 mg/l chlorides, 250 mg/l sulfate, and 500 mg/l total dissolved solids; or
 - b. some comparable or superior demonstration that there will be no adverse toxic effects to aquatic life due to minerals;
- (3) Statistical analysis of minerals concentrations from the relevant point source and the receiving stream to derive a new site specific minerals value
- (4) Mass balance computations to derive modifications to Ecoregion minerals values in downstream segments, if relevant; and
- (5) Documentation regarding the technological or economic limits of treatability.”

“The Department shall submit any comments it may have regarding the proposed modification within 60 days following receipt of the request filed with the Commission.”

“Modifications to Ecoregion values for minerals adopted by the Commission using the procedure set forth in this Reg. 2.306(B) shall be listed in a separate Appendix in Regulation No. 2.”

4. Consider Sending Questions Related to Minerals Back Out for Further Public Comment

The Municipalities submitting these comments respectfully submit that the Commission should consider sending all questions raised in the Triennial Review regarding minerals out for an additional period of public comment. The current provisions regarding minerals in Regulation No. 2 present serious problems, and the revisions proposed in the draft that was published for public comment does little to solve those problems. The changes proposed in this set of comments are significant and could not have been anticipated by members of the public. Questions related to minerals have also been affected by new legislation that was adopted after the Triennial Review process began. All of these factors weigh heavily in favor of setting an additional round of comments focused on the questions related to minerals.

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