

April 20, 2015

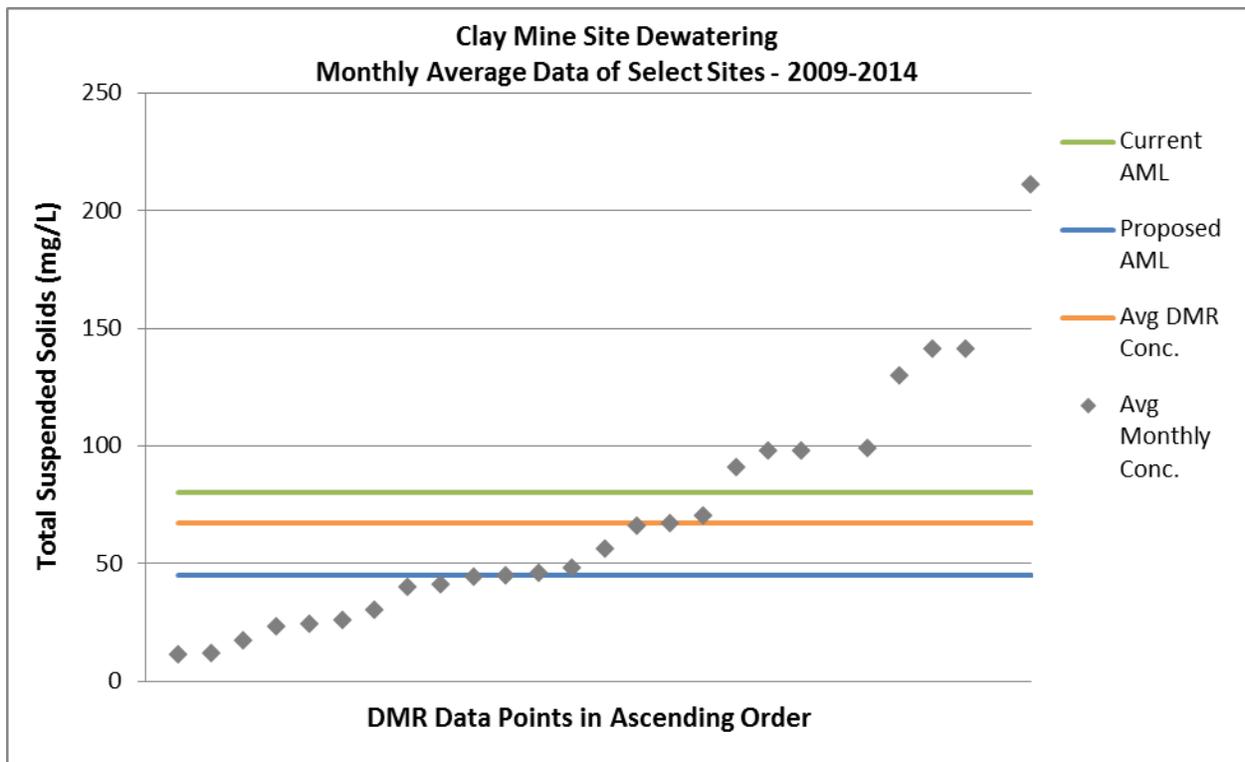
NPDES Permits and Engineering Section  
MDNR Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102

**Re: Permit Comments on Draft MO-G84**

Thank you for the opportunity to provide comments on the draft MO-G84 permit for clay mining. I offer the following for your consideration.

**Reduced Total Suspended Solids (TSS) Limitation for Process Water**

I question the advisability of lowering the TSS limits from 120/80 (daily max/monthly average) to 90/45. An analysis of data from seven sites that have mined clay since 2009 indicates that compliance with the current limit is already difficult and that lowering the limit would exacerbate the problem. A lower limit would not only increase the incidence of noncompliance, but it would remove the existing margin of safety for operators as they continue to work within the already challenging parameters.



I recognize that the permit offers a lower monthly average and a higher daily maximum limit; however, in practical application, it is difficult to obtain more than one sample in a given month. This is because process water discharges are dependent upon the scheduling of the mining and given weather conditions. Seldom do the two align such that multiple sampling is needed or possible in a given month. As a result, the monthly average limit is the limit for practical purposes. For this reason, a reduction in the monthly average limit will have significant implications for operators.

I also note that the Environmental Protection Agency's (EPA's) effluent limitation guidelines (ELGs) at 40 CFR 436 do not set numeric limits for refractory clays or any other mineral mining categories that would be considered comparable to the majority of the clays currently mined in Missouri on a large scale.

I appreciate the discussion in the fact sheet of the types of clays addressed in the various development and technical support documents; however, I would encourage the state not to rely on these documents for a number of reasons.

1. The EPA specifically reserved industrial clay categories in developing the regulations at 40 CFR 436, thereby disregarding the recommendations of the original *Development Document for Interim Final Effluent Limitations Guidelines and New Source Performance Standards for the Clay, Ceramic, Refractory and Miscellaneous Minerals Volume III, 1975* and the subsequent development and technical support documents published in 1979 and 2004, respectively.
2. The data that drive the recommendations in these development documents is so negligible that it is inadequate to represent a national standard. The following table indicates just how few data points that the development documents cited as representative of the various types of clay.

<b>Clay Subcategory (From Federal Development Documents)</b>	<b>Recommended Mine Dewatering Limit (mg/l) (From draft MO-G84)</b>	<b>Number of Data Points Used to Derive the Recommendation</b>
Bentonite	35	0
Fire Clay (non-acid)	35	0
Fire Clay (acid)	70	14
Fuller's Earth	35	1
Shale/Common Clay	35	0
Kaolin (dry)	35	0
Kaolin (wet)	90	7
Ball Clay	35	0

3. The types of clay discussed in the development documents are not representative of the clays that are mined industrially in Missouri on a significant scale. For example, the data set for Fire Clay indicates that nine of the 14 samples of untreated mine water showed an average TSS of 15.9 mg/l. Similarly, the average TSS for Kaolin Clay mine water was about 27.9 mg/l. With one exception, all of these were discharged without treatment. If clay producers in Missouri could discharge mine pit water at these levels with no treatment, then the TSS limitation in the draft MO-G84 would not be an issue. Clearly there is a disconnect between the clays cited in the development documents and the clays mined in Missouri.

Because of the inadequacies of the data, the development documents are not appropriate for deriving limits for Missouri's general permit. They are not federal regulatory standards, and Missouri is under no obligation to adopt their findings. I would ask that the department develop an appropriate standard based on current, representative data or reissue the current permit limits until such a standard can be derived.

## pH

In EPA's ELG for non-metallic minerals (40 CFR 436) and in EPA's multi-sector general stormwater permit, the recommended pH range is consistently 6.0–9.0 s.u. It is apparent that EPA considers that range to be both technically feasible as well as protective of water quality. The minimum limit proposed by the draft permit (6.5 s.u.) is not consistent with these sources, which the department otherwise considers reliable. This is an important issue because in some situations the chemical relationship between pH and TSS is critical in the 6.0 to 6.5 range. As pH drops, solids and metals often precipitate more effectively. Lowering the pH by itself or in conjunction with the aid of chemical flocculants or precipitants can be important in achieving TSS reduction. In some situations, meeting both the TSS limit and the minimum pH of 6.5 can be extremely difficult using current practicable technologies.

## Fact Sheet Statements Regarding Future Conditions

The following statement, which appears in the fact sheet, should be removed.

General permits are required to protect waters of the State while authorizing activities under the permit. As a result, the effluent limitations established in this permit are based on the more conservative ELGs established by the EPA for the clay mining industry. Activities that are not able to meet the effluent guidelines in this permit may need to apply for a site-specific permit. Based on 40 CFR 436 and documents from the EPA (the Development Documents and the TSD), guidelines for the clay industry are fairly clear and straightforward. Discharge of process generated wastewater is not authorized in six of the seven situations and mine dewatering is authorized at a Total Suspended Solids limit of 35 mg/L daily maximum for six of the eight situations. It is the intention of the department to align the permit requirements to the EPA guidelines. The effluent limitations in this permit begin the transition of the clay mining industry to the EPA guidelines and are an appropriate first step. Future iterations of this permit will implement the no discharge of process generated wastewater and the Total Suspended Solids limit of 35 mg/L daily maximum for mine dewatering.

This statement contains a number of factual and procedural errors that make it unsuitable for inclusion in the fact sheet.

1. The statement that the proposed effluent limits are based on "ELGs established by the EPA" suggests that the state is adopting a federal regulatory effluent standard. As noted earlier, EPA specifically ignored the findings of the development documents and did not promulgate an ELG standard.
2. The federal recommendations are not a clear standard. As noted above, the data is inadequate for the purpose of developing legally binding effluent limitations. The state should exercise its abundance of discretion to adopt criteria suitable to state-specific circumstances.

3. The discussion of "process water" lacks clear definition of the term. In the development documents "process water" is water used in discussing clay processing, after it is mined, whereas the G84 permit defines "process water" in the context of dewatering of mine pits. If the next permit will "implement the no discharge of process wastewater," it could be inferred that no pit water could be discharged under any circumstance. I hope that is not the department's intent.
4. It does not seem to be an appropriate use of the fact sheet to anticipate future permit conditions or attempt to bind permittees and the department to future conditions.

### **Constructive Changes**

I do note the following changes from previous drafts, which are appreciated and supported:

- Class C setback has been changed to a best management practice (BMP) protection standard. I believe this is a much more practicable standard.
- The requirement to maintain the Storm Water Pollution Prevention Plan onsite has been modified, which will make compliance much easier.
- The clarification of Class W wetlands in the applicability section will reduce ambiguity.
- The requirement for a land disturbance permit has been removed, which makes good practical sense.

I would like to request an informal meeting with department staff and management to discuss the primary concerns expressed above. I will be contacting the department to facilitate such a meeting.

Please feel free to contact me with any comments or questions regarding this letter. I can be reached at 573-638-5024 or by email at [egalbraith@barr.com](mailto:egalbraith@barr.com). Thank you.

Sincerely,

Edward Galbraith

/eg



associated electric cooperative, inc.

2814 S. Golden, P.O. Box 754  
Springfield, Missouri 65801-0754  
417-881-1204 FAX 417-885-9252

April 20, 2015

Attn: NPDES Permits and Engineering Section/Permit Comments  
Water Protection Program  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

Re: AECI Comments on Draft Missouri State Operating Permit MO-G840000 (March 20, 2015);  
Submitted Electronically to publicnoticenpdes@dnr.mo.gov

To Whom It May Concern:

Associated Electric Cooperative, Inc. ("AECI") respectfully offers the following comments on the proposed draft MO-G840000 permit.

**Under APPLICABILITY, Item 3:**

We suggest that the following statement be included as described in the current permit structure, "A separate land disturbance permit is not required for a clay mining facility that holds this general permit for stormwater." Since the G84 permit includes requirements for the development and implementation of a Stormwater Pollution Prevention Plan ("SWPPP"), which is the primary requirement of a land disturbance permit, a separate land disturbance permit should not be required. We recommend that this is clearly stated in the G84 permit.

**Under APPLICABILITY, Item 12:**

Although the 305(b) integrated report includes the 303(d) list of impaired waterways, it is the latter which will need to be evaluated on a case-by-case basis for inclusion under this permit. We suggest that "305(b)" be replaced with "303(d)."

**Under STORMWATER MONITORING REQUIREMENTS, Table A-3:**

We request that the basis for establishing Daily Maximum Benchmarks for Oil & Grease and Settleable Solids as equal to the Monthly Average Final Effluent Limits in the current permit be documented in the factsheet. In addition, we request that the basis for including a Daily Maximum Benchmark for Total Suspended Solids of 100 mg/L in Stormwater Runoff be documented in the factsheet.

**Under STORMWATER REQUIREMENTS, Item 1:**

Sampling and analysis of stormwater discharges for Total Suspended Solids is not addressed. We suggest that Total Suspended Solids be removed from Table A-3.

**Under FACTSHEET, Part IV – Effluent Limitations Determination:**

The units shown in the Effluent Limitations for Table A-2 are not consistent with those shown elsewhere in the permit. We suggest replacing “MG/L” with “mg/L” for Oil & Grease and Total Suspended Solids, and “ml/L” for Settleable Solids.

Again, thank you for this opportunity to provide comment on this proposed permit.

Respectfully,

A handwritten signature in black ink, appearing to read "Janelle Lemen". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Janelle Lemen  
Environmental Analyst  
Associated Electric Cooperative, Inc.