WN-16J

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RETURN RECEIPT REQUESTED

George Elmaraghy, Chief
Surface Water Division
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049

Re: U.S. EPA Comments on Draft NPDES Permit, American Energy Corporation/Century Mine (Bennoc Refuse Disposal Area), Alledonia, Ohio, Permit No. OIL00159*AD, Application No. OH0144576

Dear Mr. Elmaraghy:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft National Pollutant Discharge Elimination System Permit (Permit) and Public Notice/Fact Sheet, dated October 30, 2012. As you may recall, on December 19, 2012, EPA notified the Ohio Environmental Protection Agency (OEPA), by the enclosed letter, that EPA did not receive a complete record for the Permit. As a result, we were unable to complete our review of the Permit. The December 19, 2012 letter also specified the conditions, per the Memorandum of Agreement with OEPA, that OEPA must meet prior to final issuance of the Permit. In response, OEPA submitted additional information regarding the subject facility which we received on December 20, 2012 and January 4, 2013. The additional information included American Energy Corporation's (AEC) comments on the Permit. Recently, on June 12, 2013, OEPA issued a 30-day extension to the public comment period for the Permit which expires on July 12, 2013.

EPA has identified the following significant issues which, if not corrected, may prompt EPA to object to the Permit:

1. The Permit does not contain the appropriate limit for sulfate, in order to be protective of the water quality criterion for the receiving stream. (40 C.F.R. § 122.44(d))

   EPA would include an effluent limitation for sulfate in the permit of 1684 mg/L. This limitation was derived using OEPA's spreadsheet which had the following formula: Acute WQS for Sulfate= [1276.7+5.508(hardness) - 1.457(chloride)]*0.65.

EPA used the same inputs as AEC and OEPA, which were the average of values from the OEPA online water quality map for Piney Creek at State Route 148: hardness = 283; chloride = 168. OEPA proposed a sulfate limit of 2435 mg/L, based on applying the water quality criterion to the downstream Piney Creek but not to the unnamed tributaries to Piney Creek that the facility actually discharges to. The Ohio calculation used the effluent hardness and chloride values of 500 mg/L and 195 mg/L, respectively. EPA would protect the unnamed tributaries and Piney Creek, but would use the Piney Creek hardness and chloride values. The sulfate standard of 1684 mg/L would be applied as the sulfate limit because the permit and supporting information did not contain sufficient information (i.e., flows, flow determination methods, receiving stream water chemistry data) to estimate available dilution and assimilative capacity of the unnamed tributaries. Additionally, EPA does not agree with OEPA's use of the 1.3 multiplier for deriving Inside Mixing Zone Maximum Criteria (IMZM) values from Outside Mixing Zone Maximum Criteria (OMZM) values, since insufficient information is available to allow for dilution in the unnamed tributaries.

2. The Permit does not contain a numeric limit for TDS, inadequately limits the duration of discharge, and lacks limitations for low-flow conditions and, therefore, does not protect the receiving water regarding chronic exposure. (40 C.F.R. § 122.44(d))

   EPA would include monthly average and maximum daily water quality based effluent limits for TDS based on Ohio's numeric water quality standard of 1500 mg/L. If the applicant wishes to pursue an intermittent discharge scenario as an enforceable provision in the Permit, EPA would consider alternative methods of implementing the TDS standard. To ensure protection based on chronic exposure, such an alternative method should be consistent with federal regulations and guidance.
   OEPA's Captina Creek Watershed Report DSW/EAS 2010-4-1, which includes the receiving waters for this Permit, Piney Creek and unnamed tributaries, notes macro-invertebrate communities are significantly less diverse in lower Piney Creek than in similar Captina Creek tributaries and notes the absence of mayflies due to mine discharges in the watershed. OEPA, during its consideration of the WLA for TDS in setting this Permit's limits and conditions, must include a restriction to discharges during low flow conditions to address cumulative impacts to receiving waters.

3. The monitoring frequencies for Pond#001, for several parameters, of once every 2 weeks, is insufficient and inconsistent with monitoring frequencies for Pond #002 for same parameters at twice a week. (40 C.F.R. § 122.44(C)(3))

EPA would increase Pond #001 monitoring frequencies to twice a week for: pH, TSS, chloride, sulfate, selenium, iron and manganese.

4. The Permit does not contain limits or requirements for Whole Effluent Toxicity (WET) monitoring and testing. (40 C.F.R. § 122.44(d)(1)(v))

   EPA would include a limit for acute toxicity if the discharge regime is non-continuous and for chronic toxicity if a continuous discharge regime is contemplated.

5. The Permit, as currently written, does not sufficiently ensure assessment for effluent impacts to receiving streams' aquatic biota, if the discharge is of a continuous nature. (40 C.F.R. § 122.44(d)(1))

   In order to ensure that the narrative standard of no toxics in toxic amounts is implemented in the Permit, EPA would require in-stream bio-monitoring upstream and downstream of the discharge in Piney Creek. The Permit would require biological and water quality sampling and monitoring in Piney Creek upstream and downstream of where the Bennoc Area discharges come into Piney Creek. Upstream sampling and monitoring locations would be required downstream of impacts from other discharges. Additionally, sampling and monitoring would be required in accordance with OEPA and EPA procedures and standard methods.

   Sampling and monitoring would include;

   i. Stream Habitat Evaluation,

   ii. Physical Habitat Evaluation,

   iii. Biological Community Assessment, and

   iv. Surface Water Chemistry

   Water sample collection would be required in accordance with appropriate methods, as outlined in Parts II and III of the Manual of Ohio EPA Surveillance Methods and Quality Assurance Practices. Water parameters to be sampled for must include; sulfate, total suspended solids (TSS), total dissolved solids (TDS), acidity, alkalinity, conductivity, chloride, pH, dissolved oxygen, hardness, and the following metals: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium (total), chromium (hexavalent), cobalt, copper, iron, lead, manganese, magnesium, mercury, nickel, potassium, selenium*, silver, sodium, thallium, vanadium, zinc, cyanide (total) and cyanide (amenable). Field measurements of dissolved oxygen, pH, temperature, and conductivity would be required. Analytical methods required would be in accordance with 40 C.F.R. Part 136 and OEPA's Manual of Laboratory Operating

Procedures. *Low level methods shall be used for Selenium, such that the quantification level is 1.0 ug/L.

v. Field Quality Control Samples

Quality control requirements are also found in the Manual of Ohio EPA Surveillance Methods and Quality Assurance Practices.

vi. EPA would include a permit condition to require submittal of a sampling and monitoring plan, and annual reports documenting findings and results.

We look forward to working with you to resolve the issues identified above. Our goal is to ensure that the Permit complies with the CWA and EPA's implementing regulations prior to OEPA proposing the Permit for final issuance.

When the proposed Permit is prepared, please forward one copy and any comments received during any public notice period to Janet Pellegrini, of my staff, at NPDES Programs Branch, Mail Code, WN-16J, 77 West Jackson Blvd. Chicago, IL 60604. If you have any questions related to EPA's review please call me or have your staff contact Ms. Pellegrini at (312) 886-4298 or by Email at pellegrini.janet@epa.gov.

Thank you for your cooperation during the review process and your thoughtful consideration of our comments.

DRAFT

Sincerely,

Kevin M. Pierard, Chief
NPDES Programs Branch

Enclosure

cc: American Energy Corporation (Certified Mail Return Receipt 7009 1680 0000 7678 5587)
Eric Nygaard, Permit Writer, OEPA

bcc: Janet Pellegrini
Reading File
Gary Prichard, Office of Regional Counsel
Rich Murawski, Office of Regional Counsel
WECAB

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G: /NPDES/FY'13 State Permit Reviews/Ohio Reviews/OH014456 - American Energy/CommentsAECJuly-3-13

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