

BEFORE THE ARKANSAS COMMISSION ON  
POLLUTION CONTROL & ECOLOGY

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AR. POLLUTION CONTROL  
& ECOLOGY COMMISSION  
FILED BY  
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IN RE: REQUEST BY ASSOCIATED )  
ELECTRIC COOPERATIVE, INC. )  
(DELL POWER PLANT) TO INITIATE ) DOCKET NO. 05-012-R  
RULEMAKING TO AMEND )  
REGULATION NO. 2 )

ASSOCIATED ELECTRIC COOPERATIVE, INC.'S  
STATEMENT OF BASIS AND PURPOSE

Associated Electric Cooperative, Inc., for its Statement of Basis and Purpose, states:

1. The Arkansas Pollution Control and Ecology Commission (APCEC) is given the power and duty to promulgate rules and regulations implementing and effectuating the powers and duties of the Arkansas Department of Environmental Quality (ADEQ) and APCEC, including regulations prescribing water quality standards (WQS). ARK. CODE ANN. § 8-4-202(a) and (b).

2. ARK. CODE ANN. § 8-4-202(c) provides that any person has the right to petition the APCEC for an amendment of any rule or regulation. On November 10, 2005, AECI filed its Petition to Initiate Third-Party Rulemaking to Amend APCEC Regulation No. 2. AECI's Petition was submitted pursuant to, and in compliance with Section 2.306 of APCEC Regulation No. 2, Section 3.4 of APCEC Regulation No. 8, and the Continuing Planning Process. On December 9, 2005, the APCEC entered Minute Order No. 05-32 which granted AECI's Petition and initiated rulemaking on the changes proposed to Regulation No. 2 by AECI.

3. AECI has purchased a gas fired combined cycle electric generating plant in Dell, Arkansas (the Dell Power Plant) from TECO Power Systems (TECO). TECO began construction on the Dell Power Plant and then halted construction of the facility when it was approximately 65% complete. In July, 2002, ADEQ issued NPDES Permit No. AR0049425 to



TECO based on TECO's application which included a proposal for constructing a seven (7) mile pipeline for discharging the facility effluent to a large drainage ditch (Ditch No. 3) located to the west of the facility. Ditch No. 3 flows into an Ecologically Sensitive Waterbody -- the Right Hand Chute of the Little River. As a more environmentally acceptable and less costly alternative to piping the discharge to Ditch No. 3, AECI proposes to discharge to Ditch No. 27 which originates at the southern property boundary of the facility. Ditch No. 27 flows south for approximately 4.3 miles and empties into Ditch No. 6. Ditch No. 6 is a large drainage ditch which flows approximately 25 miles southwest to the Tyronza River which ultimately empties into the St. Francis River.

4. The effluent from the Dell Power Plant will consist primarily of cooling tower blowdown along with filter backwash and low volume waste (boiler blowdown, wastewater from water treatment, and effluent from floor and yard drains). With the exception of sulfate, TDS and temperature, the effluent will meet the Arkansas WQS. The sulfate and TDS in the plant effluent originate from the groundwater supply; however, the concentrations will be increased because of evaporation in the cooling tower. The ambient water temperature in Ditch No. 27 (as well as other drainage ditches in the area) naturally exceeds the Arkansas WQS temperature criterion of 89.6° F.

5. AECI is specifically requesting the following amendments to APCEC Regulation No. 2:

- a. modify the dissolved minerals and temperature criteria for the entire length of Ditch No. 27 as follows:

TDS from 411 mg/L to 1,200 mg/L  
sulfate from 37 mg/L to 480 mg/L  
temperature from 89.6° F to 95° F

- b. modify the dissolved minerals criteria for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6 as follows:

TDS from 411 mg/L to 630 mg/L  
sulfate from 37 mg/L to 210 mg/L

- c. modify the sulfate criterion for the Tyronza River from its the confluence with Ditch No. 6 to its mouth as follows:

sulfate from 30 mg/L to 60 mg/L

- d. remove the Domestic Drinking Water Supply use designation for the entire length of Ditch No. 27.

- e. remove the Domestic Drinking Water Supply use designation for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6.

6. On October 14, 2005, AECI submitted a Use Attainability Analysis (UAA) in support of the Petition to ADEQ, EPA-Region 6, Arkansas Game & Fish, and the United States Fish and Wildlife Service. The UAA fully satisfied the information requirements of Section 2.306 of Regulation No. 2 for amending Regulation No. 2

7. AECI's Petition is supported by the following facts:

- The discharge from the Dell Power Plant will not have an adverse affect on the aquatic life in Ditch No. 27, Ditch No. 6, or the Tyronza River;
- The requested WQS changes will have no adverse effect on the aquatic life communities of the St. Francis River into which the affected drainage ditches and the Tyronza River empty, nor will it cause WQS to be exceeded in the St. Francis River;
- Based upon the performance specifications of the Dell Power Plant cooling tower, the effluent temperature is not expected to exceed 95° F and the temperature data for the region shows that the maximum summertime ambient water temperatures in the delta ecoregion naturally exceed the ecoregion temperature criterion of 89.6° F;
- Toxicity testing of simulated Dell Power Plant effluent showed no lethal or sub-lethal toxicity;

- The domestic water supply use designation for Ditch Nos. 27 and 6, which was assigned by default, is not an existing use and is not an attainable use because: (i) natural, ephemeral and low flow conditions prevent the attainment of the use; and (ii) the hydrologic modifications prevent the attainment of the use.
- The requested changes will not adversely affect the agricultural water supply use (irrigation) of Ditch No. 27, Ditch No. 6 or the Tyronza River if such use is desired for these waterbodies in the future;
- The activities necessary to construct the 7 mile pipeline would disturb large tracts of farm land and would significantly disrupt local agricultural interests;
- The only technologically feasible effluent treatment (reverse osmosis) is prohibitively expensive, generates a concentrated brine which is environmentally difficult to dispose of, is not required to meet the existing uses, and would not add any significant environmental protection.

Respectfully submitted,

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