BEFORE THE ARKANSAS COMMISSION ON POLLUTION CONTROL & ECOLOGY

IN RE:	REQUEST BY ASSOCIATED)		
	ELECTRIC COOPERATIVE, INC.)		
	(DELL POWER PLANT) TO INITIATE)	DOCKET NO.	
	RULEMAKING TO AMEND)	_	
	REGULATION NO. 2	j		

PETITION TO INITIATE THIRD-PARTY RULEMAKING TO AMEND REGULATION NO. 2

Petitioner, Associated Electric Cooperative, Inc. ("AECI"), for its Petition to Initiate

Third-Party Rulemaking to Amend Regulation No. 2 ("Petition") states:

- 1. This Petition is submitted pursuant to Section 2.306 of Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 2, Section 3.4 of APCEC Regulation No. 8 and the Continuing Planning Process. As set forth more fully below in paragraph 9, AECI is requesting: (a) changes to the sulfate, total dissolved minerals (TDS) and temperature criteria of the Arkansas Water Quality Standards (WQS) for Ditch No. 27; (b) changes to the sulfate and TDS criteria for a portion of Ditch No. 6; (c) changes to the sulfate criterion for a portion of the Tyronza River; and (c) removal of the domestic drinking water supply use designation for Ditch No. 27 and for a portion of Ditch No. 6.
- 2. Ditch Nos. 27 and 6 are part of a vast network of regularly maintained, man-made ditches constructed in Mississippi County in the early 1900s for the purpose of draining the area to promote and establish agricultural activities. The drainage ditches are regularly maintained to established specifications as to width and depth by Subdistrict 3 of Grassy Lake and Tyronza Drainage District 9 headquartered in Osceola, Arkansas.
- 3. AECI, which is headquartered in Springfield, Missouri, has purchased a gas fired combined cycle electric generating plant in Dell, Arkansas (the Dell Power Plant). In 2002,

TECO Power Systems (TECO) began construction on the Dell Power Plant and then halted construction of the facility when it was approximately 65% complete. AECI is in the process of completing construction.

- 4. 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 Dell Power Plant 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.
- 5. As a more environmentally acceptable and less costly alternative to piping the discharge to Ditch No. 3, AECI wishes to discharge to Ditch No. 27 which originates at the southern property boundary of the Dell Power Plant. Ditch No. 27 flows south for approximately 4.3 miles and empties into Ditch No. 6. Ditch No. 6 is a large drainage ditch (watershed of approximately 55 mi² at the Ditch No. 27/Ditch No. 6 confluence) which then flows approximately 25 miles southwest to the Tyronza River. The Tyronza River eventually empties into the St. Frances River just upstream of Parkin, Arkansas (in Cross County).
- 6. 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 applicable Arkansas WQS for Ditch Nos. 27 and 6 are:

Sulfate – 37 mg/L TDS – 411 mg/L Temperature – 89.6° F. The applicable sulfate WQS for the Tyronza River is 30 mg/L.

7. Groundwater from the Wilcox Aquifer will be used to supply water for the power plant. The sulfate and TDS in the plant effluent originate from the groundwater supply; however, the sulfate and TDS concentrations in the groundwater will be increased because of evaporation in the cooling tower. Further, the ambient water temperature in Ditch No. 27 (as well as other drainage ditches in the area) naturally exceed the Arkansas WQS temperature criterion of 89.6° F.

8. Pursuant to APCEC Regulation No. 2, the three watercourses at issue herein are assigned the following designated uses:

Ditch No. 27

Seasonal Channel Altered Delta Fishery Domestic, industrial and agricultural water supply Secondary Contact Recreation

Ditch No. 6

Perennial Channel Altered Delta Fishery Domestic, industrial and agricultural water supply Primary and Secondary Contact Recreation

Tyronza River

Perennial Channel Altered Delta Fishery Domestic, industrial and agricultural water supply Primary and Secondary Contact Recreation

These designated uses are existing uses with the exception of the domestic drinking water supply use for Ditch Nos. 27 and 6.

9. Through this Petition, AECI is 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.
- 10. This Petition is supported by the following facts:
 - Based upon the performance specifications of the Dell Power Plant cooling tower, the effluent temperature is not expected to exceed 95° F and the historical 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;
 - The requested 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;
 - Chronic toxicity testing of simulated Dell Power Plant effluent showed no lethal

- or sub-lethal toxicity;
- The discharge effluent 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 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;
- 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.
- 11. On October 14, 2005, AECI submitted to ADEQ and EPA a Use Attainability Analysis (UAA) in support of this Petition. The UAA is filed contemporaneously herewith as Exhibit "A." This document fully satisfies the information requirements of Section 2.306 of Regulation No. 2 for Site Specific Criteria for amending Regulation No. 2.
- 12. Documentation supporting the changes requested by paragraph 9, above, have been reviewed by the Arkansas Natural Resources Commission and the Arkansas Department of Health. The Arkansas Natural Resources Commission has provided documentation that the

requested changes do not conflict with the Arkansas Water Plan. The Arkansas Department of Health has provided documentation that neither Ditch No. 27 nor Ditch No. 6 has been approved as, or is being considered as, domestic water sources. Copies of these agencies' documentation are attached hereto as Exhibit "B" and incorporated herein.

- 13. A black-lined version of the specific change which is requested to Regulation No.2 is attached hereto as Exhibit "C" and is incorporated herein.
- 14. The Questionnaire for Filing Proposed Rules and Regulations with the Arkansas Legislative Council and Joint Interim Committee is attached hereto as Exhibit "D" and is incorporated herein.
- 15. The Financial Impact Statement is attached hereto as Exhibit "E" and is incorporated herein.
- 16. The Economic Impact/Environmental Benefit Analysis is attached hereto as Exhibit "F" and is incorporated herein.
- 17. The Minute Order to initiate rulemaking is attached hereto as Exhibit "G" and is incorporated herein.
- 18. AECI has reviewed Executive Order 05-04 and has determined that the request herein does not affect small business. Therefore no economic impact analysis by the Arkansas Department of Economic Development is required.

WHEREFORE, Associated Electric Cooperative, Inc. requests that the Commission initiate a rulemaking to amend Regulation No. 2 in the manner requested in Paragraph 9, above.

Respectfully submitted,

MITCHELL, WILLIAMS, SELIG GATES & WOODYARD, P.L.L.C. 425 West Capitol Avenue, Suite 1800 Little Rock, AR 72201 (501) 688-8800

Marcella J. Taylor, AR Bar No. 82156

Attorneys for Associated Electric Cooperative, Inc.

CERTIFICATE OF SERVICE

I, Marcella J. Taylor, state that I have, on this 10th day of November, 2005, hand-delivered a copy of the foregoing Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 to Ms. Ellen Carpenter, Arkansas Department of Environmental Quality, 8001 National Drive, Little Rock, AR 72219.

Marcella J. Taylor

USE ATTAINABILITY ANALYSIS REPORT (filed simultaneously)

EXHIBIT A



Arkansas Natural Resources Commission

J. Randy Young, PE Executive Director 101 East Capitol, Suite 350 Little Rock, Arkansas 72201 http://www.anrc.arkansas.gov/

Phone: (501) 682-1611 Fax: (501) 682-3991 E-mail: anrc@arkansas.gov Mike Huckabee Governor

October 6, 2005

Mr. Jerry Bindel Associated Electric Cooperative, Inc. P.O. Box 754 Springfield, Missouri 65801-0754

RE: Removal of Designated Domestic Water Supply Use / Modification of Arkansas Water Quality Standards for Ditch #27, Ditch #6 and the Tyronza River

Dear Mr. Bindel:

The Commission has received information from FTN Associates regarding the removal of the Domestic Water Supply Use Designation from Ditch Number 27 and Ditch Number 6, as well as modification of the standards for temperature, total dissolved solids and sulfate for these two tributary ditches and the Tyronza River.

Based upon our evaluation of the information submitted in support of this request, it has been determined that the removal of the Designated Domestic Water Supply Use would not conflict with the Arkansas State Water Plan. Similarly, modification of the Arkansas Water Quality Standards for temperature, total dissolved solids and sulfate for tributary Ditch Number 27, tributary Ditch Number 6 and the Tyronza River (from its confluence with Ditch Number 6 to its mouth) will not conflict with the Arkansas State Water Plan.

All information submitted on behalf of this request will be placed on file and included in future modifications of the Arkansas State Water Plan. If you need any further assistance, or have any questions, please contact Steve Loop at (501)-682-3959.

Sincerely,

Cc:

Earl T. Smith, P.E., Chief

Water Resources Division

Mr. Jim Malcomb, FTN Assoc., #3 Innwood Cr. Ste, 220, Little Rock, AR 72211

Ms. Marcy Taylor, Mitchell Williams, 425 W Capitol Ave., Ste. 1800, Little Rock, AR 72201-3525

File.

PENGAD-Bayonan, N. J.

Plan Clark II of June



Arkansas Department of Health and Human Services



Division of Health

Paul K. Halverson, DrPH, Director

Engineering Section - Environmental Health Branch - Center for Local Public Health

ostal Address P. O. Box 1437, Slot H-37 Little Rock, AR 72203-1437

1-501-661-2623

TDD: 1-800-234-4399

Physical Address for UPS or Fedex

4815 West Markham St., Slot H-37

Little Rock, AR 72205

Fax: 1-501-661-2032

November 4, 2005

Mr. Jim Malcolm FTN Associates, Ltd. 3 Innwood Circle, Suite 220 Little Rock, AR 72211

RE: Correction to September 16, 2005 letter regarding the Dell Power Plant Dischargeto Ditch 27 near Dell, AR, FTN No. 6028-020

Dear Mr. Malcolm.

A staff review has been made of the information received on the referenced project. The Engineering Section has no comments on the submittal. The stream reaches referred to are not now or being considered as public water supplies.

If you have any questions or comments, please coordinate them through Gerry Conley, 501-661-2067.

Sincerely,

Bob Makin, P.E. Assistant Director

Engineering Section

BM:SB:GG:MM:GC:ac

Cc:

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Stream	Con CI	ncentration-mg/L SO4 ⁼	TDS
Arkansas River Basin	<u>CI</u>	<u>504</u>	100
Arkansas River (Mouth to L&D #7)	250	100	500
Bayou Meto (Rocky Branch to Bayou Two Prairie)	64*	ER	ER
Rocky Branch Creek	64*	ER	ER
Arkansas River (L&D #7 to L&D #10)	250	100	500
Cadron Creek	20	20	100
Arkansas River (L&D #10 to Oklahoma line,			
including Dardanelle Reservoir)	250	120	500
James Fork	20	100	275
Illinois River	20	20	300
Poteau River from Business Hwy 71 to Stateline	120	60	500
Unnamed trib at Waldron	150	70	660
White River Basin			
White River (Mouth to Dam #3)	20	60	430
Big Creek	20	30	270
Unnamed trib from Frit Ind.	ER	48*	ER
Cache River	20	30	270
Bayou DeView	20	30	270
Little Red River (including Greers Ferry Reservoir)	20	30	100
Black River	20	30	270
Strawberry River	20	30	270
Spring River	20	30	290
Eleven Point River	20	30	270
Stennitt Creek	ER	ER	456*
South Fork Spring River	20	30	270
Myatt Creek	20	30	270
Current River	20	30	270
White River (Dam #3 to Missouri line, including Bull			
Shoals Reservoir)	20	20	180
Buffalo River	20	20	200
Crooked Creek	20	20	200
White River (Missouri line to headwaters, including	20	20	160
Beaver Reservoir)			
Kings River	20	20	150
West Fork White River	20	20	150
St. Francis River Basin			
St. Francis River (Mouth to 36E N. Lat.)	10	30	330
L'Anguille River	20	30	235
Tyronza River	20	30	350
the state of the s	20	ż.	350
Little River	20	30	365
Pemiscot Bayou	20	30	380
St. Francis River (36E N. Lat. To 36E 30' N. Lat.)	10	20	180
Ouachita River Basin			
Bayou Bartholomew	30	30	220



DESIGNATED USES: DELTA ECOREGION

(Plates D-1, D-2, D-3, D-4)

Extraordinary Resource Waters

Second Creek (D-4)

Cache River above Cache Bayou -adjacent to natural areas (D-3)

Arkansas River below Dam #2 (D-5)

Strawberry River (D-1)

Two Prairie Bayou adjacent to natural areas (D-3)

Natural and Scenic Waterways

None

Ecologically Sensitive Waterbodies

Lower St. Francis River and lower 10 miles of Straight Slough -location of fat pocketbook mussel (D-2, D-4)

Right Hand Chute at confluence with St. Francis River -location of fat pocketbook mussel (D-2)

Departee Creek -location of flat floater mussel (D-l)

Black River at mouth of Spring River -location of pink mucket mussel (D-1)

Channel-altered Delta Ecoregion Streams – These include the majority of the streams in this ecoregion and are characterized by substantial alteration of the morphology of their main-stream channel as well as their tributary streams. Such alteration of the tributaries of these streams significantly affects the water quality and hydrology of the streams and their watersheds. Most of the upper segments of these waters have been dredged and straightened into ditches. Additionally most of the tributaries of these streams have been straightened, ditched and, in some cases, rerouted to quickly move water off the agriculture fields and into the major streams. In the lower segments of these waters, channel realignment is less expansive but most of these channels have been "snagged" to remove any instream obstructions (brush, logs, and other debris) and the stream channel and banks have been dredged to uniform depths and cleared of any obstructions. These include Cache River, Bayou DeView, Village Creek, Blackfish Bayou and others to be determined by the Department on a case by case basis.

Primary Contact Recreation - all streams with watersheds of greater than 10 mi² and all lakes/reservoirs

Secondary Contact Recreation – all waters

Domestic, Industrial and Agricultural Water Supply - all waters

Fisheries

Trout - none

Lakes and Reservoirs - all

Streams

Seasonal Delta fishery – all streams with watersheds of less than 10 mi2 except as otherwise provided in Reg. 2.505

Perennial Delta fishery – all streams with watersheds 10 mi2 or larger and those waters where discharges equal or exceed 1 CFS

Use Variation Supported by UAA

Unnamed ditch to Little Lagrue Bayou -perennial Delta fishery (D-3, #1)

Little Lake Bayou -seasonal Delta fishery; no primary contact (D-5, #2)

Coon Creek and unnamed tributary from Frit Ind. -no domestic water supply use (D-1,#3)

Rocky Branch Creek and Bayou Meto from Rocky Branch Creek to Bayou Two Prairie - no domestic water supply use (D-3 #4)

Ditch No. 27 – no domestic water supply use (D-2, #5)

Ditch No. 6 – no domestic water supply use (D-2, #6)

SPECIFIC STANDARDS: DEL T A ECOREGION (Plates D-J, D-2, D-3, D-4)

	Least-A	Altered 18	Chann Stream	el-Altered <u>15</u>	Lakes and Reservoirs
Temperature EC (EF)*	30 (86)	ı	32 *(8	9.6)	32 (89.6)
White River	32 (89.	6)			
St. Francis River	32 (89.	6)			
Mississippi River	32 (89.	6)			
Turbidity (NTU)(primary/storm)	45/84		75/250	1	25/45
Arkansas River(primary/storm)	50/52				
Mississippi River(primary/storm)	50/75				
St. Francis River(primary/storm)	75/100				
Minerals	see Re	g. 2.511	see Re	g. 2.511	see Reg. 2.511
Dissolved Oxygen (mg/l)**	<u>Pri</u>	<u>Crit</u>	<u>Pri</u>	<u>Crit.</u>	see Reg. 2.505
<10 mi2 watershed	5	2	5	2	
10 mi2 to 100 mi2	5	3	5	2 3 5	
>100 mi2 watershed	5	5	5	5	
All other standards	(same	as statewide))		

Variations Supported by UAA

Unnamed ditch to Little Lagrue Bayou -from headwaters to confluence with Little Lagrue Bayou, critical season D.O. standard - 3 mg/l (D-3, #1)

Little Lake Bayou - critical season D.O. standard - 2 mg/l (D-5, #2)

Unnamed tributary from Frit Ind. to Coon Creek -sulfates 48 mg/l (D-1, #3)

Rocky Branch Creek and Bayou Meto from Rocky Branch Creek to Bayou Two Prairie -chlorides 64 mg/l (D-3, #4)

Ditch No. 27 - sulfates 480 mg/L; TDS 1,200 mg/L; maximum water temperature 95EF (D-2, #5)

Ditch No. 6 from Ditch No. 27 confluence to its mouth - sulfates 210 mg/L; TDS 630 mg/L (D-2, #6)

Tyronza River from Ditch No. 6 confluence to its mouth - sulfates 60 mg/L - see Reg. 2.511 (D-2, #7)

Increase over natural temperatures may not be more than 2.8EC" (5°F).

^{**} When water temperatures exceed 22EC, the critical season D.O. standard may be depressed by 1 mg/l for no more than 8 hours during a 24-hour period.

QUESTIONNAIRE FOR FILING PROPOSED RULES AND REGULATIONS WITH THE ARKANSAS LEGISLATIVE COUNCIL AND JOINT INTERIM COMMITTEE

DEPARTMENT/AGENCY DIVISION DIVISION DIRECTOR CONTACT PERSON

ADDF PHON	
TO:	Donna K. Davis Subcommittee on Administrative Rules and Regulations Arkansas Legislative Council Bureau of Legislative Research Room 315, State Capitol Little Rock, AR 72201
1.	What is the short title of this rule? Arkansas Pollution Control and Ecology Commission, Regulation No. 2, Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas
2.	What is the subject of the proposed rule? Modification of the Total Dissolved Solids (TDS), sulfate and temperature criteria for Ditch No. 27 (Mississippi County), modification of the TDS and Sulfate criteria for Ditch No. 6 from its confluence with Ditch No. 27 to its mouth (Mississippi County); modification of the sulfate criterion for the Tyronza River from its confluence with Ditch No. 6 to its mouth (Mississippi and Cross County); and removal of the domestic drinking water supply use designation for all of Ditch No. 27 and for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6.
3.	Is this rule required to comply with federal statute or regulations? Yes No X
1 .	Was this rule filed under the emergency provisions of the Administrative Procedure Act? Yes NoX
	If yes, what is the effective date of the emergency rule?
	When does the emergency rule expire?



	Administrative Procedure Act? YesNo
	Is this a new Rule? Yes No X
	If yes, please provide a brief summary explaining the regulation
	Does this repeal an existing rule: YesNoX_ If yes, a copy of the repealed rule is to be included with your completed questionnaire. If it is being replaced with a new rule, please provide a summary of the rule giving an explanation of what the rule does.
5.	Is this an amendment to an existing rule? Yes X No If yes, please attach a mark-up showing the changes in the existing rule and a summary of the substance changes. See Attachments A and B.
6.	Cite the state law that grants the authority for this proposed rule. If codified, please give the Arkansas Code citation. Act 472 of the Acts of Arkansas 1949, as amended. ARK. CODE ANN § 8-4-101, et seq.

Will this emergency rule be promulgated under the permanent provisions of the

7. What is the purpose of the rule? What is it necessary?

Associated Electric Cooperative, Inc.(AECI) has purchased a gas-fired combined cycle electric generating plant in Dell, AR. Construction on the plant was begun in 2002 by TECO Power Systems (TECO), however, TECO halted construction when the facility was approximately 65% complete. TECO planned to construct a 7 mile long pipeline to discharge effluent from the facility to Ditch No. 3 which flows into the Right Hand Chute of the Little River. The Right Hand Chute of the Little River is designated an Ecologically Sensitive Waterbody. AECI wishes to discharge to Ditch No. 27 which begins at the south boundary of the facility. Ditch No. 27 flows approximately 4.3 miles and empties into Ditch No. 6 which flows another approximately 25 miles to the Tyronza River which flows 36 miles to empty into the St. Francis River. Ditch Nos. 27 and 6 (as well as the upper Tyronza River, a/k/a Ditch No. 31) are part of a vast network of regularly maintained, man-made ditches constructed in the early 1900s for the purpose of draining the area to promote and establish agricultural activities.

Facility effluent consists primarily of cooling tower blowdown and will meet Arkansas water quality standards except for TDS, sulfate and temperature. The TDS and sulfate originate in the groundwater which is used to supply water for the facility, however, their concentration in the effluent will increase because of evaporation in the cooling tower. Ambient water temperature in the Ditches (without any Dell Power Plant discharge) naturally exceeds the Arkansas water quality temperature criterion of 89.6° F.

AECI requests the Arkansas Pollution Control and Ecology Control Commission to amend Regulation No. 2 to remove the domestic drinking water supply use designation for Ditch No. 27 and for Ditch No. 6 from its confluence with Ditch No. 27 to its mouth and to modify the dissolved minerals and temperature criteria as follows:

```
Ditch No. 27:

TDS—1,200 mg/L

sulfate—480 mg/L

temperature—95°F

Ditch No. 6 (from its confluence with Ditch No. 27 to its mouth):

TDS—630 mg/L

sulfate—210 mg/L

Tyronza River (from its confluence with Ditch No. 6 to its mouth):

sulfate—60 mg/L
```

These water quality standard modifications will not adversely affect the aquatic life communities and existing fisheries and will allow AECI to discharge into Ditch No. 27 rather than constructing and discharging effluent through a pipeline across farmland into a ditch which empties into an Ecologically Sensitive Waterbody.

8. Will a public hearing be held on this proposed rule? Yes X No If yes, please complete the following:

Date: week of January 30, 2006 Time: to be determined by ADEQ

Place: Blytheville, Arkansas at a location to be determined by ADEQ

9. When does the public comment period expire for permanent promulgation? (Must provide a date.)

The period for receiving all written comments by the public shall conclude ten (10) business days after the date of the public hearing pursuant to Arkansas Pollution Control and Ecology Commission Regulation No. 8, Part 3, Section 2.2.3, unless an extension of time is granted. Thus, the public comment period will expires during the week of February 20, 2006.

- 10. What is the proposed effective date of this proposed rule? (Must provide a date.)

 The regulation becomes effective twenty days after filing of the final regulation as adopted by the Commission with the Secretary of State.
- 11. Do you expect the rule to be controversial? Yes No X If yes, please explain.

12. Please give the names of persons, groups, or organizations that you expect to comment of these rules? Please provide the position (for or against) if known.

For or Neutral:

Arkansas Game and Fish Commission

Arkansas Department of Environmental Quality

Arkansas Department of Health

Arkansas Natural Resources Conservation Commission

Mr. Kenneth Jackson, Mayor of Dell, Arkansas

Mr. Steve McGuire, Mississippi County Judge

US Fish and Wildlife Service

Region VI, US Environmental Protection Agency

Against:

unknown

Stream		Concentration-mg/L	
	<u>C1</u>	<u>SO₄</u> ≛	<u>TDS</u>
Arkansas River Basin		100	500
Arkansas River (Mouth to L&D #7)	250	100	500 ED
Bayou Meto (Rocky Branch to Bayou Two Prairie)	64*	ER	ER
Rocky Branch Creek	64*	ER	ER
Arkansas River (L&D #7 to L&D #10)	250	100	500
Cadron Creek	20	20	100
Arkansas River (L&D #10 to Oklahoma line,	050	100	£00
including Dardanelle Reservoir)	250	120	500
James Fork	20	100	275
Illinois River	20	20	300
Poteau River from Business Hwy 71 to Stateline	120	60 70	500
Unnamed trib at Waldron	150	70	660
White River Basin			
White River (Mouth to Dam #3)	20	60	430
Big Creek	20	30	270
Unnamed trib from Frit Ind.	ER	48*	ER
Cache River	20	30	270
Bayou DeView	20	30	270
Little Red River (including Greers Ferry Reservoir)	20	30	100
Black River	20	30	270
Strawberry River	20	30	270
Spring River	20	30	290
Eleven Point River	20	30	270
Stennitt Creek	ER	ER	456*
South Fork Spring River	20	30	270
Myatt Creek	20	30	270
Current River	20	30	270
White River (Dam #3 to Missouri line, including Bull			
Shoals Reservoir)	20	20	180
Buffalo River	20	20	200
Crooked Creek	20	20	200
White River (Missouri line to headwaters, including	20	20	160
Beaver Reservoir)			
Kings River	20	20	150
West Fork White River	20	20	150
St. Francis River Basin			
St. Francis River (Mouth to 36E N. Lat.)	10	30	330
L'Anguille River	20	30	235
Tyronza River (headwaters to Ditch No. 6 confluence)	20	30	350
Tyronza River (Ditch No. 6 confluence to mouth)	20	60	350
Little River	20	30	365
Pemiscot Bayou	20	30	380
· · · · · · · · · · · · · · · · · · ·	10	20	180
St. Francis River (36E N. Lat. To 36E 30' N. Lat.)	10	20	100
Ouachita River Basin			
Bayou Bartholomew	30	30	220

DESIGNATED USES: DELTA ECOREGION

(Plates D-1, D-2, D-3, D-4)

Extraordinary Resource Waters

Second Creek (D-4)

Cache River above Cache Bayou -adjacent to natural areas (D-3)

Arkansas River below Dam #2 (D-5)

Strawberry River (D-1)

Two Prairie Bayou adjacent to natural areas (D-3)

Natural and Scenic Waterways

None

Ecologically Sensitive Waterbodies

Lower St. Francis River and lower 10 miles of Straight Slough -location of fat pocketbook mussel (D-2, D-4)

Right Hand Chute at confluence with St. Francis River -location of fat pocketbook mussel (D-2)

Departee Creek -location of flat floater mussel (D-l)

Black River at mouth of Spring River -location of pink mucket mussel (D-1)

Channel-altered Delta Ecoregion Streams — These include the majority of the streams in this ecoregion and are characterized by substantial alteration of the morphology of their main-stream channel as well as their tributary streams. Such alteration of the tributaries of these streams significantly affects the water quality and hydrology of the streams and their watersheds. Most of the upper segments of these waters have been dredged and straightened into ditches. Additionally most of the tributaries of these streams have been straightened, ditched and, in some cases, rerouted to quickly move water off the agriculture fields and into the major streams. In the lower segments of these waters, channel realignment is less expansive but most of these channels have been "snagged" to remove any instream obstructions (brush, logs, and other debris) and the stream channel and banks have been dredged to uniform depths and cleared of any obstructions. These include Cache River, Bayou DeView, Village Creek, Blackfish Bayou and others to be determined by the Department on a case by case basis.

Primary Contact Recreation - all streams with watersheds of greater than 10 mi² and all lakes/reservoirs

Secondary Contact Recreation - all waters

Domestic, Industrial and Agricultural Water Supply - all waters

Fisheries

Trout - none

Lakes and Reservoirs - all

Streams

Seasonal Delta fishery – all streams with watersheds of less than 10 mi2 except as otherwise provided in Reg. 2.505

Perennial Delta fishery – all streams with watersheds 10 mi2 or larger and those waters where discharges equal or exceed 1 CFS

Use Variation Supported by UAA

Unnamed ditch to Little Lagrue Bayou -perennial Delta fishery (D-3, #1)

Little Lake Bayou -seasonal Delta fishery; no primary contact (D-5, #2)

Coon Creek and unnamed tributary from Frit Ind. -no domestic water supply use (D-1,#3)

Rocky Branch Creek and Bayou Meto from Rocky Branch Creek to Bayou Two Prairie - no domestic water supply use (D-3 #4)

Ditch No. 27 – no domestic water supply use (D-2, #5)

Ditch No. 6 - no domestic water supply use (D-2, #6)

SPECIFIC STANDARDS: DEL T A ECOREGION (Plates D-J, D-2, D-3, D-4)

	Least-A	Altered 1 <u>8</u>	Chann Strean	el-Altered <u>18</u>	Lakes and Reservoirs
Temperature EC (EF)*	30 (86)	1	32 *(85	9.6)	32 (89.6)
White River	32 (89.				
St. Francis River	32 (89.	6)			
Mississippi River	32 (89.	6)			
Turbidity (NTU)(primary/storm)	45/84		75/250	i	25/45
Arkansas River(primary/storm)	50/52				
Mississippi River(primary/storm)	50/75				
St. Francis River(primary/storm)	75/100				
Minerals	see Reg. 2.511		see Reg. 2.511		see Reg. 2.511
Dissolved Oxygen (mg/l)**	<u>Pri</u>	<u>Crit</u>	<u>Pri</u>	<u>Crit</u> .	see Reg. 2.505
<10 mi2 watershed	5	2	5	2	
10 mi2 to 100 mi2	5	3	5	3	
>100 mi2 watershed	5	5	5	5	
All other standards	(same	as statewide))		

Variations Supported by UAA

Unnamed ditch to Little Lagrue Bayou -from headwaters to confluence with Little Lagrue Bayou, critical season D.O. standard – 3 mg/l (D-3, #1)

Little Lake Bayou - critical season D.O. standard - 2 mg/l (D-5, #2)

Unnamed tributary from Frit Ind. to Coon Creek -sulfates 48 mg/l (D-1, #3)

Rocky Branch Creek and Bayou Meto from Rocky Branch Creek to Bayou Two Prairie -chlorides 64 mg/l (D-3, #4)

Ditch No. 27 - sulfates 480 mg/L; TDS 1,200 mg/L; maximum water temperature 95EF (D-2, #5)

Ditch No. 6 from Ditch No. 27 confluence to its mouth - sulfates 210 mg/L; TDS 630 mg/L (D-2, #6)

Tyronza River from Ditch No. 6 confluence to its mouth - sulfates 60 mg/L - see Reg. 2.511 (D-2, #7)

Increase over natural temperatures may not be more than 2.8EC" (5°F).

^{**} When water temperatures exceed 22EC, the critical season D.O. standard may be depressed by 1 mg/l for no more than 8 hours during a 24-hour period.

EXECUTIVE SUMMARY

Associated Electric Cooperative, Inc. (AECI) is requesting a modification of the Arkansas Water Quality Standards (WQS) set forth in Regulation No. 2 of the Arkansas Pollution Control and Ecology Commission. AECI requests: (a) a modification of the sulfate, total dissolved solids (TDS) and temperature criteria for Ditch No. 27; (b) modification of the TDS and sulfate criteria for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6; (c) a modification of the sulfate criterion for the Tyronza River from its confluence with Ditch No. 6 to its mouth; and (d) removal of the domestic drinking water supply use designation for the Ditch No. 27 and for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6. The specific amendment to Regulation No. 2 requested by AECI are set forth more fully below.

In 2002 TECO Power Systems (TECO) began construction on a gas fired combined cycle electric generating plant in Dell, Arkansas (the Dell Power Plant). TECO halted construction of the facility when it was approximately 65% complete. ADEQ issued NPDES Permit No. AR0049425 to TECO based on TECO's application which included a proposal to construct a seven (7) mile pipeline for discharging plant 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. AECI has purchased the facility and is in the process of completing construction.

As a more environmentally acceptable and less costly alternative to piping the discharge to Ditch No. 3 which flows to an Ecologically Sensitive Waterbody, AECI wishes to discharge to Ditch No. 27 which originates at the southern property boundary of the Dell Power Plant. Ditch No. 27 flows south for approximately 4.3 miles and empties into Ditch No. 6. Ditch No. 6 is a large drainage ditch with a watershed of approximately 55 mi² (at its confluence with Ditch No. 27) which flows approximately 25 miles southwest to the Tyronza River which in turn flows another 36 miles prior to emptying into the St. Frances River just upstream of Parkin, Arkansas.

The ditches are part of a vast network of regularly maintained, man-made ditches constructed in the early 1900s in Mississippi County for the purpose of draining the area to promote and establish agricultural activities. Ditch No. 27 and the reach of Ditch No. 6 under consideration have a domestic drinking water supply use designation which was assigned by default and is neither existing nor attainable.

Groundwater from the Wilcox Aquifer will be used to supply water for the power plant. 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). The sulfate and TDS in the plant effluent originate from the groundwater supply; but their 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.

Pursuant to Section 2.306 of Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 2, Section 3.4 of APCEC Regulation No. 8 and the Continuing Planning Process, AECI is requesting the following modifications to 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 27/Ditch 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 confluence with Ditch 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, and for Ditch No. 6 from the confluence of Ditch No. 27/Ditch No. 6 to the mouth of Ditch No. 6.

This request is supported by the following:

- Based upon the performance specifications of the Dell Power Plant cooling tower, the effluent temperature is not expected to exceed 95° F and the historical 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;
- The requested 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;
- Chronic toxicity testing of simulated Dell Power Plant effluent showed no lethal or sub-lethal toxicity;

- The discharge effluent 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 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;
- 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.

FINANCIAL IMPACT STATEMENT

[PLEASE ANSWER ALL QUESTIONS COMPLETELY]

Department: Arkansas Department of Environmental Quality

Division: Water Division

Associated E Telephone N	pleting this Statement: Marc lectric Cooperative, Inc. 10.: 501-688-8851 Facsimile lor@mwsgw.com	No.: 501-918-7851
To comply w two copies w	ith Act 1104 of 1995, please coith the questionnaire and propo	omplete the following Financial Impact Statement and file sed rules.
No. 2, Regulato modify the modify the T portion of the	ation Establishing Water Quali e Total Dissolved Solids (TD: DS and sulfate criteria for a po	ge to Arkansas Pollution Control and Ecology Regulation ty Standards for Surface Waters of the State of Arkansas, S), sulfate and temperature criteria for Ditch No. 27, to ortion of Ditch No. 6, to modify the sulfate criterion for a e the domestic drinking water supply use designation for Mississippi County).
1.	Does this proposed, amended Yes NoX	or repealed rule or regulation have a financial impact?
2.	If you believe that the develo to be cost prohibited, please e	pment of a financial impact statement is so speculative as explain.
3.	If the purpose of this rule or please give the incremental the cost provided is the cost of	regulation is to implement a federal rule or regulation, cost for implementing the regulation. Please indicate if f the program.
	Current Fiscal Year General Revenue Federal Funds Cash Funds Special Revenue Other (Identify) Total 0	Next Fiscal Year General Revenue Federal Funds Cash Funds Special Revenue Other (Identify) Total 0
4.	What is the total estimated of amended, or repealed rule or regulation, and explain how the	ost by fiscal year to any party subject to the proposed, regulation? Identify the party subject to the proposed ney are affected.
	S	Next Fiscal Year \$0
		G

Associated Electric Cooperative, Inc. (AECI) is seeking to amend Arkansas Pollution Control and Ecology Regulation No. 2, Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas, to modify the Total Dissolved Solids (TDS), sulfate and temperature criteria for Ditch No. 27, to modify the TDS and sulfate criteria for a portion of Ditch No. 6, to modify the sulfate criterion for a portion of the Tyronza River, and to remove the domestic drinking water supply use designation for Ditch No. 27 and a portion of Ditch No. 6. This modification of Regulation No. 2 will allow AECI to discharge directly to Ditch No. 27 rather than constructing and discharging effluent through a 7-mile pipeline across farmland into a ditch which then discharges to an Ecologically Sensitive Waterbody (Right Hand Chute of the Little River).

5. What is the total estimated cost by fiscal year to the agency to implement this regulation?

Current Fiscal Year \$ 0 Next Fiscal Year

0

ECONOMIC IMPACT/ENVIRONMENTAL BENEFIT ANALYSIS

Answer to best of the proponent's ability, as required by APC&EC Regulation 8, Chapter 3.5

STEP 1: DETERMINATION OF ANALYSIS REQUIREMENT (to be included in petition to initiate rulemaking)

1A. Is the proposal expressly addressed by a Federal requirement? **NO**

Yes. See 1B.

No. Economic Impact/Environmental Benefit Analysis is not required.

1B. If 1A is YES, is proposed regulation equivalent, or more stringent, or less stringent than federal requirement?

- If equivalent Economic Impact/Environmental Benefit Analysis is not required.
- If more stringent Economic Impact/Environmental Benefit Analysis is required.

If less stringent – Economic Impact/Environmental Benefit Analysis is not required, but does require federal agency approval prior to adoption if the [proposal is part of an authorized state program.

STEP 2: THE ANALYSIS (to be included in petition to initiate rulemaking, if required)

2A. ECONOMIC IMPACT

- 1. Who will be affected economically by this proposed rule, what are the costs associated with this rule, and who will ear the costs of this proposed rule? Define specific public and/or private entities.
- 2. What are the economic benefits associated with the proposed rule, who will benefit from this proposed rule and how?
- 3. List sources of information used to determine economic impacts to public and/or private entities.
- 4. List any fee changes imposed by this proposal, and justification for each.
- 5. What is the probable cost to ADEQ in manpower and associated resources to implement and enforce this proposed change, and what is the source of revenue supporting this proposed rule?

EXHIBIT

6.	Is there a benefit or adverse impact to any other state agency to implement or enforce this proposed rule?
7. of thi	Are there any less costly, non-regulatory, or less intrusive methods that would achieve the same purpose s proposed rule?
	2B. ENVIRONMENTAL BENEFIT
1.	What issues affecting the environment are addressed by this proposal?
2. all Aı	How does this proposed rule protect, enhance, or restore the natural environment for the well being of kansas?
3. propo	What detrimental effect will there be to the environment or to the public health and safety if this seed rule is not implemented?
4.	What risks are addressed by the proposal and to what extent are the risks anticipated to be reduced?

SUBJECT-Regulation No. 2
Water Quality Standards
Third-Party Rulemaking
ASSOCIATED ELECTRIC COOPERATIVE, INC.
DELL POWER PLANT
Dell, AR

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On November 10, 2005, Associated Electric Cooperative, Inc. ("AECI") filed a Petition to Initiate Third Party Rulemaking to Amend Regulation No. 2, Water Quality Standards ("Petition"). Pursuant to Ark. Code Ann. § 8-4-202(c), the Arkansas Pollution Control and Ecology Commission ("Commission") has sixty (60) days in which to either institute rulemaking proceedings or to give written notice denying the petition for rulemaking.

The Commission's Regulations Committee met on December 9, 2005 to review AECI's Petition. Having considered the Petition, the Regulations Committee recommends the Commission institute a rulemaking proceeding to consider adopting the proposed revision to Regulation No. 2. The Regulations Committee also proposes adoption of the following procedural schedule so consideration of this matter may proceed in an efficient and orderly manner.

- 1. AECI and the Arkansas Department of Environmental Quality ("ADEQ") shall file an original and twenty-five (25) copies of all materials required under this Minute Order. Each party shall serve the other with the materials filed. This requirement does not apply to transcripts.
- 2. Persons submitting written public comments shall submit their written comments to the ADEQ. Within ten (10) business days following the adoption or denial of the proposed rule, the ADEQ shall deliver the originals of all comments to the Commission Secretary.
- 3. AECI has filed with the Petition a black-lined version of the section of Regulation No. 2 which will be amended by the proposed rule.
 - 4. AECI has submitted to the ADEQ's public affairs office, the following:
 - a. A proposed public notice to be used in mailing notice to interested persons, for publishing in appropriate industry, trade, or professional publications as the Commission may select. The proposed public notice may, in the ADEQ's discretion, be approved for use or the ADEQ may choose to prepare its own public notice. The public notice shall conform to the requirements of Regulation No. 8, Section 3.1.3. The public notice shall be published not later than 45 days prior to the public hearing. By agreement, AECI shall pay the costs of the newspaper publications



SUBJECT-Regulation No. 2
Water Quality Standards
Third-Party Rulemaking
ASSOCIATED ELECTRIC COOPERATIVE, INC.
DELL POWER PLANT
Dell, AR

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and the costs of the appropriate industry, trade, or professional publications chosen by the Commission. AECI shall file only the original proof of publication with the Commission. The ADEQ shall be responsible for mailing the public notice to all persons who have requested advance notice of rulemaking proceedings and the cost of the mailing.

- b. Sixty-five (65) copies of the executive summary of the proposed rulemaking.
- c. Eight (8) bound copies of the Petition and all supporting documentation.
- 5. A public hearing or hearings shall be conducted the week of January 30, 2006 in Mississippi County, Arkansas. The exact date, time and location of the public hearing will be determined by the ADEQ's Public Affairs office.
- 6. The period for receiving all written comments by the public, AECI and the ADEQ shall conclude ten (10) business days after the date of the public hearing pursuant to Regulation No. 8, Part 3, Section 2.2.3, unless an extension of time is granted.
- 7. AECI and the ADEQ shall each file, not later than March 3, 2006 a Statement of Basis and Responsiveness Summary as required by Regulation No. 8, Part 3, Section 3.6.2(1), (2) and (3).
- 8. AECI and the ADEQ shall each file not later than March 3, 2006 a proposed Minute Order deciding the matter.
- 9. The ADEQ shall seek review of the proposed rule from the Joint Interim Committee on Public Health and Welfare and/or from the Joint Interim Committee on Administrative Rules and Regulations.
- 10. The Regulations Committee will consider this matter at its April, 2006 meeting. Members of the Regulations Committee may ask questions of any persons that made oral or written comments. The Regulations Committee will make a recommendation to the Commission.

SUBJECT-Regulation No. 2
Water Quality Standards
Third-Party Rulemaking
ASSOCIATED ELECTRIC COOPERATIVE, INC.
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- 11. At the Commission's regularly scheduled April, 2006 meeting, the presentation of oral statements and legal arguments will be regulated as follows:
 - a. The Chair of the Commission will permit members of the public to make a statement to the Commission. No more than three (3) minutes will be allowed for each statement. The period for statements will close at the end of one (1) hour, or sooner if all interested persons have completed their statements. At the discretion of the Chair, the one (1) hour oral statement period may be extended.
 - b. At the discretion of the Chair, an attorney representing one of more individuals, a corporation or other legal entity may be permitted five (5) minutes in which to address the Commission.
 - c. Legal counsel or other designated persons representing AECI and the ADEQ shall be permitted ten (10) minutes in which to address the Commission.
 - d. At the conclusion of all statements, the Chair will call on each Commissioner for the purpose of asking the attorneys or persons sponsoring statements who are present, any questions they may have. Attorneys will not be permitted to respond or ask follow-up questions of any person questioned by a Commissioner.

After each Commissioner has had an opportunity to ask questions, the Chair will entertain a motion on the matter, allow discussion, and call for a vote of the Commission members.

12. If AECI desires a transcript of the public hearing, Regulations Committee meeting, and Commission meetings, or if required by the Commission, AECI agrees to pay all costs for the preparation of a transcript of the public hearing, Regulations Committee meetings and Commission meetings which concern this docket and occur after the adoption of this Minute Order. If transcript of the rulemaking proceedings is required, the court reporter will be

SUBMITTED BY: Marcella Taylor

SUBJECT-Regulation No. 2
Water Quality Standards
Third-Party Rulemaking
ASSOCIATED ELECTRIC COOPERATIVE, INC.
DELL POWER PLANT
Dell, AR

DATE PASSED: ____/05

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eliver the original transcript to the Commission	
Chair of the Regulations Committee, in o revise the procedures and schedules set out	
that the Commission determine whether a the information contained in the Petition and the Commission finds the proposed amendment es. Therefore, the Commission concludes that are not applicable to the proposed amendment	
ion of the Regulations Committee and initiates Commission adopts, without modification, the	
T. Schueck J. Shannon L. Sickel W. Thompson B. White R. Young	