

EXHIBIT E

ECONOMIC IMPACT/ ENVIRONMENTAL BENEFIT ANALYSIS

**ARKANSAS POLLUTION CONTROL & ECOLOGY COMMISSION
ECONOMIC IMPACT/ENVIRONMENTAL BENEFIT ANALYSIS**

Rule Number & Title: APCEC Regulation No. 2; Regulation Establishing Water Quality Standards for Surface Water of the State of Arkansas

Petitioner: Southwestern Electric Power Company, John W. Turk, Jr. Power Plant

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Analysis Prepared by: Marcella Taylor, counsel for Southwestern Electric Power Company

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2A. ECONOMIC IMPACT

1. Who will be affected economically by this proposed rule? State: a) the specific public and/or private entities affected by this rulemaking, indicating for each category if it is a positive or negative economic effect; and b) provide the estimated number of entities affected by this proposed rule.

Only Southwestern Electric Power Company, John W. Turk, Jr. Power Plant is affected by this proposed rule. The effect on the facility is positive.

Sources and Assumptions: *Southwestern Electric Power Company Use Attainability Analysis for Dissolved Minerals in Little and Red Rivers Hempstead & Little River Counties, Arkansas* as Exhibit F to the Petition to Initiate Third-Party Rulemaking and *Southwestern Electric Power Company Technical Justification for a Site-Specific Temperature Criterion in the Little River Hempstead & Little River Counties, Arkansas* attached as Exhibit G to the Petition to Initiate Third-Party Rulemaking.

2. What are the economic effects of the proposed rule? State: The estimated increased or decreased cost for an average facility to implement the proposed rule; and 2) the estimated total cost to implement the rule.

There are no economic effects of the proposed rule. Adoption of proposed rule will allow the facility to operate as designed in compliance with its NPDES Permit through the site-specific modification of the total dissolved solids and temperature criteria for the affected segments of the Little and Red Rivers to levels that reflect current and historic water quality conditions, naturally occurring conditions and are appropriate for the operation of the facility.

3. List any fee changes imposed by this proposal and justification for each.

None

4. 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.

None

5. Is there a known beneficial or adverse impact to any other relevant state agency to implement or enforce this proposed rule? Is there any other relevant state agency's rule that could adequately address this issue, or is this proposed rulemaking in conflict with or have any nexus to any other relevant state agency's rule? Identify the state agency and/or rule.

There is no known impact to another state agency nor is there another state agency's rule that could address the proposed change to APCEC Regulation No. 2. This rulemaking is not in conflict with, nor does it have a nexus to, any other relevant state agency's rule.

6. Are there any less costly, non-regulatory, or less intrusive methods that would achieve the same purpose of this proposed rule?

No

2B. ENVIRONMENTAL BENEFIT

1. What issues affecting the environment are addressed by this proposal?

There are currently no known technologically and economically feasible treatments capable of reducing the total dissolved solids concentration to levels that meet the current water quality criteria. This rule will prevent the impairment listing of the Little River between Millwood Lake and the Red River, eliminate the spatial inconsistency in the TDS criterion for the Arkansas segment of the Red River, and preserve the aquatic life, agricultural water supply, industrial water supply, and primary and secondary recreational contact designated uses of the segments of the Little and Red Rivers.

2. How does this proposed rule protect, enhance, or restore the natural environment for the well being of all Arkansas?

The Use Attainability Analysis supporting Southwestern Electric Power Company's requested site-specific modifications established that the requested changes will be protective of, and have no adverse effect on, the aquatic life communities in the affected streams. Toxicity testing showed no anticipated lethal or sub-lethal toxicity.

Sources and Assumptions: *Southwestern Electric Power Company Use Attainability Analysis for Dissolved Minerals in Little and Red Rivers Hempstead & Little River Counties, Arkansas* as Exhibit F to the Petition to Initiate Third-Party Rulemaking and *Southwestern Electric Power Company Technical Justification for a Site-Specific Temperature Criterion in the Little River Hempstead & Little River Counties, Arkansas* attached as Exhibit G to the Petition to Initiate Third-Party Rulemaking.

3. What detrimental effect will there be to the environment or to the public health and safety if this proposed rule is not implemented?

All other available treatment technologies for the removal of total dissolved solids are either economically infeasible, provide no significantly increased environmental protection, and would involve an initial capital investment of between \$5.1 million to \$6.9 million, and the annual operating and disposal costs from \$2.66 million to \$3.92 million.

Sources and Assumptions: *Southwestern Electric Power Company Use Attainability Analysis for Dissolved Minerals in Little and Red Rivers Hempstead & Little River Counties, Arkansas* as Exhibit F to the Petition to Initiate Third-Party Rulemaking and *Southwestern Electric Power Company Technical Justification for a Site-Specific Temperature Criterion in the Little River Hempstead & Little River Counties, Arkansas* attached as Exhibit G to the Petition to Initiate Third-Party Rulemaking.

4. What risks are addressed by the proposal and to what extent are the risks anticipated to be reduced?

The risks addressed by this proposal are the risk of an impairment listing for the Little River between Millwood Lake and the Red River, the continued impairment listing for the Red River, the continued protection of the Gulf Coastal Plains fishery, agricultural and industrial water supply, and primary/secondary contact recreational use designation of the affected stream segments and the economic risk to the Southwestern Electric Power Company should the total dissolved mineral and temperature criteria not be modified. Under this proposal the risks are substantially eliminated.