

**BEFORE THE ARKANSAS POLLUTION CONTROL
AND ECOLOGY COMMISSION**

IN RE: REQUEST BY THE SOUTHWESTERN)
ELECTRIC POWER COMPANY)
TO INITIATE RULEMAKING TO) DOCKET NO. 14-007-R
AMEND REGULATION NO. 2)

**SOUTHWESTERN ELECTRIC POWER COMPANY'S
RESPONSE TO COMMENTS**

Southwestern Electric Power Company ("SWEPCO") for its Response to Comments states:

1. On January 27, 2017, the Arkansas Pollution Control and Ecology Commission ("APCEC") granted SWEPCO's Petition To Reopen the Docket to Amend Regulation No. 2. A public hearing was held on March 20, 2017 in Hope, Arkansas. The public comment period ended on March 30, 2017. No comments were submitted at the public hearing. Two written public comments were submitted.

2. The comments and SWEPCO's Response to each is as follows:

Comment 1: One commenter stated "Please to [sic] not increase pollution for the Turk Power Plant."

Response 1: SWEPCO's request to amend Arkansas Pollution Control and Ecology Commission Regulation No. 2 does not propose to increase any pollution. Rather it seeks to revise the total dissolved solids (TDS) water quality standard for the Red River from the mouth of the Little River to the Arkansas/Louisiana state line. This revision will make the standard correspond more closely to the historic concentrations of TDS that have been measured in the river for decades. These concentrations are due largely to naturally occurring salt springs and seeps upstream in Texas and Oklahoma.

Comment 2: One commenter made several comments as set forth below:

2a: "I respectfully oppose increasing wastewater emissions from 500 mg/L to 780 mg/L. This is 56 percent higher than the current emissions of calcium, magnesium, chloride and silica in the Little Red River."

Response 2a: This requested modification of the TDS water quality standard has nothing to do with the Little Red River. The modification involves the Red River. The modification does not propose an increase in “wastewater emissions”. Instead, the modification will set the water quality standard for TDS to match the instream concentrations actually measured in the river for decades. There is no 56% increase in effluent requested by this Rulemaking. SWEPCO’s permitted discharge contains TDS less than 0.16% of the average load in the Red River. SWEPCO adds minimal TDS to the River. The water is simply withdrawn from the River and used for evaporative non-contact cooling purposes. The amount of minerals that are taken in from the river go back out when the cooling water is discharged.

SWEPCO’s request is to set the instream TDS water quality standard at 780 mg/L in a portion of the Red River from the mouth of the Little River to the Arkansas/Louisiana state line. Although the Arkansas TDS water quality standard had been set at 500 mg/l, the TDS in the river has, for decades, exceeded 500 mg/L because it contains elevated levels of TDS caused primarily by input from natural salt springs and seeps in Oklahoma and Texas.¹ On October 23, 2015, the Commission approved an increase in the TDS standard from 500 mg/L to 860 mg/L. After discussions with ADEQ and SWEPCO’s consultants, and submission of supplemental aquatic life supporting data, EPA agreed that an increase in the TDS standard was supported by the record, but EPA asked that the increase be reduced from 860 mg/L to 780 mg/L to match the 780 mg/L TDS standard that had been in place for many years in Louisiana.

2b: “This is a major increase of toxic pollution. SWEPCO is requesting an additional 656 kilograms per day of calcium, magnesium, chloride, and silica, into the Little Red River.”

Response 2b: TDS is not considered by EPA, or the relevant state agencies, to be a toxic pollutant or hazardous substance. Although toxicologists consider every chemical to have toxicity at some level, TDS has been demonstrated to be not toxic at the ambient concentrations involved in this proceeding. The Use Attainability Analysis Study (UAA) supporting the water quality standard request for the Red River (again, not the Little Red River) verified that there are no negative effects on aquatic life due to the TDS concentrations requested by SWEPCO. The commenter’s assertion that the modification of the water quality standard would increase TDS in the river by an additional 656 kilograms per day is based on an invalid calculation, i.e. multiplying an effluent flow rate (1,628 liters/minute) times the 280 mg/L change in the water quality standard that SWEPCO has requested. The calculation is invalid because a flow rate for SWEPCO’s effluent is being multiplied by a concentration that applies to the river, not the effluent. SWEPCO adds minimal TDS to the River (see below, Response 2c). The water is simply withdrawn from the River and used for evaporative non-contact cooling purposes. The amount of minerals that are taken in from the river go back out when the cooling water is discharged.

¹ The states of Texas, Oklahoma, Arkansas and Louisiana each have established TDS criterion for the river. As it enters Arkansas, the Red River has a Texas TDS criterion of 1,100 mg/L and an Oklahoma TDS criterion of 1,220 mg/L. The TDS criterion for the Red River in Louisiana is 780 mg/L.

2c: “Why now? SWEPCO says the increase is to meet design specifications for the Turk plant. The Turk plant has been running with 500 mg/L for several years. If the design specifications called for additional waste water emissions, why was this not requested when the plant was proposed?”

Response 2c: When the original discharge permit was issued, the Arkansas Department of Environmental Quality (ADEQ) could not allow the permit limit for TDS to exceed 500 mg/L because the water quality standard for the Red River immediately downstream of the Little River is 500 mg/L and that reach of the Red River was considered to be impaired on the 2008 303(d) list. To address this situation, SWEPCO initiated the process of revising the water quality standard. Limiting SWEPCO’s discharge to 500 mg/L for TDS has resulted in increased use of water for cooling purposes and has caused the facility to operate at less than maximum efficiency ever since it began operating. The facility was designed to achieve its optimum efficiency by recycling the cooling water in the cooling tower multiple times. Each time (cycle) that water is recycled in the cooling tower it results in a net decrease of the volume of water discharged as blowdown and an increase in the TDS concentration in the blowdown discharge. Increased cycling in the cooling tower also results in more efficient use of chemical additives (some may be decreased in concentration and/or feed rate), such that the net discharge loading for TDS (net TDS released in lbs/day) may actually decrease as the cycling of the cooling water in the cooling tower is increased.

2d: “Increasing to ‘match’ is a flawed argument. Would SWEPCO agree to lower emission, say 350 mg/L, if Louisiana’s standard were 350 mg/L? Louisiana has a higher standard because it is downstream from the Turk plant.”

Response 2d: SWEPCO’s reason for proposing to modify the TDS water quality standard for TDS in the Red River is not to match Louisiana’s standard, but to set the standard to a more appropriate value that includes the effects of naturally occurring loads coming into Arkansas from Oklahoma and Texas. SWEPCO’s request is not “increasing to match”; it is actually seeking a decrease in the Commission approved TDS standard of 860 mg/L to 780 mg/L which is the same as the Louisiana TDS standard. Additionally, Louisiana’s standard is not higher because of the Turk plant; Louisiana’s standard for TDS in the Red River has been 780 mg/L since at least 1999, long before the Turk plant was built.

2e: “Louisiana waterways have the worst pollution. SWEPCO is asking for an addition 656 kilograms per day of calcium, magnesium, chloride, and silica, into the Little Red River.” The commenter cited a 2014 report release by the Environment America Research and Policy Center to state that Louisiana’s waterways are among the most polluted in the nation, with industrial facilities releasing more than 12.6 million pounds of toxic chemicals into rivers, bayous and other waters in 2012.

Response 2e: As noted in Response 2b above, the value of 656 kg/day is the result of an invalid calculation. This Rulemaking concerns TDS water quality standard in the Red River (again, not the Little Red River) in Arkansas. Toxic chemicals in Louisiana waterways are outside the scope of this Rulemaking, and the June 2014 report referenced in the comment cites

figures from EPA's Toxic Release Inventory, which does not include TDS because it is not considered by EPA (or state regulatory agencies) to be a toxic chemical. The UAA Study supporting the water quality standard request for the Red River verified that there are no negative effects on aquatic life due to the TDS water quality standard requested by SWEPCO.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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