


*Arkansas* POLLUTION CONTROL COMMISSION

DEDICATED TO CLEAN AIR AND WATER

1100 HARRINGTON / LITTLE ROCK, ARKANSAS 72202



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October 6, 1967

Office of Secretary of State  
State of Arkansas  
State Capitol  
Little Rock, Arkansas

Gentlemen:

There is filed herewith a certified copy of Regulation No. 2 of the Arkansas Pollution Control Commission, as provided by Act 183 of 1953.

Please acknowledge receipt on the duplicate copy of this letter and return same to the undersigned.

Very truly yours,

  
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S. L. Davies, Director

SID:sw

STATE OF ARKANSAS

ARKANSAS POLLUTION CONTROL COMMISSION

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REGULATION NO. 2

REGULATION ESTABLISHING WATER QUALITY  
CRITERIA FOR INTERSTATE STREAMS

I. AUTHORITY, GENERAL PRINCIPLES, AND COVERAGE

1. Pursuant to the provisions of Section 3 of the Arkansas Water and Air Pollution Control Act (Act 472 of the Acts of Arkansas for 1949, as amended; Ark. Stats., Sec. 82-1904), and in compliance with the requirements of the Federal Water Quality Act of 1965 (Public Law 89-234, 33 U. S. C. A. 466g), the Arkansas Pollution Control Commission hereby promulgates this Regulation No. 2 establishing water quality criteria for interstate streams within the State of Arkansas.

2. The water quality criteria herein set forth are based upon present, future and potential uses of the waters to which they apply and a statistical evaluation of past water quality conditions. The criteria are designed to enhance the quality, value, and beneficial uses of the water resources of the State of Arkansas and to aid in the prevention, control, and abatement of water pollution. In establishing these criteria, the Arkansas Pollution Control Commission has taken into consideration the use and value of the streams for public water supplies, commercial, industrial, agricultural, and other beneficial uses, recreational purposes, and propagation of fish and wildlife, and the view expressed at public hearings. The State of Arkansas has an exceptionally large volume of high quality water. With few exceptions, the streams of Arkansas contain waters of a quality suitable for all legitimate uses without the necessity of unreasonable water treatment. Where man-made pollution exists, substantial progress has been and is

being made in abatement. It is the purpose of these criteria to preserve and enhance the quality of this water so that it shall be reasonably available for all beneficial uses and thus promote the social welfare and economic well-being of the people of the State. The criteria, therefore, are applicable to all interstate waters within the State.

3. The water quality criteria herein contained shall not be construed as permitting any waste amenable to treatment or control to be discharged into any waters of the State of Arkansas without reasonable treatment or control. The Arkansas Water and Air Pollution Control Act provides, among other things, that it shall be unlawful for any person to discharge any waste into any waters of the State without having first obtained a written permit from the Commission. A disposal permit may not be issued unless there is submitted to the Commission plans and specifications for a disposal system adequate to treat or control the wastes so as not to cause water pollution as defined in the Act. Such treatment or control must be consistent with the state of the art and best practicable industry standards, the minimum requirement being secondary treatment or equivalent, giving due regard to the quality and flow of the receiving waters, the present, future and potential uses of such waters, economic feasibility, and other relevant factors.

4. This Regulation No. 2 shall apply to the following interstate streams:

Lower White Basin

White River (Newport to Mississippi River  
and Cache River.

Upper White, Neosho, Grand Basins

Illinois River, Spavinaw Creek, Barren Fork,  
Elk River, White River (above Newport), Black River,  
Current River, Eleven Point River, Spring River,  
English Creek, and King's River.

Arkansas, Lower Mississippi Basins

Arkansas River, Poteau River, and Mississippi River from mouth of White River to Louisiana Line inclusive.

Upper Ouachita Basin

Upper Ouachita River down to and including mouth of Little Missouri River.

Red River Basin

Little River, Dorcheat Bayou, Bodcaw Creek, Kelly Bayou, McKinney Bayou, Sulphur River, and Red River.

Lower Ouachita Basin

Bayou Macon, Boeuf River, Bayou Bartholomew, Overflow Creek, Chemin-a-Haut Creek, Ouachita River (Mouth of Little Missouri to Louisiana Line), Bayou Loutre, Little Cornie Bayou, Three Creeks, Cornie Bayou, and Big Cornie Creek.

St. Francis and Upper Mississippi Basins

Pemiscot Bayou, Buffalo Creek, St. Francis River and Mississippi River (Missouri Line to Mouth of White River).

5. The discharge of wastes into such interstate waters or portions thereof, which reduces the quality of such waters below the water quality criteria established by this regulation (whether the matter causing or contributing to such reduction is discharged directly into such waters or reaches such waters after discharge into tributaries of such waters) is subject to the abatement and enforcement provisions of the Arkansas Water and Air Pollution Control Act.

6. The water quality criteria herein established will be periodically reviewed by the Commission and revisions may be made to take into account changing technology of waste production, treatment, and removal, advances in knowledge of water quality requirements, and other relevant factors.

## II. General Criteria

1. Methods - The methods of sample collection, preservation, measurements and analyses shall be in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater" or other proven methods acceptable to the Commission.
2. Location - The effects of wastes on the receiving stream shall be determined after the wastes have been thoroughly mixed with the stream water, but consideration may also be given to the quality of the waste effluent in determining the adequacy of treatment.
3. Ephemeral Streams - Where there are streams with intermittent flow, the treatment of waste discharged thereto shall be no less than conventional secondary or equivalent if reasonably required to protect present and projected future downstream uses.
4. Stream Flows - These criteria are based upon the assumption that existing flow conditions in interstate streams shall continue without material change. The minimum weekly flow that occurs on the average once in 10 years will be used in applying these criteria.
5. The quality of streams tributary to the interstate streams shall be controlled so that the quality of the interstate streams will not be lowered beyond the criteria set herein.

## III. Specific Criteria

1. Temperature - The maximum temperature shall not be elevated above 20° Centigrade in trout streams, 30° Centigrade in smallmouth bass streams, and 35° Centigrade in other streams. The temperature of a stream as determined by natural conditions shall not be increased or decreased more than 5° Fahrenheit by discharges thereto.
2. Color - True color shall not be increased to the extent that it will interfere with present usage and projected future use of the streams.

3. Turbidity - There shall be no distinctly visible increase in turbidity due to waste discharges to the stream.
4. Taste and Odor - Taste and odor producing substances shall be limited to concentrations in the stream that will not interfere with the production of potable water by reasonable water treatment processes, or impart unpalatable flavor to food fish, or result in offensive odors arising from the stream, or otherwise interfere with the reasonable use of the water.
5. Solids, Floating Material, and Deposits - The stream shall have no distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slimes, bottom deposits or sludge banks, attributable to waste discharges.
6. Oil and Grease - The stream shall be essentially free of the relatively nonvolatile liquid components that contribute to the formation of oil films, deposits and emulsions.
7. pH - The pH of water in the stream must not fluctuate in excess of 1.0 pH unit, within the range of 6.0 - 9.0, over a period of 24 hours. The pH shall not be below 6.0 or above 9.0 due to wastes discharged to the receiving stream.
8. The dissolved oxygen in the stream shall not be less than 4 ppm, and this shall be the critical deficit point of the dissolved oxygen profile. The only exception will be when periodic lower values are of natural origin and therefore beyond control of the water user. For trout stream waters the minimum dissolved oxygen content shall not be less than 5.0 mg/l. The dissolved oxygen sample shall be taken at mid-depth and the middle of the stream on the smaller streams and rivers. On the larger rivers the dissolved oxygen shall be determined by the average of concentrations in samples collected at quarter points across the river, and at two-tenths and eight-tenths of the depth at each point.

9. Radioactivity - The Rules and Regulations for the Control of Sources of Ionizing Radiation, of the Division of Radiological Health, Arkansas State Board of Health, shall apply as to the limits established for radiation levels in uncontrolled areas.

10. Bacteria - The Arkansas State Board of Health has the responsibility of approving or disapproving surface waters for swimming and drinking water supply, and it has issued rules and regulations pertaining to such uses.

For purposes of this Regulation, the coliform group shall not exceed 1,000/100 milliliters as a monthly average value (either Most Probable Number or membrane filter count) for waters substantially used for body contact aquatic sports; nor exceed this number in more than twenty per cent of samples examined during any one month; nor exceed 2,400/100 milliliters on any day except during periods of storm water runoff; provided, however, that no fecal contamination is known to be present. In other waters, the coliform bacteria group shall not exceed 5,000/100 milliliters as a monthly average value (either Most Probable Number or membrane filter count); nor exceed this number in more than twenty per cent of the samples examined during any month; nor exceed 20,000/100 milliliters in more than 5% of such samples. Arithmetic averages will be used.

11. Toxic Substances - Toxic materials, organic or inorganic, shall not be present in such quantities as to cause the waters to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation of aquatic life. For aquatic life and using bio-assay techniques, the level of toxic materials in the stream shall not exceed one-tenth (0.1) of the forty-eight (48) hour Median Tolerance Limit.

12. Mineral Quality - Waste discharges shall not affect existing mineral quality so as to interfere with other beneficial uses. Recognizing that the present water quality of

the Arkansas and Red Rivers is less than desirable from natural as well as manmade sources, additional mineral discharges will be limited with the intent of improving the quality as plans for removing major natural salt sources are implemented. In the Lower Ouachita River Basin it is recognized that water quality is low due primarily to manmade sources, but constantly improving under existing controls. Numerical mineral criteria will be set and implemented within the next five years as existing quality and results of the present controls are evaluated.

Promulgated the 26th day of May, 1967 (as amended September 29, 1967).

BY ORDER OF THE ARKANSAS POLLUTION CONTROL COMMISSION

By Richard M. Ward  
Chairman

Attest:

S. L. Davies  
S. L. Davies, Director

I hereby certify that the foregoing is a true and correct copy of Regulation No. 2, as amended September 29, 1967.

S. L. Davies  
S. L. Davies, Director  
ARKANSAS POLLUTION CONTROL COMMISSION

Subscribed and sworn to before me this 6 day of October, 1967.

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Notary Public

My Commission Expires April 4, 1970.