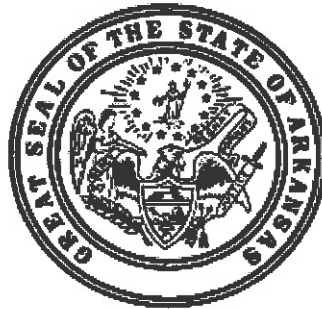


ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION



REGULATION NO. 2

REGULATION ESTABLISHING WATER QUALITY STANDARDS FOR SURFACE WATERS OF THE STATE OF ARKANSAS

~~Adopted by the Arkansas Pollution Control and Ecology Commission on (August 26, 2011)~~

Submitted to the PC&E Commission in February 2013
Initial Draft Markup

Reg. 2.103 Commission Review

The water quality standards herein established will be reviewed by the Commission at least once each three-year period beginning as of October 18, 1972. 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.

Reg. 2.104 Policy for Compliance

It shall be the policy of the Arkansas Department of Environmental Quality (hereinafter "Department") to provide, on a case-by-case basis, a reasonable time for an existing facility permittee to comply with new or revised water quality based effluent limits. Consequently, compliance schedules may be included in National Pollutant Discharge Elimination System (NPDES) permits at the time of renewal to require compliance with new water quality standards. Compliance must occur at the earliest practicable time, but not to exceed three years from effective date of permit, unless the permittee is completing site specific criteria development or is under a plan approved by the Department, in accordance with Regs. 2.306, 2.308, and the State of Arkansas Continuing Planning Process.

Reg. 2.105 Environmental Improvement Projects

The Commission may, after consideration of ~~the~~ information provided pursuant to Appendix B and Ark. Code Ann. § 8-5-901 et seq., grant modifications to the General and Specific Standards (Chapters 4 and 5, herein) or establish a subcategory(ies) of use(s) (Reg. 2.307, herein) for completion of long-term Environmental Improvement Projects. ~~(EIP), as provided by Act 401 of 1997, codified at A.C.A. § 8-5-901.~~

Reg. 2.106 Definitions

304(a) Guidance: Refers to Section 304(a) of the Clean Water Act, 33 U.S.C. § 1314(a), which requires the United States Environmental Protection Agency to publish and periodically update ambient water quality criteria which will be protective of human health and the environment.

Abatement: The reduction in degree or intensity of pollution.

Act: ~~Clean Water Act, as amended (33 U.S.C. 1251, et. seq.)~~

Acute toxicity: A statistically significant difference (at the 95 percent confidence level) in mortality or immobilization between test organisms and a control measured during a specified period of time which is normally less than 96 hours.

Algae: Simple plants without roots, stems, or leaves ~~which~~ that contain chlorophyll and are capable of photosynthesis.

All Flows: Takes into account all flows and data collected throughout the year, including elevated flows due to rainfall events.

Aquatic biota: All those life forms which inhabit the aquatic environment.

Aquatic life: The designated use of a waterbody determined by the fish community and other associated aquatic biota.

Base Flows: That portion of the stream discharge that is derived from natural storage (i.e., outflow from groundwater or swamps), or sources other than recent rainfall that creates surface runoff. Also called sustaining, normal, dry weather, ordinary, or groundwater flow.

Bioaccumulation: The process by which a compound is taken up by an aquatic organism, both from water and through food.

Chronic Toxicity: A statistically significant difference (at the 95 percent confidence level) in mortality or immobilization, reduced reproduction or limited growth between test organisms and a control measured during a substantial segment of the life span of the test organism.

Commission: The Arkansas Pollution Control and Ecology Commission.

Continuing Planning Process (CPP): ~~A document which describes the principal processes of the State's water quality management programs. The CPP is not a regulation.~~

Conventional pollutants: Pursuant to section 304(a)(4) of the Clean Water Act, 33 U.S.C. § 1314(a)(4), includes biochemical oxygen demand (BOD), total suspended solids (nonfilterable) (TSS), pH, fecal coliform, and oil and grease.

Criterion continuous concentration (CCC): ~~An estimate of the highest concentration of a material in ambient water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable adverse effect. This is the chronic criterion.~~

Criterion maximum concentration (CMC): ~~An estimate of the highest concentration of a material in ambient water to which an aquatic community can be exposed briefly without resulting in an unacceptable adverse effect. This is the acute criterion.~~

Critical flows: The flow volume used as background dilution flows in calculating concentrations of pollutants from permitted discharges. These flows may be adjusted for mixing zones. The following critical flows are applicable:

For a seasonal fishery - 1 **cubic foot per second (cfs)** minus the design flow of any point source discharge (may not be less than zero).

For human health criteria - harmonic mean flow or long term average flow.

For minerals criteria - ~~harmonic mean flow or 4 cfs, except in those waters listed in Reg. 2.511. Those waters in Reg. 2.511 which are noted with an asterisk will have a critical flow of 4 cfs. (Also see minerals implementation procedure in CPP)~~

- **Reg. 2.511(A)(1) Site specific standards: Q7-10.**
- **Reg. 2.511(A)(2) Site specific standards: Flow stated in site specific criteria documentation.**

- Reg. 2.511(B) Ecoregion Reference Stream Minerals Values: Harmonic mean flow; if no data is available to calculate a harmonic mean flow, permits shall contain a “monitor and report” condition (for a period of time not to exceed three years) until such time as the harmonic mean flow can be determined.
- Reg. 2.511 (C) Domestic Water Supply Criteria: Q7-10.

For ~~all others~~ metals and conventional pollutants: †The critical flow will be Q7-10.

(Also see minerals implementation procedure in State of Arkansas Continuing Planning Process).

Critical season: That period of the year when water temperatures exceed 22°C. This is normally the hot, dry season and after the majority of the fish spawning activities have ceased. This season occurs during a different time frame in different parts of the state, but normally exists from about mid-May to mid-September.

Cumulative: Increasing by successive additions.

Department: The Arkansas Department of Environmental Quality (ADEQ) or its successor.

Degradation: The act or process of causing any decrease in quality.

Design Flow: A facility discharge flow of process wastewater that is authorized in a NPDES permit.

Designated Uses: Those uses specified in the water quality standards for each waterbody or stream segment whether or not they are being attained.

Discharge: A discrete point source of waste or wastewater entering into waters of the State.

Dissolved oxygen (DO): A measure of the concentration of oxygen in solution in a liquid.

Ecoregion: A large area of landscape with relatively homogenous physical, chemical and biological characteristics.

Escherichia coli: Aa rod shaped gram negative bacillus (0.5 – 3-5 microns) abundant in the large intestines of mammals.

Endemic: Native to and confined to a specific region.

Existing Uses: Those uses listed in Section 303 (c)(2) of the Act Clean Water Act, 33 U.S.C. § 1313(c)(2) (i.e., public water supplies, propagation of fish and wildlife, recreational uses, agricultural and industrial water supplies, and navigation), which were actually attained in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards.

Fecal coliform bacteria: Gram-negative nonspore-forming rods that ferment lactose in 24 ± 2 hours at 44.5 ± 0.2 C with the production of gas in a multiple-tube procedure or produce acidity