

Arkansas Pollution Control and Ecology Commission

Regulation 3



Licensing of Wastewater Treatment Plant Operators

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and Ecology Commission
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draft

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STATE OF ARKANSAS
ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION
REGULATION NO. 3
LICENSING OF WASTEWATER TREATMENT PLANT OPERATORS

CHAPTER ONE: GENERAL PROVISIONS

Section 3.101 Authority

Arkansas Code Annotated (A.C.A.) § 8-5-205 authorizes the Pollution Control and Ecology Commission to adopt implementing regulations necessary to effectuate the powers and duties of the Wastewater Licensing Committee.

Section 3.102 Scope of Rules

The purpose of this Regulation is to establish requirements for the training, classification, qualifications, and licensing of operators of wastewater treatment plants and for other purposes.

Section 3.103 Definitions

All terms included in this section shall have the same meaning as established by A.C.A. § 8-5-201 unless more specifically defined herein.

Approved Training - Training reviewed and approved by the Committee that meets the requirements for wastewater training under this Regulation.

Commission - The Arkansas Pollution Control and Ecology Commission.

Committee, Licensing - The committee, appointed by the Arkansas Pollution Control and Ecology Commission, was created and established to advise and assist the Arkansas Pollution Control and Ecology Commission and the Department in the administration of the wastewater operators licensing program.

Department - The Arkansas Department of Environmental Quality, or its successor.

Domestic Wastewater - means the spent wastewater originating from all aspects of human sanitary water usage.

Executive Secretary - The Arkansas Department of Environmental Quality employee appointed by the ADEQ Director to administer the wastewater licensing program on behalf of the Committee and the Department.

Industrial Wastewater Treatment Facility - means a privately owned wastewater treatment plant for treating liquid wastes resulting from any process of industry,

manufacture, trade or business or the development of any natural resources. A facility shall be classified as "industrial" if no significant part of the wastewater is classified as municipal or domestic wastewater.

Municipal Wastewater Treatment Facility - means a treatment facility that generally includes the treatment of domestic, commercial, and industrial wastes.

Operator - Any person who is in responsible charge of the operation of a wastewater treatment plant, in whole or in part, and who, during the performance of their regular duties, exercises individual judgment which directly or indirectly may affect the proper operation of such plant. "Operator" shall not be deemed to include an official solely exercising general administrative supervision.

Wastewater Treatment Plant - Any plant, disposal field, lagoon, pumping station, or other works:

- (a) From which a controlled discharge occurs; and
- (b) That uses chemical or biological processes for:
 - (i) Treating, stabilizing, or disposing of sewage, industrial wastewaters or other wastewaters; or
 - (ii) The reduction and handling of sludge removed from such wastewater.

means any plant, disposal field, lagoon, pumping station or other works:

- (A) That use chemical or biological processes for:
 - (1) Treating, stabilizing, or disposing of sewage, industrial wastewaters or other wastewaters; or
 - (2) The reduction and handling of sludge removed from such wastewater, and
- (B) From which:
 - (1) A discharge to the waters of the state occurs, or
 - (2) Municipal wastewater is land-applied.

CHAPTER TWO: LICENSING COMMITTEE

Section 3.201 Licensing Committee Composition

The Wastewater Licensing Committee is created and established to advise and assist the Arkansas Pollution Control and Ecology Commission and the Arkansas Department of Environmental Quality (ADEQ) in the administration of the licensing program. The committee shall be composed of eight (8) members:

- (A) Five (5) members, to be appointed by the commission, of which three (3) members shall be active wastewater treatment plant operators licensed by the department and two (2) members shall be employed by a private corporation or industry located in Arkansas and nominated at large by corporations or industries for service on the committee;
- (B) One (1) member, to be appointed by the commission, shall be an employee of a municipality operating a wastewater treatment plant who holds the position of chief administrative officer, city engineer, director of public utilities, or other equivalent position;
- (C) One (1) member, to be appointed by the commission, shall be a faculty member of an accredited college, university, or professional school in the state whose major field is related to water resources or sanitary engineering; and
- (D) One (1) member shall be the Director of the Department of Environmental Quality, or a qualified member of the Director's staff, who shall act as executive secretary of the licensing committee.

Section 3.202 Licensing Committee Powers and Duties

- (A) The Licensing Committee shall have the power and duty to:
 - (1) Establish such administrative policies and guidelines as necessary to carry out the powers and duties of the Committee.
 - (2) Conduct such inquiries and establish findings necessary to advise the Commission and the Department on irregularities encountered in the management of the licensing program.
 - (3) Conduct such inquiries and establish such facts as necessary to advise the Commission and the Department on the actions of licensees.
 - (4) Recommend such administrative sanctions as necessary to promote the professional integrity of wastewater licensees.
 - (5) Adopt such criteria as the Committee may deem necessary to define the

areas of competence for each classification of operators and to establish criteria, make determinations, and recognize substitutions of equivalency, education, or experience as it deems appropriate.

- (6) Review and approve training programs to satisfy the requirements of this Regulation.

(B) Executive Secretary Powers and Duties

The Executive Secretary works on behalf of the Committee and the Department and shall:

- (1) Administer licensing examinations;
- (2) Collect fees;
- (3) Process licenses and renewals;
- (4) Review training requests and make recommendations; and
- (5) Complete other duties as required to carry out the responsibilities of the Committee and the Department.

CHAPTER THREE: REQUIREMENTS FOR LICENSURE

Every owner of a wastewater treatment plant is required to employ a licensed operator with a license classification at least equivalent to the treatment plant's classification as determined in accordance with Chapter 5 below. Anyone whose regular job duties may directly affect the process operation of the wastewater treatment plant must obtain a license under this Regulation.

The training and qualifications required for each class of license is set forth below:

Section 3.301 Requirements for and Classification of Licensed Municipal Wastewater Operators

(A) Apprentice License

- (1) Issued for a maximum of six (6) months; and
- (2) Issued only once; and
- (3) The receiving operator must have never been previously licensed under this Regulation.

(B) Class I License

- (1) High school graduate, GED or equivalent; and
- (2) Satisfactory completion of forty (40) hours of approved training or equivalent or substitute training as determined or defined by the Wastewater Licensing Committee and
- (3) Satisfactory completion of a Class I examination.

(C) Class II License

- (1) Hold a Class I or equivalent license; and
- (2) Satisfactory completion of a total of eighty (80) hours of approved training or equivalent or substitute training as determined or defined by the Wastewater Licensing Committee; and
- (3) Two (2) years of experience in wastewater treatment or related field; and
- (4) Satisfactory completion of a Class II examination; and
- (5) Have satisfactorily carried out the responsibilities of a Class I operator.

(D) Class III License

- (1) Hold a Class II or equivalent license; and
- (2) Satisfactory completion of a total of one hundred twenty (120) hours of approved training or equivalent or substitute training as determined or defined by the Wastewater Licensing Committee; and
- (3) Completion of a total of three (3) years of experience in wastewater treatment or related field; provided, that at least one (1) year shall have been in wastewater treatment plant operation; and
- (4) Satisfactory completion of a Class III examination; and
- (5) Have satisfactorily carried out the responsibilities of a Class II operator.

(E) Class IV License

- (1) Hold a Class III license or equivalent for at least three (3) years; and
- (2) Satisfactory completion of a total of two hundred (200) hours of approved training; and
- (3) Completion of six (6) years of experience in wastewater treatment; provided, that at least two (2) years shall have been in direct charge of a wastewater treatment plant or one of its major components; and
- (4) Satisfactory completion of a Class IV examination; and
- (5) Have satisfactorily carried out the responsibilities of a Class III operator.

Section 3.302 Requirements for and Classification of Technical Operators

(A) Class I or II Technical (T) License

- (1) Satisfactory completion of requirements §301(B) (1), (2) and (3) or §301(C) (1), (2) and (4) of this section chapter, respectively; and
- (2) Be currently employed in a related supporting occupation, e.g. employment by the Arkansas Department of Environmental Quality, or the Arkansas Department of Health.

(B) Class III or IV Technical (T) License

- (1) Satisfactory completion of requirements §301(D) (1),(2)and (4) or §301(E) (1), (2) and (4) of this section chapter, respectively; and
- (2) Be currently employed in a related supporting occupation.

- (C) Persons licensed under this section shall not be licensed as operators of wastewater treatment plants or any portion thereof.

Section 3.303 Requirements for and Classification of Special Operators

- (A) A licensed Professional Engineer is entitled to examination for any class license through Class III. Other educational and/or work experience may qualify an operator for similar consideration by the Committee.

Section 3.304 Requirements for Industrial Wastewater Operators

- (A) High school graduate, GED, or equivalent; and
- (B) Satisfactory completion of a total of twelve (12) hours of specifically approved training or equivalent or substitute training as determined or defined by the Wastewater Licensing Committee; and
- (C) Satisfactory completion of an Industrial Wastewater Operator examination.

Section 3.305 License Conversion

(A) Industrial Operator Conversion

- (1) (a) Industrial operators that hold a current Class I through IV license may convert that license to an industrial operator license within one year after the effective date of this regulation.

- (b) Operators must submit a written request to the Executive Secretary of the Arkansas Wastewater Licensing Committee for the license conversion.

- (2) After one year after the effective date of this regulation, any operator wishing to obtain any wastewater operator license must fulfill the license class requirements.

(B) New Operators

After the effective date of this regulation, any new operator must fulfill the license class requirements to obtain a license.

(C) Employment Changes

After the effective date of this regulation, any industrial operator that changes employment to a municipal, or any municipal operator that changes employment to an industry, must fulfill the license class requirements to obtain that license.

Section 3.306 Multiple License

(A) Fulfill Class Requirements

After the effective date of this regulation, any operator that wishes to hold multiple licenses (a municipal license and an industrial license), must fulfill all of the requirements of both classes.

(B) Multi-License Renewals

Those operators that hold multiple licenses may use the same renewal hours for more than one license.

(C) Multi-License Fees

Those operators that hold multiple licenses must pay renewal fees for each license held to keep those licenses current.

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CHAPTER FOUR: TRAINING

Section 3.401 Training Certification

All training to meet the requirements of this Regulation must be approved by the Committee as outlined in this Regulation. Training approved and certified by the Committee to meet the requirements of this Regulation shall be directly related to wastewater treatment, unless otherwise identified in this Regulation. Trainers shall submit requests for training approval and certification to the Committee via the Executive Secretary.

Section 3.402 Responsibility of Operators and Trainers

It shall be the responsibility of each operator to verify that the training meets the requirements of this Regulation. It is the operators'/trainers' responsibility to notify the Committee's Executive Secretary that training was satisfactorily completed.

Section 3.403 Training Requirements

(A) License Renewal

- (1) Twelve (12) hours, or 1.2 Continuing Education Units (C.E.U.), of approved wastewater training must be obtained annually. Hours in excess of twelve may be carried forward for one year.
- (2) Training obtained to meet these requirements may also count toward the additional training needed for higher license classifications.

(B) Higher Education Substitution

Higher Education courses may be applied to meet the wastewater training requirements in the following manner:

- (1) General Education classes:
 - (a) Undergraduate: 1.5 semester hours = 1.0 wastewater training hour
 - (b) Graduate: 1.0 semester hour = 1.0 wastewater training hour
- (2) Directly applicable classes; e.g., Biology, Chemistry, etc.:
 - (a) Applicability will be determined by the Committee
 - (b) Undergraduate: 1.0 semester hour = 4.0 wastewater training hours
 - (c) Graduate: 1.0 semester hour = 6.0 wastewater training hours
- (3) Correspondence courses taught from the California State University-

Sacramento (CSU-S) wastewater training curriculum will be allowed credit of four (4.0) training hours per chapter of wastewater training received.

- (4) Course grades must be a "C" (Average) grade or higher to substitute for wastewater training.
- (5) Proof of course credit must be submitted on an official transcript, or a copy of an official transcript, from a school accredited by the North Central Association of Colleges and Schools or equivalent accreditation recognized by the Arkansas Department of Higher Education.
- (6) Other courses or equivalent correspondence will be considered on a case-by-case basis as determined by the Committee.

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CHAPTER FIVE: TREATMENT PLANT CLASSIFICATION

Section 3.501 Licensure Requirements for Treatment Plants

Any person who operates a wastewater treatment plant, in whole or in part, and who, during the performance of their regular duties, exercises individual judgment which directly or indirectly may affect the proper operation of such plant shall be licensed under this Regulation.

All wastewater treatment plants shall have available a licensed operator to make operational decisions for the plant. This operator must be licensed at an equal or greater classification than the plant's classification established by this chapter.

Section 3.502 Classification of **Municipal Wastewater** Treatment Plants

Plants that treat domestic sewage for public health will be classified under this section.

(A) Each facility shall sum the total of rating points for each classification factor below, and based on the sum of all applicable rating points, the wastewater treatment facility shall be classified as:

- (1) Class I - Package plant, with effluent less than 50,000 gallons per day.
Individual, single-dwelling houses that treat domestic sewage only
- (2) Class I - 01 - 25 rating points.
- (3) Class II - 26 - 49 rating points.
- (4) Class III - 50 - 74 rating points.
- (5) Class IV - 75 or greater rating points.

(B) Classification Factor Rating Points

Equivalent population served 1/2000

Equivalent Population shall be calculated as Influent Biochemical Oxygen Demand (BOD) concentration (mg/l) x Influent Flow (Million Gallons per Day (MGD)) x 49; however, the maximum rating for this factor shall be 40.

Equivalent Population shall be calculated as:

Flow in MGD X Influent Biochemical Oxygen Demand (BOD) X 8.34 divided by 0.17. (The maximum rating for this factor shall be 40.)

Collection systems:

Lift station(s)	1/station
Lift station, one or more	5
Variable speed pumping	5

Vacuum collection system..... 10

Preliminary Treatment:

Screens / Bars.....	2
Manually raked bar screen.....	1
Mechanical raked bar screen(s).....	2
Comminutors (grinding).....	1
Grit removal	5

Clarification:

Primary settling and sludge removal	4
Secondary settling and sludge removal	6

Lagoon/Pond/Natural Systems:

Stabilization/Holding pond(s)	10
Holding pond(s).....	8
Seasonal discharge.....	8
Hydrograph controlled release pond	10
Aerated lagoon(s)/Natural systems	12
Duckweed	5
Constructed wetlands.....	10

Fixed Film Systems:

Trickling filter(s):	
Standard rate.....	10
High rate.....	12
Staged.....	12
Rotating biological contactors	14

Suspended Growth Systems:

Activated sludge:	
Mechanical aeration / Diffused air	18
Diffused air	19
Pure oxygen	24
Aerobic Oxide (AO).....	23
Aerobic Anoxide (A2O)	23
Sequencing Batch Reactor (SBR).....	18
Bardenpho	23
Oxidation ditch	18

Land Application Systems:

Overland flow	10
Slow rate	12
Rapid infiltration	10

Chemical treatment:

Reverse osmosis.....	15
Ultrafiltration.....	15

Carbon adsorption.....	15
Air stripping.....	15
Ion exchange.....	15
Metal precipitation.....	25
Alkaline chlorination of cyanide.....	20
Neutralization.....	5

Tertiary Treatment:

Chemical treatment.....	20
Filtration.....	15
Nutrient removal.....	20

Special treatment processes:

Oil separators.....	5
Flocculation.....	5
Dissolved Air Floatation (DAF) unit(s).....	10

Disinfection:

Chlorine.....	5
Ozone.....	7
Ultraviolet Light (UVL).....	5
De-chlorination.....	5

De-chlorination.....	5
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Sand or multimedia filters.....	10
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Post-aeration.....	2
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Receiving Stream Dilution:

Receiving Stream Dilution shall be calculated as receiving stream low flow using the "Q7-10" standard (7 day low flow in 10 years) in Million Gallons per Day (MGD) / Effluent Flow in Million Gallons per Day (MGD).

Good (greater than 10:1).....	2
Fair (2:1 to 10:1).....	5
Poor (less than 2:1).....	10

Sludge Treatment:

Thickening or dewatering.....	6
Gravity thickener(s).....	5
Centrifuge(s).....	8
Other thickening.....	5
Anaerobic digester(s).....	10
Aerobic digester(s).....	6
Drying bed.....	4
Chemical treatment conditioning.....	10

Methane recovery	2
Sludge heating	3
Vacuum / or coil filter(s) / centrifuge / composting	8
DAF unit(s)	10
High pressure (Zimpro)	12
Composting	5
Class A Biosolids	8
Sludge lagoon(s)	6
Sludge disposal:	
Landfill w/heavy equipment	2
Land application	4
Sludge lagoon(s)	6
Incineration	8
Vacuum collection system	10
Land application of effluent with no direct discharge	6

(C) **Classification Change**

Should this revision of this regulation change the classification of a plant to a higher classification, the facility will be allowed two (2) years from the effective date of the revised regulation to allow operator(s) to acquire the higher operator classification.

Section 3.503 Classification of Industrial Wastewater Treatment Plants

A wastewater treatment plant shall be classified as industrial if it is a privately owned wastewater treatment plant for treating liquid wastes, resulting from any process of industry, manufacture, trade or business or the development of any natural resources. A facility shall be classified as "industrial" if no significant part of the wastewater is classified as municipal or domestic wastewater.

CHAPTER SIX: ADMINISTRATION

Section 3.601 Administration

The wastewater licensing program shall be administered by the Executive Secretary of the Committee.

(A) License Examination:

- (1) Any person desiring to take a license examination for which that person is eligible must file an examination application with the Executive Secretary of the Committee at the Arkansas Department of Environmental Quality (ADEQ).
- (2) An examination fee of \$40.00 must accompany the examination application. All fees must be paid and an application approved prior to examination.
- (3) There will be a waiting period of three (3) months between examinations, either passed or failed, provided that all other licensing and examination requirements (educational, experience, etc.) are met.
- (4) Examination Score Appeals
 - (a) To appeal an examination score an operator shall notify the Executive Secretary of the Committee of intent to appeal within thirty (30) days after notification of the examination score.
 - (b) The appellant will be notified in writing within fifteen (15) working days of the date and time the examination may be reviewed with the Executive Secretary at the ADEQ licensing office.
 - (c) If, after the review, the operator's appeal is unsatisfied, the appeal may be referred to the Committee at the next scheduled meeting.

(B) License Renewal:

- (1) Renewal period – Licenses are valid for one (1) year (January 1 – December 31), with the renewal period beginning January 1.
- (2) Renewal Requirements – Licenses may be renewed without examination provided that the training requirements, as set forth in Section 3.403 (A)(1), are met.
- (3) Fees – An annual license renewal fee of \$20.00 must accompany a renewal request to be submitted to the Executive Secretary. A \$10.00 late fee may be assessed to renewals paid after the due date.

- (C) Lapsed License - Any operator who allows their license to expire for over one (1) year will be required to take a new examination before license consideration. The class at which the operator shall be re-examined will be at the discretion of the Committee.
- (D) Apprentice License - An application for licensure must be submitted to the Executive Secretary with a fee of \$10.00 for an apprentice license.
- (E) License Reciprocity - Operators who hold a wastewater license in another state may be granted an Arkansas license based on their current credentials. Reciprocity may be considered by the Committee on a case-by-case basis. The following minimum requirements must be met before consideration.
- (1) The operator must have sufficient training and experience to qualify for the requested class in accordance with this Regulation.
 - (2) The operator must have taken and passed a written examination for the equivalency that was administered by the authority for which reciprocity is requested.
 - (3) The operator must be currently licensed by a certification authority that recognizes the State of Arkansas wastewater licensing program.
 - (4) A written request for reciprocity with an accompanying \$40.00 research fee must be submitted to the Executive Secretary.

Approved reciprocity licenses may be maintained by renewal as per this Regulation.

(F) Revocation or Suspension of License:

- (1) The director of the Department of Environmental Quality, upon recommendation from the Licensing Committee, may revoke or suspend the license of an operator should the committee find that the operator:
 - (a) committed fraud in the application for a license or in the performance related to duties under a license;
 - (b) failed to exercise reasonable care, judgement or application of knowledge in the performance of the duties and responsibilities;
 - (c) is incompetent, unable or unwilling to perform the required duties;
or
 - (d) intentionally caused a violation of the licensing requirements or related law.

The time and conditions of suspension shall be at the discretion of the

Director.

- (2) If the Director determines that a license should be revoked or suspended, a Notice of Revocation or Suspension shall be filed with the Commission and served upon the operator. Service shall be notified by certified mail, with restricted delivery, of a Notice of Suspension or Revocation. A copy of same shall also be sent to the owner of the facility which employs the operator unless the facility is owned by the operator. The operator shall have the right to appeal the Notice and request a hearing. Procedures for the filing and conducting of an appeal shall be governed by Pollution Control & Ecology Commission Regulation Number 8.

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CHAPTER SEVEN: EFFECTIVE DATE

Section 3.701 Effective Date

This Regulation shall be effective ten days after filing with the Secretary of State.

Adopted by the Arkansas Pollution Control & Ecology Commission: ~~February 4, 2000~~
Month, day, year.

Filed with the Arkansas Secretary of State: ~~February 23, 2000~~ **Month, day, year.**

Effective Date: ~~March 3, 2000~~ **Month, day, year.**

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