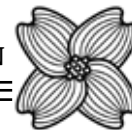




RULES OF
Department of Natural Resources
Division 20—Clean Water Commission
Chapter 6—Permits

Title	Page
10 CSR 20-6.010 Construction and Operating Permits	3
10 CSR 20-6.011 Fees.....	12
10 CSR 20-6.015 No-Discharge Operations and Land Application Requirements.....	14
10 CSR 20-6.020 Public Participation, Hearings, and Notice to Governmental Agencies.....	19
10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments	21
10 CSR 20-6.040 Expiration of Operating Permits in Force Under Senate Bill 424 (Rescinded July 10, 1980).....	27
10 CSR 20-6.050 Self-Monitoring (Rescinded May 12, 1983)	27
10 CSR 20-6.060 Water Quality Certification.....	27
10 CSR 20-6.070 Groundwater Heat Pump Operating Permits	28
10 CSR 20-6.080 Signatures for Construction Permits, Operating Permits and Groundwater Heat Pump Injection/Withdrawal Wells	33
10 CSR 20-6.090 Class III Mineral Resources Injection/Production Well Operating Permits	33
10 CSR 20-6.100 General Pretreatment Regulation	48
10 CSR 20-6.200 Storm Water Regulations.....	49
10 CSR 20-6.300 Concentrated Animal Feeding Operations.....	57



TITLE 10 – DEPARTMENT OF NATURAL RESOURCES
Division 20 – Clean Water Commission
Chapter 6 – Permits

10 CSR 20-6.010 Construction and Operating Permits

PURPOSE: This rule sets forth the requirements and process of application for construction and operating permits, and the terms and conditions for the permits. This rule also clarifies the requirements of the permit program, improves its administration, and brings the program in compliance with the latest federal regulations, 44 FedReg 32.854 (1979).

(1) Permits – General.

(A) All persons who build, erect, alter, replace, operate, use, or maintain existing point sources, or intend these actions for a proposed point source, water contaminant sources, or wastewater treatment facilities shall apply to the Missouri Department of Natural Resources (department) for the permits required in accordance with sections (5) and (7) of this rule, the Missouri Clean Water Law and regulations. The department issues these permits to enforce the Missouri Clean Water Law and regulations and administer the National Pollutant Discharge Elimination System (NPDES) Program.

(B) The following are exempt from permit regulations:

1. Nonpoint source discharges;
2. Service connections to wastewater collection systems;
3. Internal plumbing, piping, water diversion, or retention structures that are an integral part of an industrial process, plant or operation, except to the point wastewater is conveyed to receiving water;
4. Routine maintenance or repairs of any existing collection system, wastewater treatment facility, or other water contaminant or point source;
5. Onsite systems for single family residences;
6. The discharge of water from an environmental emergency cleanup site under the direction of, or the direct control of, the department or the Environmental Protection Agency (EPA), provided the discharge does not violate any condition of 10 CSR 20-7.031 Water Quality Standards;
7. Water used in constructing and maintaining a drinking water well and distribution system for public and private use, geologic test holes, exploration drill holes, groundwater monitoring wells, and heat pump wells;
8. Projects for beneficial use, that do not exceed a period of one (1) year, may be exempted by written project approval from the department. The department may extend the permit exemption for up to one additional year.
9. The application of pesticides in order to control pests (e.g., any insect, rodent, nematode, fungus, weed, etc.) in a manner that is consistent with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Missouri Pesticide Use Act unless such application is made directly into or onto waters of the state, in which case the applicator shall obtain a permit;
10. Hydrostatic testing. Persons discharging water used for the hydrostatic testing of new pipelines and storage tanks in the state of Missouri may discharge to waters of the state without first obtaining a permit if the discharge is *de minimis* (less than one thousand (<1,000) gallons) or meeting the requirements in section (14) of this rule;
11. Nondischarging facilities for domestic wastewater flows of three thousand gallons per day (3,000 gpd) or less; and
12. Agrichemical rinsates and any spilled or recovered fer-

tilizers and pesticides that are field applied at rates compatible with product labeling.

(C) Permittees may pursue integrated planning to facilitate the use of sustainable and comprehensive solutions.

(2) Continuing Authorities.

(A) Each application for a construction permit or operating permit shall identify the person, as that term is defined in section 644.016(15), RSMo, that is the owner of, operator of, or area-wide management authority for a water contaminant source, point source, wastewater treatment facility, or sewer collection system. This person shall be designated as the continuing authority and shall sign the application. By doing so, the person designated as the continuing authority acknowledges responsibility for compliance with all permit conditions. Industrial stormwater permits, industrial no-discharge permits, and construction stormwater permits are exempt from the higher level continuing authority requirements in this rule.

(B) Continuing authorities are listed in preferential order in the following paragraphs. A level three (3), four (4), or five (5) applicant may constitute a continuing authority by showing that the authorities listed under paragraphs (B)1.-2. of this rule are not available; do not have jurisdiction; are forbidden by state statute or local ordinance from providing service to the person; or that it has met one of the requirements listed in paragraphs (2)(C)1.-7. of this rule.

1. Level 1 Authority. A municipality or public sewer district or governmental entity which has been designated as the area-wide management authority under section 208(c)(1) of the Federal Clean Water Act;

2. Level 2 Authority. A municipality, public sewer district, or governmental entity which currently provides wastewater collection and/or treatment services on a regional or watershed basis as outlined in section (2)(F) of this rule and approved by the Missouri Clean Water Commission;

3. Level 3 Authority. A municipality, public sewer district, or sewer company regulated by the Public Service Commission (PSC) other than one which qualifies under paragraph (2)(B)1. or 2. of this rule or a public water supply district. Permits shall not be applied for by a continuing authority regulated by the PSC until the authority has obtained a certificate of convenience and necessity from the PSC;

4. Level 4 Authority. Any person, industry, or group of persons contractually obligated to collectively act as a wastewater collection and treatment service, or nonprofit company organized under section 393.825, RSMo, with complete control of, and responsibility for the water contaminant source, point source, or wastewater treatment system.

5. Level 5 Authority. An association of property owners served by the wastewater treatment facility, provided the applicant documents that –

A. The association is a corporation in good standing registered with the Office of the Missouri Secretary of State;

B. The association owns the facility and has valid easements for all sewers;

C. The covenants running with the land of each property owner provide the authority with compliance of wastewater treatment systems including at a minimum:

(I) The power to regulate the use of the collection system and/or the wastewater treatment facility;

(II) The power to levy assessments on its members and enforce these assessments by liens on the properties of each owner;

(III) The power to convey the facility to one (1) of the authorities listed in paragraphs (2)(B)1.-3.; and



(IV) The requirement that members connect with the facility and be bound by the rules of the association.

(C) Applicants for permits other than industrial stormwater permits, industrial no-discharge permits, and construction stormwater permits proposing use of a lower preference continuing authority when the higher level authority is available must submit one (1) of the following for the department's review, provided it does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or by the Missouri Clean Water Commission:

1. A waiver from the existing higher authority;
2. A written statement or a demonstration of non-response from the higher authority declining the offer to accept management of the additional wastewater;
3. A to-scale map showing that all parts of the legal boundary of the property to be connected are beyond two thousand feet (2000') from the collection system operated by a higher preference authority;
4. A proposed connection or adoption charge by the higher authority that would equal or exceed what is economically feasible for the applicant, which may be in the range of one hundred twenty percent (120%) of the applicant's cost for constructing or operating a wastewater treatment system;
5. A proposed service fee on the users of the system by the higher authority that is above what is affordable for existing home owners in that area;
6. Terms for connection or adoption by the higher authority that would require more than two (2) years to achieve full sewer service; or
7. A demonstration that the terms for connection or adoption by the higher authority are not viable or feasible to homeowners in the area.

(D) The applicants for industries, shall submit a statement waiving preferential status from each existing higher preference authority, if it exists, listed in paragraphs (2)(B)1., 2., or 3. of this rule for collection and treatment of industrial, process, and domestic wastewater as part of a new operating permit application.

(E) Private corporations which are not incorporated under the laws of Missouri shall be represented by a registered agent in the state of Missouri before a construction permit or an operating permit will be issued by the department.

(F) Application of Level 2 Authority. If a municipality or public sewer district wishes to provide wastewater collection and/or treatment services on a regional or watershed basis as outlined in paragraph (2)(B)2. of this rule, the entity shall –

1. Submit a preliminary request to the Missouri Clean Water Commission through the department to obtain higher authority;
2. Develop a plan, which includes, but not limited to:
 - A. A discussion of regional treatment service;
 - B. Capital improvements program;
 - C. Process to provide waivers when sewer connection is not available;
 - D. Approach to address permit compliance with facilities in the service area;
 - E. Community financial capability information; and
 - F. Defined service area map.
3. Obtain and maintain authority through ordinances to compel wastewater users and facilities to connect for management of wastewater flows. The ordinance requires the recipient to notify all potential users of service availability and that all users connect to the system within the timeframe provided in the notice of service availability. Submit a copy of the enacted ordinance.

4. Provide a public meeting prior to approval of the plan developed according to paragraph (2)(F)2. of the rule and the draft ordinance. Distribution of information and the publication of the notice of decision making should occur for at least thirty (30) days. Following the public meeting, provide a copy of the transcript, attendance log, recording, or other complete record to the department.

5. Submits a final request to the Missouri Clean Water Commission through the department, containing the fulfillment of paragraphs (2)(F)1.-4. of this rule, incorporating preliminary recommendations provided by the Missouri Clean Water Commission.

6. Staff shall review the plan and present recommendations to the Missouri Clean Water Commission for action.

(3) Antidegradation. Applicants seeking new or expanded discharges shall submit an antidegradation review request.

(A) Applicants may submit their request on forms provided by the department, and other information in support of the project, including, but not limited to, the following:

1. The Water Quality Review Assistance Antidegradation Review Request form, and the appropriate attachments;
2. An antidegradation report detailing the proposed project; and
3. Any additional information, evidence, documentation, technology performance information, modeling, or monitoring data consistent with the Antidegradation Implementation Procedure; and
4. The appropriate fee according to 10 CSR 20-6.011.

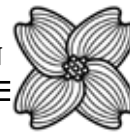
(B) Public comment. The department shall place a public notice of the antidegradation determination on the department's website and allow the public an opportunity to provide comments for a minimum of thirty (30) days. The antidegradation determination may be revised as a result of comments received.

(C) Notification in writing. A final determination whether the antidegradation is applicable, approved or denied shall be provided in writing to the applicant by the department.

(4) Facility Plans and Engineering Reports. Applicants seeking a construction permit shall submit a facility plan or engineering report unless otherwise designated by the department.

(A) Submit the engineering report and/or facility plan prior to submittal of the construction permit application, including the following, as applicable:

1. A signed facility plan or engineering report. All facility plans and engineering reports are to be signed and sealed by a Missouri registered professional engineer, and contain the information in accordance with 10 CSR 20-8;
2. Identify the alternative technical manuals and design criteria utilized that are different from the design standards provided in 10 CSR 20-8.110 through 10 CSR 20-8.220;
3. Submit an electronic version (in portable document format (PDF) searchable format or department approved equivalent) for review. To aid in review efficiency, the applicant may also submit paper copies of the documents, particularly those in large format. The department may request paper copies in addition to the electronic version;
4. For engineering reports.
 - A. Submit a plan of the existing and proposed sewers for projects involving new sewer systems and substantial additions to existing systems.
 - B. Submit a plan for projects involving construction or revision of pumping stations.
 - C. Provide the design basis and operating life; and



5. For facility plans.

A. Submit an approved water quality review and antidegradation evaluation or determination for all new and expanding facilities, in accordance with 10 CSR 20-7.031(3). For non-funded projects, information submitted as part of the antidegradation report does not have to be resubmitted with the facility plan.

B. Evaluate the feasibility of constructing and operating a facility with no discharge to waters of the state if the report is for a new or modified wastewater treatment facility.

C. Evaluate the economics of the project including alternatives to constructing a discharging system, including an evaluation of alternatives of wastewater irrigation or subsurface dispersal and connection to a regional wastewater treatment facility.

D. A geohydrological evaluation conducted by the department's Missouri Geological Survey, for all proposed new construction, new or major modification of earthen basins, new outfall locations, wastewater irrigation fields, and subsurface dispersal sites. Include any recommendations provided in the geohydrological evaluation.

(B) Engineering reports and/or facility plans are exempt for the following non-funded projects:

1. Disinfection equipment projects for treatment types promulgated in 10 CSR 20-8.190;

2. Projects exempted from construction permitting under subsection (5)(B) of this rule;

3. Sewer extensions permitted under the general construction permit provided in subsection (5)(C) of this rule;

4. Sewer projects that submit a Missouri registered professional engineer's Sewer Extension Design Certification with the permit application; and

5. Treatment plants and/or sewer extensions by a permittee with their own authority under section (6) of this rule, if they are not receiving department funding.

(5) Construction Permits.

(A) Any person causing or permitting the construction, installation, or modification of any collection system or wastewater treatment facility shall first receive a construction permit issued by the department for any of the following activities:

1. New or modified domestic wastewater discharges;

2. New or modified surface and subsurface wastewater treatment for private or domestic wastewater treatment facilities;

3. New or modified earthen basins used for wastewater storage or treatment including industrial operations and Class I Concentrated Animal Feeding Operations;

4. Sewer extensions and/or pump stations; or

5. Innovative technologies for domestic and publicly owned wastewater treatment, as defined by 10 CSR 20-8.140.

(B) The following activities are exempt from construction permitting when the activities meet the applicable standards in 10 CSR 20-2 through 10 CSR 20-9. Projects exempt from construction permitting may require professional engineering, as defined in section 327.181, RSMo:

1. Construction of a separate storm sewer;

2. Sewer extensions of one thousand feet (1,000') or less, including gravity sewers and/or force mains, with no more than one pump station;

3. Construction of nondischarging facilities for domestic wastewater flows of three thousand gallons per day (3,000 gpd) or less;

4. Class II and smaller animal feeding operations (AFO), as designated in 10 CSR 20-6.300;

5. Nondomestic discharges of process wastewater except discharges utilizing an earthen basin;

6. Stormwater best management practices, as defined in 10 CSR 20-6.200;

7. Industrial facilities connecting to a publicly owned wastewater treatment facility;

8. Treatment facilities evaluated and constructed under other department programs;

9. Systems adding common metal salts for phosphorus removal prior to existing liquid-solids separation and tertiary filtration;

10. Adding pre-engineered dechlorination equipment;

11. Solids processing equipment;

12. Like-for-like replacement (e.g., replacing eight-inch (8") pipe with eight-inch (8") pipe at the same location and grade, but material type may be different);

13. Outfall relocation within the same receiving stream, close proximity to the existing outfall, and upon review by the department;

14. Projects which the department has determined a construction permit is not required through written determination; and

15. Minor projects that change equipment or operations, but do not affect the overall capacity of the treatment or treatment type, including, but not limited to:

A. Internal piping changes;

B. pH adjustment;

C. Addition of solids storage tanks;

D. Screening equipment;

E. Grit removal equipment;

F. Administrative buildings;

G. Fences and access roads;

H. Flow measuring devices;

I. Mixing equipment;

J. Addition and/or improvement of sampling equipment;

K. Replacement of aeration equipment; and

L. Polymer additives.

(C) General Permits for Sewer Extension Construction. Persons may apply for a general construction permit for construction of gravity sewer line extensions, pump stations, and force mains.

(D) An applicant must submit a separate construction permit application for each collection system, or wastewater treatment facility to the department. Where there are multiple releases from a single operating location, however, one (1) application may cover all facilities and releases. For continuing authorities listed in paragraphs (2)(B)1., 2., or 3., submit only one (1) application when the authority operates a wastewater treatment facility and has one (1) or more other noncontinuous stormwater discharges associated with the facility.

(E) Demonstration Projects. Demonstration and pilot projects are innovative processes for which minimum design criteria is not well established. Demonstration or pilot projects shall be approved by the department prior to implementation of the new technology process or equipment.

1. Pilot project installations are those whose discharge is returned to the existing treatment facility. They are installed for a period of one (1) year and are exempt from obtaining a construction permit after obtaining department approval of the project evaluation. Refer to paragraph (1)(B)8. of this rule.

A. The project evaluation requirements are identified in 10 CSR 20-8.110(6). Pilot project installations are temporary and coordinated to ensure water quality is protected.

2. A demonstration project installation is a full scale innovative technology process. All antidegradation, operating permit, and construction permitting requirements apply.



A. Full scale demonstration projects in Missouri are not exempt from antidegradation or permit requirements.

B. The treatment process must be based on reasonable and sound engineering principles. Include a project evaluation of a technical performance demonstration of treating pollutants of concern in Missouri or locations with a climate similar to Missouri. The expected project evaluation details are outlined in 10 CSR 20-8.110(6) including review of design criteria.

C. An operating permit modification depends on the nature of the treatment process and will be determined during project review of the facility evaluation or plan.

3. The technology remains a demonstration process until documentation verifies consistent performance as designed for treatment of pollutants of concern for twelve (12) consecutive months at three (3) sites in Missouri or locations with a climate similar to Missouri. Design subsequent installations of verified treatment processes based on established design criteria.

(F) An applicant must submit an application for a construction permit to the department at least one hundred eighty (180) days for a wastewater treatment facility or sixty (60) days for collection system projects in advance of the date on which construction begins.

(G) An application for a construction permit shall be made on forms provided by the department and include the following items:

1. A construction permit application form signed –

A. For a corporation, by an individual having responsibility for the overall operation of the regulated facility or activity, such as the plant manager, or by a delegated individual having overall responsibility for environmental matters at the facility;

B. For a partnership or sole proprietorship, by a general partner or the proprietor respectively; or

C. For a municipal, state, federal, or other public facility, by either a principal executive officer or by a delegated individual having overall responsibility for environmental matters at the facility;

2. Appropriate permit fee according to 10 CSR 20-6.011;

3. An electronic copy of the construction permit application and the information listed below in portable document format (PDF) searchable format or department approved equivalent. To aid in review efficiency, the applicant may also submit paper copies of the documents, particularly those in large format. The department may request paper copies in addition to the electronic version;

4. An approved water quality review and antidegradation evaluation or determination for all new and expanding facilities, in accordance with 10 CSR 20-7.031(3);

5. A summary of design;

6. Detailed engineering plans and technical specifications signed, sealed, and dated by a Missouri registered professional engineer, which contain the information in accordance with 10 CSR 20-8, or other regulations as applicable;

7. A map showing the location of all outfalls, with scale, as well as a flowchart indicating each process which contributes to an outfall; and

8. Other information necessary to determine compliance with the Missouri Clean Water Law and these regulations as required by the department.

(H) If an application is incomplete or otherwise deficient, the applicant shall be notified of the deficiency and processing of the application may be discontinued until the applicant has corrected all deficiencies.

1. Applicants who fail to satisfy all department technical comments after two (2) certified comment letters, in a time

frame established by the department, may have the application returned as incomplete and shall forfeit the construction permit application fees.

2. The department shall act after receipt of all documents and information necessary for a properly completed application, as listed in subsection (5)(G) of this rule above and including appropriate filing fees, and other supporting documents as necessary, by either issuing or denying the construction permit.

3. The applicant may submit a written request that additional time is needed prior to the conclusion of the set time frame. The department shall grant reasonable time extensions.

(I) Notification in writing. A final determination whether the construction permit is approved, approved with conditions, or denied with reason, shall be provided in writing to the applicant by the department within one hundred eighty (180) days.

(J) Construction permits shall expire two (2) years from the date of issuance unless the permittee notifies the department within their application of the necessity for a longer construction period or the permittee applies for an extension.

1. Submit requests for construction permit extension thirty (30) days prior to expiration. If there are changes, the department may require the applicant to apply for a new construction permit.

(K) The minimum design standards requirements set forth in 10 CSR 20-8 do not preclude the department or the applicant from utilizing other published technical design guides during the application review process to ensure effluent limitations can be met. The department may request additional information and engineering justification to determine the facility's ability to meet effluent limits.

(L) Issuance of a construction permit does not constitute a guarantee by the department that the finished wastewater treatment facility will meet specified effluent limitations.

(M) A site specific operating permit application and appropriate modification fee shall be submitted with the construction permit application to allow for public participation prior to the issuance of a construction permit. An operating permit application and modification fee is not required with the construction permit application if –

1. Effluent limits and permit conditions have been established and the public notice and comment procedures were previously completed as part of an operating permit renewal;

2. Effluent limits were established as part of the Antidegradation Review and the required public notice and comment procedures were afforded in accordance with subsection (3)(B) of this rule;

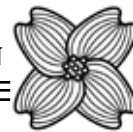
3. No new effluent limits and conditions are needed to be established in the existing operating permit, such as a facility description change; or

4. Applicant is seeking a general permit.

(N) The owner, owner's designee, or the professional engineers shall certify a project is complete or substantially complete, with the submittal of a Statement of Work Completed form.

1. If the project differs from the originally submitted plans and specifications, submit as-built plans clearly showing the alterations upon department request at the completion of the work.

2. A representative of the department may inspect the completed work in order to determine that the completed work substantially adheres to the submitted engineering plans, technical specifications, Missouri Clean Water Law, and Missouri Clean Water Commission regulations.



(6) Supervised Programs.

(A) Applicability. Continuing authorities listed in paragraphs (2)(B) 1., 2., or 3. with at least one (1) existing wastewater treatment facility with a design flow one million gallons per day (1 MGD) may be granted supervised program approval by the department. Supervised program approval exempts the permittee from the construction permit requirements for collection system and treatment plant works.

1. For collection system approval, the program solely applies to sanitary and/or combined sewer lines and appurtenances within a defined boundary under the continuing authority's control that ultimately discharges to a wastewater treatment facility owned by the same continuing authority.

2. For treatment plant approval, the program solely applies to continuing authorities conducting their own construction that is funded by the entity, in lieu of submitting plans and specifications for expansion or modification of existing treatment facilities. Continuing authorities desiring treatment plant approval must also have a collection system authority approved by the department.

3. If a project is receiving funding from the department under 10 CSR 20-4, the department may require the continuing authority to obtain a construction permit in compliance with 10 CSR 20-4 and 10 CSR 20-8.

4. If the facility is in noncompliance with the Missouri Clean Water Law, this may be reason for denial, suspension, or termination of the supervised program approval.

(B) Request Submittal. Authorities requesting supervised program approval may submit a request to the department with the following information regarding the system, treatment plant, capacity, and current procedures. The department shall review the request, supporting documentation, and may ask for additional information if necessary to determine compliance with the Missouri Clean Water Law and these regulations. The department shall inform the permittee in writing of its decision. Approval may be granted for a period of up to five (5) years in the applicant's operating permit.

1. General Information Submittal:

A. A statement that the continuing authority employs or contracts a sufficient number of Missouri registered professional engineers and other staff qualified to review plans, issue permits, prepare reports, inspect construction, and enforce local and state requirements for each sewer extension and treatment plant project. If the continuing authority engages outside firms, provide a copy of the minimum responsibilities and expectations of the consulting engineer and what oversight the continuing authority will have. Reviews must be independent of the designer to avoid conflicts of interest;

B. A statement that the continuing authority employs or contracts a sufficient number of persons qualified to supervise construction or that the continuing authority has enforceable ordinances which require construction supervision and subsequent certification by a Missouri registered professional engineer;

C. A statement on how the continuing authority maintains permanent records of approvals, sewer extensions, and treatment plant construction project and the retention policy for reports and project documentation; and

D. A copy of the procedures followed in reviewing, approving, and inspecting the construction of collection systems by others and for handling the design and construction of collection systems to be built by its own staff or contractors delineating the responsibilities between the designers and the reviewers must be present.

2. For Collection System Approval, applicants shall submit the following information:

A. Standard technical specifications and typical detail drawing, prepared, signed, and sealed by a Missouri registered professional engineer, in accordance with 10 CSR 20-8.110. Standard technical specifications and detail drawings complying with 10 CSR 20-8.120 through 10 CSR 20-8.130, and all other necessary appurtenances;

B. An engineering report discussing the remaining capacity of the existing collection system, including each pump station, and the available capacity of the wastewater treatment facility serving each area. Refer to 10 CSR 20-8.110(4);

C. A current layout map, or maps, of the collection system showing street names, sewer line material types, sizes, and lengths, manholes, pump stations, force mains, air release valves, and other sewer appurtenances as necessary, or a detailed description of the continuing authority's mapping system and the procedures for updating the system;

D. A copy of the enacted ordinance enforcing the standard technical specifications and typical detail drawings.

3. For Treatment Plant Approval, applicants shall submit the following information:

A. A copy of procedures to be followed in reviewing, approving, and inspecting the construction of wastewater treatment facilities by others and for retaining as-built plans following completion of the project, prepared by a Missouri registered professional engineer, in accordance with 10 CSR 20-8.110;

B. A facility plan discussing existing treatment plant(s), along with a summary of design discussing the remaining capacity of each existing wastewater treatment facility. Refer to 10 CSR 20-8.110(5);

C. Standard specifications and typical appurtenance construction details;

D. Following completion of the project, retain as-builts to be available for review, upon request.

(C) Operating Permit. Supervised program approval shall be granted through the applicant's operating permit for a period of up to five (5) years. The operating permit may contain additional reporting requirements including, but not limited to, a summary report for an approved period.

1. Treatment plant authority.

A. Antidegradation. Submittal and approval of an antidegradation review is required prior to any construction that will increase facility capacity, add or increase pollutants of concern, or change receiving stream. Refer to section (3) of this rule.

B. Operating Permit Modifications. Submit applications for operating permit modifications, when applicable, at least one hundred eighty (180) days before the date the facility begins to receive wastewater, unless permission for a later date has been granted by the department.

C. Technologies not established or discussed in 10 CSR 20-8 are not allowed for the Treatment Plant Approval.

(D) Summary Report. A report summarizing the construction activities will be contained in the operating permit application renewal for reauthorization.

1. For facilities with Collection System approval:

A. Name of sewer extension;

B. Length of sewer and force main;

C. Capacity of each new or upgraded pump station, if applicable;

D. Date sewer extension permit is issued;

E. Date sewer extension construction is accepted;

F. The ultimate receiving wastewater treatment facility;



G. The remaining long term average capacity of each wastewater treatment facility; and

H. Upon request, detailed project information on design flow, leakage, deflection, and inspections.

2. For facilities with Treatment Plant approval:

A. The projects planned, ongoing, or completed;

B. The remaining long-term average capacity of each treatment facility;

C. As-builts for new or expanded treatment facilities; and

D. Documentation and engineering justification of new or expanded treatment facilities of design components, which at a minimum meet the requirements in 10 CSR 20-8, Minimum Design Standards.

(E) Reauthorization. A request for reauthorization must be submitted at least one hundred eighty (180) days prior to expiration reaffirming (6)(B) of this rule. The department may conduct a site visit to review the request and summary report prior to reauthorization.

(7) Operating Permits.

(A) Persons who build, erect, alter, replace, operate, use, or maintain any water contaminant source, point source, or wastewater treatment facility which discharges to waters of the state shall obtain an operating permit from the department before any discharge occurs. The operating permit shall be issued to the owner and continuing authority. Nondischarging facilities for the treatment or disposal of wastes, wastewater, or residuals shall obtain permits as provided in 10 CSR 20-6.015.

(B) Applications.

1. An application for an operating permit must be submitted on forms provided by the department. The applications may be supplemented with copies of information submitted for other federal or state permits. The application shall include:

A. A map showing the location of all outfalls, with scale, as well as a flowchart indicating each process which contributes to an outfall;

B. Appropriate permit fee according to 10 CSR 20-6.011;

C. An antidegradation review for new and expanding discharging facilities;

D. A geohydrological evaluation conducted by the department's Missouri Geological Survey for new and expanded facilities;

E. If appropriate, a variance petition, with the information detailed in section (15) of this rule; and

F. Engineering certification that the project was designed to meet the requirements of 10 CSR 20-8 for projects exempted from construction permitting requirements in section (5) of this rule.

2. All applications must be signed as follows:

A. For a corporation, by an individual having responsibility for the overall operation of the regulated facility or activity, such as the plant manager, or by an individual having overall responsibility for environmental matters at the facility;

B. For a partnership or sole proprietorship, by a general partner or the proprietor respectively; or

C. For a municipal, state, federal, or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

3. The permittee shall provide written notice to the department as soon as possible of any planned physical alterations or additions to the permitted wastewater treatment facility.

(C) Applications for renewal of site-specific operating permits must be received at least one hundred eighty (180) days

either before the expiration date of the present site-specific operating permit or the date the facility begins to receive wastewater unless permission for a later date has been granted by the department. The department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

(D) For facilities seeking coverage under a general operating permit, the application for renewal shall be submitted according to section 644.051.10, RSMo.

(E) All reports required by the department shall be submitted and signed by a person designated in paragraph (7)(B)2. of this rule or a duly authorized representative, if –

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge occurs; and

2. The authorization is made in writing by a person designated in paragraph (7)(B)2. of this rule and is submitted to the department.

(8) Terms and Conditions of Permits.

(A) The following shall be incorporated as terms and conditions of all permits:

1. All discharges and solids disposal shall be consistent with the terms and conditions of the permit;

2. The permit may be modified or revoked after thirty (30) days' notice for cause including, but not limited to, the following causes:

A. A violation of any term or condition of the permit;

B. A misrepresentation or failure to fully disclose all relevant facts in obtaining a permit;

C. A change in the operation, size, or capacity of the permitted facility; and

D. The permit may be modified after proper public notice and opportunity for comment when a wasteload allocation study has been completed showing that more stringent limitations are necessary to protect the in-stream water quality;

3. The permit may not be modified so as to extend the term of the permit beyond five (5) years after its issuance;

4. Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations.

5. The permittee, owner, and continuing authority shall allow the department or an authorized representative (including an authorized contractor acting as a representative of the department), upon presentation of credentials to, at reasonable times –

A. Enter upon permittee's premises in which a point source, water contaminant source, or wastewater treatment facility is located or in which any records are kept according to the terms and conditions of the permit;

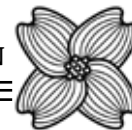
B. Have access to, or copy, any records that are kept according to the terms and conditions of the permit;

C. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under a permit; and

D. Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

6. If the permit is for a discharge from a publicly-owned treatment works, the permittee shall give adequate notice to the department of the following:

A. Any new introduction of pollutants into the treatment facility from an indirect discharger which would be subject to Sections 301 or 306 of the Federal Clean Water Act if it



were directly discharging those pollutants;

B. Any substantial change in the volume or character of pollutants being introduced into that treatment facility at the time of issuance of the permit; and

C. For purposes of this subparagraph, adequate notice includes information on the following:

(I) The quality and quantity of influent introduced into the treatment facility, and

(II) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment facility;

7. If the permit is for a discharge from a publicly-owned treatment works, the permittee shall be able to identify any introduction of pollutants or substances into the facility that alone or in combination will cause—disruption of the treatment processes, violation of effluent standards in their operating permit, violation of water quality standards in the receiving stream as defined in 10 CSR 20-7.031, or classification of the residues of the treatment processes as hazardous waste as defined in 10 CSR 25-4.010. In addition, the permittee shall require any industrial user of the treatment facility to comply with the requirements of 10 CSR 20-6.100;

8. If a toxic effluent standard, prohibition, or schedule of compliance is established under Section 307(a) of the Federal Clean Water Act for a toxic pollutant in the discharge of permittee's facility and the standard is more stringent than the limitations in the permit, then upon notice to the permittee the more stringent standard, prohibition, or schedule shall be incorporated into the permit as a condition; and

9. When a continuing authority under paragraph (2)(B)1., 2., or 3. is expected to be available for connection, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (2)(B)1., 2., or 3. facility, shall contain the following special condition: Permittee shall cease discharge by connection to a facility with an area-wide management plan according to subsection (2)(B) of this rule within the timeframe allotted by the continuing authority with its notice of its availability. The permittee shall obtain departmental approval for closure according to section (12) of this rule or alternate use of these facilities.

(B) The permit shall contain effluent limitations, monitoring requirements, and terms and conditions necessary to assure compliance with the Clean Water Law, related regulations or policies of the Missouri Clean Water Commission.

(9) Prohibitions. No permit shall be issued in the following circumstances:

(A) Where the terms and conditions of the permit do not comply with applicable guidelines or requirements, the Missouri Clean Water Law and Clean Water Commission regulations or the Federal Clean Water Act and federal regulations;

(B) Where the EPA regional administrator has properly objected to the issuance of a permit;

(C) Where the permit conditions cannot ensure compliance with the applicable water quality requirements of all other affected states;

(D) Where anchorage and navigation would be substantially impaired based on the judgement of the US Army Corps of Engineer's district engineer;

(E) For the discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste;

(F) For any discharge inconsistent with a plan or plan amendment approved under Section 208(b) of the Federal Clean Water Act; or

(G) To a facility which is a new source or a new discharger, if

the discharge from the construction or operation of the facility shall –

1. Cause or contribute to the violation of water quality standards if the discharge is located in a segment that was an effluent limitation segment, prior to the introduction of the discharge from the new source or discharger; or

2. Exceed its pollutant load allocation if the discharge is into a water quality limited segment.

(10) Operating Permit Renewal and Expiration Dates.

(A) Missouri State operating permits may be issued for a period not to exceed five (5) years.

(B) Whenever a release or a potential for release from a point source, water contaminant source, or wastewater treatment facility is permanently eliminated, the existing operating permit will be terminated.

(C) Continuation of Expiring Permits.

1. The terms and conditions of an expired permit are continued automatically pending issuance of a renewed operating permit if –

A. The permittee submitted a timely and sufficient application for a renewed operating permit under this rule; and

B. The department is unable, through no fault of the permittee, to issue a renewed operating permit before the expiration date of the previous permit.

2. Permits continued under paragraph (10)(C)1. remain fully effective and enforceable.

(11) Permits Transferable.

(A) Subject to subsection (2)(A), a construction permit and/or operating permit may be transferred upon submission to the department of an application to transfer signed by the existing owner and/or continuing authority and the new owner and/or continuing authority.

1. Until the time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.

2. To receive a transfer permit, the new owner and/or continuing authority must complete an application according to section (5) and/or section (7) of this rule and demonstrate to the department that the new continuing authority agrees to be responsible for compliance with the permit.

3. The new owner and/or continuing authority shall be responsible for complying with the terms and conditions of the permit upon transfer.

(B) The department, within thirty (30) days of receipt of the application, shall notify the new applicant of its decision to revoke and reissue or transfer the permit.

(C) For facilities with construction and/or operating permits that the department is unable to reissue the operating permit within thirty (30) days of the transfer application, the construction and/or operating permit may be transferred to the new permittee if:

1. The current permittee notifies the department at least thirty (30) days in advance of the proposed transfer date;

2. The notice includes a complete application for transfer between the existing and new permittees containing a specific date for transfer of construction and/or permit responsibility, coverage, and liability between them; and

3. The department does not notify the existing permittee and the proposed new permittee of its decision to revoke and reissue or transfer the operating permit. If no objection is received from the department within thirty (30) days of receipt of the notice, the transfer is effective on the date specified in the agreement.

**(12) Closure of Treatment Facilities.**

(A) Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the department.

(B) Closure plans shall address wastewater and sludge removal, dewatering activities, removal of treatment structures, removal of solid waste, or leaving in place as clean fill, site grading and site shaping so that ponding does not occur.

(C) Closure plans shall be submitted to the department no later than ninety (90) days after ceasing operations. The permittee, owner, and/or responsible party shall complete closure activities within the timeframe provided in the closure plan.

(D) Operating permits under section (7) of this rule or under 10 CSR 20-6.015 are required until all waste, wastewater, wastewater solids/sludges and any solid wastes have been disposed of in accordance with the closure plan approved by the department under subsection (12)(A) of this rule, and any disturbed areas have been properly stabilized.

(13) General Operating Permits.

(A) The department may issue a general operating permit in accordance with the following:

1. The general operating permit covers a category of discharges described in the permit except those covered by site-specific permits within a geographic area. The area corresponds to existing geographic or political boundaries, such as –

- A. Designated planning areas under Sections 208 and 303 of the Federal Clean Water Act;
- B. City, county, or state political boundaries, or special sewer districts;
- C. State highway systems; and
- D. Any other appropriate division or combination of boundaries; and

2. The general operating permit regulates a category of point sources if the sources all –

- A. Involve the same or substantially similar types of operations;
- B. Discharge the same types of wastes/wastewaters;
- C. Require the same effluent limitations or operating conditions;
- D. Require the same or similar monitoring; and
- E. Are controlled more appropriately, in the opinion of the department, under a general operating permit than under site-specific permits.

(B) General operating permits may be issued, modified, revoked, and reissued or terminated in accordance with applicable requirements of this regulation. To be included under a general operating permit, submit an application on forms supplied by the department.

(C) The department may require any person authorized by a general operating permit to apply for and obtain a site-specific operating permit. Any interested person may petition the department to take action under this subsection. Cases where a site-specific operating permit may be required, include, but are not limited to, the following:

- 1. The discharge(s) is a significant contributor of pollution which impairs the beneficial uses of the receiving water;
- 2. The discharger is not in compliance with the conditions of the general operating permit; and
- 3. A Water Quality Management Plan containing requirements applicable to these point sources is approved by the department.

(D) Any owner and continuing authority authorized by a general operating permit may request to be excluded from the coverage of the general operating permit by applying for a site-specific permit.

1. When a site-specific operating permit is issued to an owner and continuing authority otherwise subject to a general operating permit, the applicability of the general operating permit is terminated automatically on the effective date of the site-specific permit.

2. A source excluded from a general operating permit solely because it already has a site-specific permit may request that the site-specific permit be revoked and that it be covered by the general operating permit, if it meets all the requirements for coverage.

(E) The department may require any person applying for a site-specific permit to obtain a general operating permit.

(14) Hydrostatic Testing. Persons discharging water used for the hydrostatic testing of new pipelines and storage tanks are exempt from permitting if the discharge is de minimis (less than one thousand (<1,000) gallons) or the person takes the following steps:

(A) Discharge Limits. The discharge must meet the following limits:

- 1. 100 mg/L total suspended solids;
- 2. pH:
 - A. Missouri or Mississippi Rivers, in the range from 6.0 to 10.0 standard units; or
 - B. All other waters, in the range from 6.5 to 9.0 standard units;
- 3. 0.32 mg/l ethylbenzene;
- 4. 0.005 mg/L benzene;
- 5. 1.0 mg/L toluene; and
- 6. 10.0 mg/L xylene.

(B) Sampling and testing requirements. One (1) grab sample shall be taken per discharge during the first sixty (60) minutes of the discharge and be analyzed for the pollutants listed in (14)(A) of this rule as well as total discharge volume in gallons per day.

(C) Exception reporting. If any of the sampling results from the hydrostatic test discharge show any exceedance of (14)(A) limits, provide written notification, including the date of the sample collection, the analytical results, and a statement concerning the modifications in management practices that are being implemented to address the violation within five (5) days of notification of analytical results to the department.

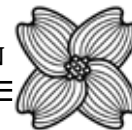
(D) The hydrostatic testing water shall not contain dyes or have a visible sheen indicating the presence of petroleum products.

(E) Any person who irrigates wastewater from a hydrostatic test may do so under this rule if the irrigation does not result in any discharge to waters of the state. The quality of the irrigated wastewater is not required to meet the limits in (14)(A).

(F) Persons discharging under this exemption are not required to obtain a separate permit to construct and operate an oil-water separator to aid in meeting limits for hydrostatic wastewater.

(15) Variance Request Process.

(A) Water Quality Standards Variance. Any person, permittee, or group of permittees seeking a variance shall file a petition for variance with the department according to 40 CFR 131.14, as published August 21, 2015 by the EPA Docket Center, EPA West 1301 Constitution Avenue NW., Washington, DC 20004. This rule does not incorporate any subsequent amendments



or additions.

(B) Non-water Quality Standard Variance. Any person, permittee, or group of permittees seeking a variance shall file a petition for variance with the department according to section 644.061, RSMo.

(C) Provisional Variance.

1. A provisional variance is a short term, time limited reprieve from limitations, rules, standards, requirements, or order of the director because of conditions beyond the reasonable control of the permittee, would result in an arbitrary or unreasonable hardship, and the compliance costs are substantial and reasonably certain.

2. In accordance with section 644.062, RSMo, any person or permittee may apply for a provisional variance for limitations, rules, standards, requirements, or orders from the department pursuant to sections 644.006 through 644.141, RSMo. A provisional variance may not be granted under this regulation for limitations, rules, standards, requirements, or orders from the department pursuant to other statutes. The application for a provisional variance shall include information in accordance with subsection (15)(A) of this rule.

3. The provisional variance is issued by the department and may be retroactively applied upon permittee request. If a provisional variance is granted, notice shall be given using the same method prescribed for operating permits issued by the department in 10 CSR 20-6.020. The department shall promptly notify the applicant of the decision in writing and file the decision with the Missouri Clean Water Commission. Granting of a provisional variance is documentation of the department's enforcement discretion. There is no public notice period prior to issuance of a provisional variance. If retroactively granted, the permittee shall submit appropriate modified reports (such as discharge monitoring or those prescribed in a permit) within twenty (20) days of the provisional variance issuance date.

4. Provisional variances shall not be granted for the following:

A. In the department's judgement said variance would endanger public health, cause significant harm to aquatic life or wildlife, result in damage to property, or other demonstrable and measurable harm to downstream interests;

B. In anticipation of federal approval of any changes to a state water quality standard;

C. From the requirement to obtain a permit for an activity, in accordance with 10 CSR 20-6 and Chapter 644, RSMo;

D. To allow an activity which would otherwise require a permit to begin before the department issues or denies a permit; or

E. To allow a facility to exceed a permit limitation while the department considers an application to modify the permit limitation.

5. A provisional variance may be issued for up to forty-five (45) days, and may be extended once for up to an additional forty-five (45) days. The appropriate length of the provisional variance shall be determined at the discretion of the department.

A. Provisional variances may be issued for periods less than forty-five (45) days, or terminated earlier than the length of time specified at issuance, at the permittee's request (assuming that the variance is no longer essential for compliance).

B. The provisional variance may be granted subject to conditions determined necessary by the department. In order to qualify for an extension, a demonstration that the conditions under which the previous variance were granted still exist or are substantially similar.

C. In no case shall a provisional variance be granted

to the same facility for more than ninety (90) days within the same calendar year.

6. Should a facility apply for multiple provisional variances or a single variance for the maximum ninety (90) days allowed, a long term plan to eliminate the need for relief from the same limit, rule, standard, requirement, or order, subject to the restrictions set forth above, needs to accompany the request in order for the application to be considered complete.

7. If the provisional variance is issued for a delay of implementation of limitations, rules, standards, requirements, or orders from the department to correct a violation, section 644.042, RSMo, requires the applicant post a performance bond or other security to assure completion of the work covered by the variance. The proof of financial responsibility may be in the form of a surety bond, CD, or irrevocable letter of credit and be subject to the following:

A. The bond is signed by the applicant as principal, and by a corporate surety licensed to do business in the state of Missouri;

B. The bond remains in effect until the terms and conditions of the variance are met and rules and regulations promulgated pursuant thereto are complied with;

C. It is on file with the department;

D. It is made payable to the department; and

E. If the bond, CD, or letter of credit is cancelled by the issuing agent, submit new proof of financial responsibility within thirty (30) days of cancellation, or the provisional variance will be cancelled.

AUTHORITY: sections 640.710 and 644.026, RSMo 2016. Original rule filed June 6, 1974, effective June 16, 1974. Rescinded: Filed Oct. 16, 1979, effective July 10, 1980. Readopted: Filed Feb. 4, 1980, effective July 11, 1980. Amended: Filed Sept. 8, 1981, effective Feb. 11, 1982. Amended: Filed Nov. 10, 1982, effective May 12, 1983. Amended: Filed Sept. 11, 1984, effective March 12, 1985. Amended: Filed Feb. 1, 1988, effective June 13, 1988. Amended: Filed Sept. 13, 1988, effective Feb. 14, 1989. Amended: Filed July 15, 1991, effective Jan. 13, 1992. Amended: Filed March 1, 1996, effective Nov. 30, 1996. Amended: Filed Nov. 3, 1997, effective July 30, 1998. Amended: Filed May 15, 2003, effective Jan. 30, 2004. Amended: Filed May 12, 2008, effective Feb. 28, 2009. Amended: Filed March 16, 2009, effective Dec. 30, 2009. Emergency amendment filed July 14, 2011, effective Oct. 31, 2011, expired April 27, 2012. Amended: Filed July 14, 2011, effective April 30, 2012. Amended: Filed June 13, 2018, effective Feb. 28, 2019. ** Amended: Filed June 30, 2022, effective Feb. 28, 2023.*

**Original authority: 640.710, RSMo 1996, and 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

***Pursuant to Executive Order 21-07, 10 CSR 20-6.010, paragraph (5)(G)3. was suspended from April 8, 2020 through May 25, 2021.*

Op. Atty. Gen. No. 53, Lafser (1-26-79). *The point source discharges of pollutants from federal facilities within the state of Missouri are subject to the same NPDES program requirements as are any other point source discharges of pollutants subject to the Missouri Clean Water Law and regulations.*

Op. Atty. Gen. No. 156, Wilson (8-18-76). *The initial responsibility for issuing Clean Water Commission permits under section 204.051, RSMo Supp. 1975 rests with the director of the Department of Natural Resources acting in his/her capacity of administering Department of Natural Resources programs relating to environmental control and executing policies established by the Clean Water Commission.*

**10 CSR 20-6.011 Fees**

PURPOSE: This regulation explains how the Department of Natural Resources implements fees authorized by the Missouri Clean Water Law. It sets the procedures for collection of fees from permit holders. Fees are collected for state operating permits, sewer permits, and construction permits.

(1) Fees – General.

(A) Pursuant to section 644.057, RSMo, beginning on January 1, 2015, all persons who build, erect, alter, replace, operate, use, or maintain wastewater treatment facilities shall pay the appropriate fees prescribed by this rule.

(B) Definitions.

1. Adjusted design flow. The actual average wastewater flow from a human sewage treatment system. If the average flow is sixty percent (60%) or less than the system's design flow, the average flow may be substituted for the design flow when calculating the permit fee on human sewage treatment facilities.

2. Definitions as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 apply to those terms when used in this regulation.

3. Industrial process wastewater. This term as used in section 644.052, RSMo means any water, including storm water, that is regulated under 10 CSR 20-6.200, during manufacturing or processing, which comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

4. Privately-owned treatment works. A treatment works serving a residential area, restaurant, commercial concern, or other operation that only produces domestic sewage as defined in section 701.025, RSMo.

(C) Submit fees associated with this rule to the Missouri Department of Natural Resources. In the event a check used for the payment of operating fees is returned to the department marked insufficient funds, the person forwarding the check shall be given fifteen (15) days to correct the insufficiency. If payment has not been corrected after fifteen (15) days, the person may be referred to the attorney general's office and assessed late penalties, pursuant to section 644.055, RSMo. When a check used for the payment of a construction fee is returned to the department marked insufficient funds, review of the application shall cease and the applicant shall be notified. If the insufficiency is not corrected after ten (10) days, the application shall be returned as incomplete.

(D) Each payment shall identify the following: National Pollutant Discharge Elimination System (NPDES) permit number, payment period, and applicant, or the permittee name and address. Persons who own or operate more than one (1) facility may submit one (1) check to cover all annual permit fees, but are responsible for submitting the appropriate information to allow proper credit of each permit account.

(E) Annual fees shall be paid in full on their due date. Permittees who only discharge intermittently, seasonally, or for a short period of time must pay the entire annual fee. Fees are annual fees and may not be prorated. In the event the discharge is eliminated, the permittee is responsible for requesting termination of the permit. When permits are revoked or denied, the annual fees are forfeited. It is unlawful to discharge water contaminants into waters of the state without a permit.

(F) Annual fees are the responsibility of the permittee. Failure to receive a statement due to mailing errors, change of address, ownership changes or other reason(s) is not an excuse for failure to remit the fees. Penalties shall be charged as provided in

section 644.055, RSMo.

(G) Where a person has the permit responsibility for more than one (1) operating permit, the department may combine the billings by issuing all operating permits with the same expiration date. Each facility will continue to operate under and be governed by the separate provisions of each individual permit.

(2) Fees – Amounts.

(A) A privately owned treatment works or an industry which treats only human sewage shall annually pay a fee based upon the design flow of the facility as follows:

1. One hundred fifty dollars (\$150) if the design flow is less than five thousand (5,000) gallons per day;

2. Three hundred dollars (\$300) if the design flow is equal to or greater than five thousand (5,000) gallons per day but less than ten thousand (10,000) gallons per day;

3. Six hundred dollars (\$600) if the design flow is equal to or greater than ten thousand (10,000) gallons per day but less than fifteen thousand (15,000) gallons per day;

4. One thousand dollars (\$1,000) if the design flow is equal to or greater than fifteen thousand (15,000) gallons per day but less than twenty-five thousand (25,000) gallons per day;

5. One thousand five hundred dollars (\$1,500) if the design flow is equal to or greater than twenty-five thousand (25,000) gallons per day but less than thirty thousand (30,000) gallons per day;

6. Three thousand dollars (\$3,000) if the design flow is equal to or greater than thirty thousand (30,000) gallons per day but less than one hundred thousand (100,000) gallons per day.

7. Four thousand dollars (\$4,000) if the design flow is equal to or greater than one hundred thousand (100,000) gallons per day but less than two hundred fifty thousand (250,000) gallons per day; or

8. Five thousand dollars (\$5,000) if the design flow is equal to or greater than two hundred fifty thousand (250,000) gallons per day.

(B) Persons who produce industrial process wastewater which requires treatment and who apply for or possess a site-specific permit shall annually pay –

1. Five thousand dollars (\$5,000) if the industry is a class IA concentrated animal feeding operation as defined by the commission; or

2. For facilities issued operating permits based upon categorical standards pursuant to the Federal Clean Water Act and regulations implementing such act:

A. Four thousand two hundred dollars (\$4,200) if the design flow is less than one (1) million gallons per day; or

B. Five thousand dollars (\$5,000) if the design flow is equal to or greater than one (1) million gallons per day.

(C) Persons who apply for or possess a site-specific permit solely for industrial storm water shall pay an annual fee of:

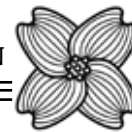
1. One thousand eight hundred dollars (\$1,800) if the design flow is less than one (1) million gallons per day; or

2. Two thousand eight hundred dollars (\$2,800) if the design flow is equal to or greater than one (1) million gallons per day.

(D) Persons who produce industrial process wastewater who are not included in subsections (2)(B) or (2)(C) of this section shall annually pay –

1. One thousand eight hundred dollars (\$1,800) if the design flow is less than one (1) million gallons per day; or

2. Three thousand dollars (\$3,000) if the design flow is equal to or greater than one (1) million gallons per day.



(E) Persons who apply for or possess a general permit or permit by rule shall pay –

1. For the discharge of storm water from a land disturbance site –

A. Five hundred dollars (\$500) if the site is at least one (1) acre and less than five (5) acres;

B. Six hundred dollars (\$600) if the site is equal to or greater than five (5) acres but less than ten (10) acres;

C. Seven hundred fifty dollars (\$750) if the site is equal to or greater than ten (10) acres but less than twenty-five (25) acres;

D. One thousand five hundred dollars (\$1,500) if the site is equal to or greater than twenty-five (25) acres but less than one hundred (100) acres;

E. Three thousand dollars (\$3,000) if the site is equal to or greater than one hundred (100) acres but less than five hundred (500) acres; or

F. Five thousand dollars (\$5,000) if the site is equal to or greater than five hundred (500) acres; and

G. Any permit issued to a public agency or private party for multiple sites shall pay a single fee based upon the estimated acreage of all the sites as follows:

(I) One thousand five hundred dollars (\$1,500) if the sites are less than one hundred (100) acres;

(II) Three thousand dollars (\$3,000) if the sites are equal to or greater than one hundred (100) acres but less than five hundred (500) acres; or

(III) Five thousand dollars (\$5,000) if the sites are equal to or greater than five hundred (500) acres;

2. One hundred dollars (\$100) annually for the operation of a chemical fertilizer or pesticide facility;

3. For the operation of an animal feeding operation or a concentrated animal feeding operation –

A. Five thousand dollars (\$5,000) per year for a national pollutant discharge elimination system permit or a Missouri state operating permit for a class IA concentrated animal feeding operation as defined by the commission;

B. Four hundred fifty dollars (\$450) per year for a national pollutant discharge elimination system permit for a class IB concentrated animal feeding operation as defined by the commission;

C. Three hundred fifty dollars (\$350) per year for a national pollutant discharge elimination system permit for a class IC or class II concentrated animal feeding operation as defined by the commission;

D. Three hundred dollars (\$300) per year for a Missouri state operating permit for a class IB concentrated animal feeding operation as defined by the commission; or

E. One hundred fifty dollars (\$150) per year for a Missouri state operating permit for a class IC or class II concentrated animal feeding operation as defined by the commission;

4. Two hundred fifty dollars (\$250) annually for the discharge of storm water from a municipal separate storm sewer system (MS4);

5. Three hundred dollars (\$300) annually for the operation of an aquaculture facility;

6. For discharging publicly owned treatment works which treats only human sewage shall annually pay the fee in subsection (F) based upon the number of service connections to the facility;

7. One hundred fifty dollars (\$150) annually for a permit by rule and for a pesticide applicator permit.

8. Two hundred dollars (\$200) annually for a permit for the discharge of process water or storm water, potentially contaminated by activities not included in paragraphs 1. to 7. of this

subsection.

(F) Persons with a direct or indirect sewer service connection to a public sewer system owned or operated by a city, public sewer district, public water district, other publicly owned treatment works, or any district formed pursuant to the provisions of section 30(a) of Article VI of the *Missouri Constitution* shall pay an annual fee per water service connection as provided in this subsection. Customers served by multiple water service connections shall pay such fee for each water service connection, except that no single facility served by multiple connections shall pay more than a total of seven hundred dollars (\$700) per year. The fees provided for in this subsection shall be collected by the agency billing such customer for sewer service and remitted to the department. The fees may be collected in monthly, quarterly, or annual increments, and shall be remitted to the department no less frequently than annually. The fees collected shall not exceed the amounts specified in this subsection and, except as provided in paragraph 7. of this section, shall be collected at the specified amounts unless adjusted by the commission in rules. The annual fees shall be –

1. For customers of sewer systems that serve more than thirty-five thousand (35,000) customers, forty-eight cents (\$0.48);

2. For customers of sewer systems that serve equal to or less than thirty-five thousand (35,000) but more than twenty thousand (20,000) customers, sixty cents (\$0.60);

3. For customers of sewer systems that serve equal to or less than twenty thousand (20,000) but more than seven thousand (7,000) customers, seventy-two cents (\$0.72); or

4. For customers of sewer systems that serve equal to or less than seven thousand (7,000) customers, eighty cents (\$0.80);

5. Three dollars and forty-two cents (\$3.42) for commercial or industrial customers not served by a public water system as defined in Chapter 640, RSMo;

6. Three dollars (\$3) per water service connection for all other customers with water service connections of less than or equal to one (1) inch excluding taps for fire suppression and irrigation systems;

7. Eleven dollars (\$11) per water service connection for all other customers with water service connections of more than one (1) inch but less than or equal to four (4) inches, excluding taps for fire suppression and irrigation systems; or

8. Twenty-nine dollars (\$29) per water service connection for all other customers with water service connections of more than four (4) inches, excluding taps for fire suppression and irrigation systems.

(G) For the purpose of permit modification fees, non-substantive changes are those listed as minor modifications in 40 CFR section 122.63. Persons requesting modifications to state operating permits that charge a service connection fee shall pay two hundred dollars (\$200). Persons requesting a modification to an operating permit shall pay:

1. One hundred dollars (\$100) for name changes, address changes, or other non-substantive changes, or for a modification of a general permit; or

2. A fee equal to twenty-five percent (25%) of the annual operating fee assessed for the facility for other changes;

(H) Persons requesting water quality certifications in accordance with Section 401 of the Federal Clean Water Act shall pay a fee of –

1. One hundred fifty dollars (\$150) for a project that requires a Finding of No Significant Impact or other documentation pursuant to the federal National Environmental Policy Act, but does not require an environmental impact statement; or

2. One thousand five hundred dollars (\$1,500) for a project



that does require an environmental impact statement, pursuant to the federal National Environmental Policy Act. Applicants shall submit the standard application form for a Section 404 permit as administered by the U.S. Army Corps of Engineers or similar information required for other federal licenses and permits, except that the fee is waived for water quality certifications issued to and accepted by the U.S. Army Corps of Engineers for activities authorized pursuant to a general permit or nationwide permit issued pursuant to section 404 of the Federal Clean Water Act.

(I) Persons applying for an anti-degradation review shall pay a fee as follows:

1. Two hundred fifty dollars (\$250) for an anti-degradation review or a water quality review analysis for an existing wastewater treatment plant that will be upgraded;

2. Five hundred dollars (\$500) for an anti-degradation review for a new wastewater treatment plant if the design flow is less than one hundred thousand (100,000) gallons per day; or

3. One thousand dollars (\$1,000) for an anti-degradation review for a new wastewater treatment plant if the design flow is equal to or more than one hundred thousand (100,000) gallons per day;

(J) Persons applying for a construction permit shall pay fee as follows. The applicant shall pay only the highest appropriate fee pursuant to paragraphs 1. to 3. of this subsection, regardless of the extent of additional planned construction as part of the same application.

1. One thousand dollars (\$1,000) for a construction permit for a wastewater treatment plant if the design flow is less than five hundred thousand (500,000) gallons per day;

2. Three thousand dollars (\$3,000) for a construction permit for a wastewater treatment plant if the design flow is equal to or more than five hundred thousand (500,000) gallons per day; or

3. Three hundred dollars (\$300) for a construction permit for a sewer extension of more than one thousand feet (1,000 ft) in length or have two (2) or more lift stations.

(K) Persons applying for a variance shall pay a fee of two hundred fifty dollars (\$250).

(3) Operating Fees.

(A) All persons who are subject to fees under section 644.052.2, 644.052.4, or 644.052.5, RSMo, shall remit their first annual fee with their original application and pay an annual fee each year on the anniversary date of their permit. Permittees with permits in effect at the time these sections become effective shall remit annual fees on the anniversary date of the permit. The permit issue date that was in effect on October 1, 1990 shall be the anniversary date during the effective period of section 644.052, RSMo.

(B) All persons who require permits, other than a general permit, for facilities that do not normally discharge such as land application facilities, sludge disposal facilities, agrichemical facilities, and no-discharge facilities are subject to fees as follows:

1. Fees are based on the design flow of the wastewater being handled; and

2. Fees for sludge or solids disposal facilities are based on the combined total design flow of the wastewater treatment facilities from which the sludge or solids are removed.

(4) General Permits and Fees.

(A) Persons with more than one (1) point source shall obtain a general permit for each point source or specific area. Where

there are multiple releases from a single operating location, however, one (1) application may cover all facilities and releases.

(B) The department may issue general permits for the following types of discharges: storm water releases from limestone quarries; hydrostatic pressure checks of pipelines, tanks and related equipment; potable water treatment plants; private trout farms or hatcheries for flow through spring water; swimming pool discharges; emergency spill cleanup sites; storm water releases from facilities that store less than fifty thousand (50,000) gallons of petroleum with no other wastewater; storm water releases from municipalities and industries; domestic wastewater treatment facility with a flow of less than fifty thousand gallons per day (50,000 gpd), and clay pits or gravel washing operations.

(C) The department may issue general permits for the following types of discharges within a given specific area: storm water release points owned or operated by a utility company (a permit will be issued for each county, or the City of St. Louis, in which the utility operates); intermittent releases from the maintenance dredging of lakes owned or controlled by a city, local unit of government, or home owners association within their boundaries.

(5) Construction Fees.

(A) Construction permit fees shall be tendered together with the construction permit application. Incomplete construction permit applications and related engineering documents will be returned by the department if they are not completed in the time frame established by the department in a comment letter to the owner. Construction permit fees for returned applications shall be forfeited.

(B) Application fees for construction applications being processed by the department that are withdrawn by the applicant shall be forfeited.

(C) Fees for construction permit applications for modification to an existing sewage treatment plant shall be based on the design flow of the plant after the modifications are completed.

*AUTHORITY: section 644.054, RSMo Supp. 2018. * Emergency rule filed July 27, 1990, effective Sept. 12, 1990, expired Jan. 10, 1991. Original rule filed July 17, 1990, effective Dec. 31, 1990. Amended: Filed July 15, 1991, effective Jan. 13, 1992. Amended: Filed Nov. 22, 1991, effective May 14, 1992. Amended: Filed Nov. 9, 2000, effective July 30, 2001. Amended: Filed Sept. 16, 2013, effective May 30, 2014. Amended: Filed June 13, 2018, effective Feb. 28, 2019.*

**Original authority: 644.054, RSMo 1990, amended 1994, 2000, 2006, 2009, 2010, 2011, 2013, 2018.*

10 CSR 20-6.015 No-Discharge Operations and Land Application Requirements

PURPOSE: This rule sets forth the requirements for no-discharge operations or operators seeking to perform land application of domestic, non-domestic, or industrial wastewater, or to hold or commingle such liquids or solids.

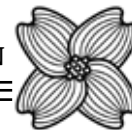
(1) Definitions.

(A) Definitions as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 shall apply to those terms when used in this regulation.

(B) Other applicable definitions are as follows:

1. No-discharge facility. A facility designed, constructed, and operated to meet each of the following conditions:

A. To hold or irrigate, or otherwise manage without



discharge to surface or subsurface waters of the state all process wastes and associated storm water flows except for discharges that are caused by catastrophic and chronic storm events;

B. Process wastes are not land applied during frozen, snow-covered, or saturated soil conditions; and

C. Basins are sealed in accordance with 10 CSR 20-8 and there are no subsurface releases in violation of 10 CSR 20-7.015 or section 577.155, RSMo.

2. Land application of wastewater or treatment residual materials. A treatment methodology that uses soils, vegetation, or agricultural commodities to manage and remove pollutants, including nutrients, from wastewater or treatment residuals. This rule does not apply to the underground injection of wastewater or wastewater treatment residuals as regulated under the federal Clean Water Act and 40 CFR Part 144.

A. Land application is only an appropriate treatment option when the land application activity supports agricultural practices or approved beneficial purposes and is appropriately monitored and assessed.

B. Land application irrigates, spreads, places, knives-in, incorporates, or otherwise puts or distributes material that appropriately, through best management practices, utilizes and removes pollutants from wastewater and other process wastes.

C. Land application must provide a benefit to the soils, vegetation, or a specific agricultural commodity without harmful impacts to public health and the environment.

(2) General.

(A) All persons who operate, use, or maintain water contaminant sources, point sources, or operating locations for storage, treatment or land application of process wastes which are operated so as not to discharge to waters of the state or will have infrequent discharges shall apply for permits unless exempted under section (3) of this rule.

(B) Nothing shall prevent the department from taking action to ensure that the operations or activities listed in subsection (A) do not discharge into waters of the state, including requiring permits for operations normally exempted under this rule. Permits may be required where necessary to protect the environment, including the following:

1. To correct noncompliance;

2. To ensure when the department has determined that construction or operating practices are not adequate, that the facility will be operated in a no-discharge manner;

3. To require, by departmental determination from an on-site visit, that construction and operating permits are necessary for special operating controls or monitoring and reporting of site-specific conditions such as groundwater effects, surface runoff, waste or wastewater characteristics, topography, geology, watershed factors, or land application loading rates;

4. When an unauthorized discharge has occurred or has the potential to occur;

5. When a discharge results in violation of water quality standards under 10 CSR 20-7.031; or

6. Other relevant factors.

(3) Exemptions.

(A) *De minimis* exemption. For the purposes of this rule, a *de minimis* source is a wastewater or process waste source, or a facility for treatment or disposal of process wastes, that is determined by the department to pose a negligible potential impact on waters of the state, soils, crops, public health, or

the environment, even in the event of the malfunction of wastewater treatment controls. Persons may apply to the department for an exemption as a *de minimis* source for operations that will not discharge or will have a negligible impact on waters of the state, soils, crops, public health, or the environment such as short duration, limited pollutant events. The department shall make a written determination on a case-by-case basis, and the department's denial or approval must itemize the relevant conditions, activities, and materials. This determination shall consider the potential for releases to surface water and groundwater of contaminants in concentrations exceeding background water quality levels or limitations in the water quality standards rule under 10 CSR 20 Chapter 7. Prior to approval, the department may require sampling and test methods, as determined appropriate for the proposed activity.

(B) The following are exempt from no-discharge and land application permit requirements unless required under section (2):

1. Nonpoint sources;

2. Land application of composts and mulches in normal farming operations or horticulture operations provided that the compost does not contain more than five percent (5%) sewage sludge or industrial sludge, which may only come from on-site processes;

3. Land application sites for beneficial use of water treatment plant residues removed during the treatment of drinking water supplies provided that aluminum or other potentially phytotoxic compounds are not present in the residuals in concentrations which would result in toxicity to plants or animals or have harmful impacts on waters of the state, human health, or the environment. The land application of water treatment plant residuals removed during the treatment of drinking water supplies not permitted under the Missouri Clean Water Law must submit sampling data prior to the material(s) being initially land applied and thereafter as determined by the department. This exemption does not apply to treatment or storage facilities;

4. No-discharge facilities for the handling, use, or disposal of solid wastes that holds a valid permit issued under the Missouri Solid Waste Management Law and regulations in accordance with 10 CSR 80 or the Missouri Hazardous Waste Management Law and regulations in accordance with 10 CSR 25;

5. Manure land application. Liquid manure from a concentrated animal feeding operation (CAFO) surface-applied on land application fields not under the operational control of the CAFO is exempt from permitting, but subject to the setback requirements in section 640.760, RSMo, where applicable. Requirements for CAFOs are contained in 10 CSR 20-6.300; other land application of manure from AFOs, or other agricultural operations not designated as CAFOs, is exempt from permitting;

6. No-discharge treatment works treating domestic sewage with wastewater flows of three thousand gallons per day (3,000 gpd) or less;

7. Composting sites of less than two (2) acres when sludges are less than five percent (5%) of the compost mix and from which no storm water is discharged except during a chronic or catastrophic storm event. Other storm water discharges are regulated under 10 CSR 20-6.200;

8. Land application of products containing or derived from sludges, biosolids or other process wastes when such products are licensed under the Missouri Fertilizer Law, sections 266.291 through 266.351, RSMo, and regulations, commercially sold,



individually labelled do not exceed pollutant standards for protection of public health and/or the environment as established by the department, and are applied at agronomic rates for agricultural purposes. To receive and maintain this exemption, the manufacturer or distributor shall submit an initial report to the department on the pollutant content of the product, practices for material sampling to ensure accuracy in labelling and packaging, and shall file annual reports as determined necessary by the department;

9. Single family residences;

10. Internal plumbing and piping or other water diversion or retention structures within a manufacturing or industrial plant or mine, which are an integral part of the industrial or manufacturing process or building or mining operation. This exemption does not include lagoon, ponds, or earthen impoundments which receive any process wastes;

11. Small scale pilot projects or demonstration projects for beneficial use that do not exceed a period of one (1) year may be exempted by written project approval from the permitting authority. The department may extend the permit exemption for up to one (1) additional year after review of the first year's results. A permit application shall be submitted at least ninety (90) days prior to end of the demonstration period if the facility intends to continue operation, unless otherwise exempted under this rule or Chapter 6;

12. An operating permit is not required for non-discharging wastewater or treatment residual holding structure(s) from which all contents are hauled to a treatment or disposal facility out of state or with a valid Missouri state operating permit issued under the authority of the Missouri Clean Water Law and regulations or Missouri Solid Waste Management Law and regulations. The holding structure(s) must be designed to 10 CSR 20-8 applicable design standards. The originator must have a written contract with the hauler;

13. Contract haulers are not required to have a permit under this rule if all waste is hauled to a facility permitted under a Missouri state operating permit or Missouri Solid Waste Management Law and regulations;

14. Activities or operational thresholds that are specifically exempted within a general permit;

15. The placement of uncontaminated soil, rock, sand, gravel, concrete, cinder blocks, bricks, recycled asphaltic pavement, and minimal amounts of wood and metal which are removed by demolition or construction activities and used as fill for construction projects, provided that placement of such material does not violate water quality standards as stated in 10 CSR 20-7.031. Storm water discharges may be regulated under 10 CSR 20-6.200;

16. The placement of material, other than those listed in paragraph (3)(B)15., which are exempt as clean fill or beneficial use under the Missouri Solid Waste Management Law and regulations, provided the material is not placed in contact with surface or subsurface waters of the state. Storm water discharges may be regulated under 10 CSR 20-6.200; and

17. Satellite collection systems that are properly operated and maintained so that all wastewater is entirely contained within the primary holding structures and emitted into a treatment works treating domestic sewage, without releases, leaks or spills into the environment or discharges into waters of the state. Satellite collection systems –

A. May include piping or conveyance systems that may be owned or maintained by a third party, and that collect wastewater prior to emission into the treatment works treating domestic sewage;

B. May include tanks, basins, pump stations, manholes

or access ports that may be owned, operated or maintained by a third party, that collect, treat or hold wastewater prior to emission into the treatment works treating domestic sewage; and

C. Do not include collection systems, equipment, or conveyances under the operational control of the treatment works treating domestic sewage.

(4) Operating Permits. This rule does not apply to concentrated animal feeding operations (CAFOs) subject to 10 CSR 20-6.300, stormwater discharges subject to 10 CSR 20-6.200, activities exempted in section (3), animal feeding operations not classified as CAFOs, or other nonpoint sources. The requirements in this rule apply to no-discharge facilities and activities and to land application sites, including those at discharging facilities.

(A) Operating permit applications. This subsection describes the application process and minimum application requirements for no-discharge operations and land application sites. Additional application requirements may be applicable to a facility if additional operations are occurring.

1. The application shall include at a minimum the following documentation:

A. Narrative operational summary. This shall describe the no-discharge operations, types and sources of materials to be managed or land-applied, storage plans, design capacity, and operational capacity;

B. Adequate storage for management or land application of wastewater, sludge, wastewater treatment residuals, and process waste for the intended design flows and capacity;

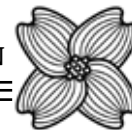
C. A recent aerial or topographic map showing the location of any intended storage structure(s), composting area(s), and land application fields, including setbacks established for –

(I) Treatment works treating domestic sewage, in 10 CSR 20-8.200; or

(II) Non-domestic wastewater and residuals, the *Missouri Industrial Nutrient Management Technical Standard for Industrial Wastewater and Wastewater Treatment Residuals* (INMTS). The INMTS required by this rule, Edition 1.0, is incorporated by reference herein as published by the Department of Natural Resources, Division of Environmental Quality, Water Protection Program, PO Box 176, Jefferson City, MO 65102-0176, October 2025, and does not include any later amendments or additions. The INMTS is available on the department's website.

D. Applications for land application from treatment works treating domestic sewage must ensure land application will meet the design and operational requirements in 10 CSR 20-8.200; biosolids must be land applied in accordance with permit conditions;

E. Land Application Management Plan (LAMP) for all fields to be used for land application of industrial wastewater, industrial wastewater treatment residuals, or process waste, excluding manure, CAFO operations, AFOs, and treatment works treating domestic sewage. The LAMP must comply with the requirements established in the INMTS, unless otherwise approved by the department, typically for facilities land applying wastewater that does not contain nutrients or significant concentrations of other pollutants (e.g., treated water for irrigation or non-metallic sediment from a quarry settling basin). This subparagraph does not apply to biosolids that are regulated under 40 CFR Part 503. Privately owned operating locations managing a combination of domestic wastewater or sludges and non-domestic wastewater or sludges may be subject to this requirement at the department's



discretion. Unless otherwise determined by the department, the LAMP shall include at a minimum –

(I) Site-specific conservation practices or operational management practices to prevent the direct runoff of land applied material and to minimize impacts to stormwater;

(II) Site-specific map(s) with sensitive features and setbacks;

(III) Field locations and field management plans used to establish land application rates for pollutant removal;

(IV) Calculations, data, and methods to be used to ensure appropriate management and removal of nutrients in the applied material; and

(V) Records that will be maintained to document implementation and management of the minimum elements described within this subparagraph.

F. Applications must be submitted on forms established by the department and must include information on potential pollutants in the wastewater or wastewater treatment residuals to be land applied.

(B) Minimum operating permit conditions.

1. There shall be no discharge or direct runoff of wastewater, wastewater treatment residuals, or other domestic or industrial wastes from the field as a result of the land application of these materials, excluding agricultural stormwater discharges.

2. The permits shall include conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment. These conditions include but are not limited to –

A. Sampling requirements, including parameters, frequency, and numeric limitations if warranted;

B. Land application minimum best management practices to appropriately conduct land application and prevent runoff;

C. Application must cease immediately if plant stress or phytotoxicity attributable to the application is observed, with land application resuming after plant recovery with land application rates reduced to prevent plant stress and phytotoxicity;

D. Application is not allowed on frozen, snow-covered, saturated soils;

E. Ponding of applied liquids is prohibited, except temporary ponding that does not leave the application area that absorbs into soil prior to the land applier leaving the field, and except for agricultural purposes where hydrophytic vegetation or crops are being established (such as rice);

F. Land application is an approved wastewater treatment method for pollutants, like nutrients, that can be effectively removed through soils, plants, and agronomic practices;

G. Land application is not allowed for the purposes of disposal, for the application of hazardous wastes, or for hazardous substances in amounts known to or having the potential to cause phytotoxicity or negative health or environmental impacts, or any other material deemed unsuitable by the department;

H. Adequately protective permit conditions must be established in land application areas where the Missouri Geologic Survey had determined geohydrological sensitive features are present; and

I. Incorporation of the INMTS.

3. A field permitted for the land application of industrial wastewater or wastewater treatment residuals shall only be incorporated into one (1) Missouri state operating permit.

(5) Excluding concentrated animal feeding operations (CAFOs), animal feeding operations not classified as CAFOs or other nonpoint sources, land application of non-domestic wastewater must be conducted in accordance with the INMTS or an approved LAMP. Land application shall also be conducted in accordance with the following:

(A) Land application rates based on hydraulic, pollutant, and nutrient loading rates;

(B) Specific numeric pollutant limits for select parameters;

(C) A minimum of annual soil sampling for nutrients and appropriate parameters, as determined by the department, frequency may be increased in accordance with the INMTS;

(D) Appropriate agricultural publications from the University of Missouri Extension center or other pre-approved related publications, to determine crop uptake and land application rates;

(E) Setbacks, minimum distances from identified features; and

(F) Established permit conditions protective of crops, soil and other earthen material, waters of the state, human health, and the environment.

(6) Specific requirements for commingled, offsite industrial wastewater or wastewater treatment residuals stored in open storage basins or open storage vessels. Volume is calculated by adding all of the open structure(s) occurring on one (1) operating location. Storage systems must, at a minimum –

(A) Meet the following buffer (setback) distances between the open structure(s) and any public building or occupied residence, other than a residence owned by the permittee, or from which a written waiver agreement is provided:

1. For structure(s) totaling a capacity of more than two and one-half million gallons (2.5 MG) but less than or equal to five million gallons (5 MG), one thousand feet (1000'); or

2. For structure(s) totaling a capacity of more than five million gallons (5 MG) but less than or equal to ten million gallons (10 MG), two thousand feet (2000'); or

3. For structure(s) totaling a capacity of more than ten million gallons (10 MG), three thousand five hundred feet (3500'); or

4. Written waiver agreements shall be recorded with the county recorder and filed in the chain of title for the property of the landowner agreeing to the shorter buffer distance;

(B) Sampling, analysis, and reporting of results must be conducted at least annually per 644.051, RSMo, with increased frequency as determined necessary in accordance with the INMTS for –

1. Metals, including arsenic, aluminum, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and thallium;

2. Pathogens, including *E. coli*, fecal coliform, and salmonella;

3. Other pollutants as determined by the department; and

(C) For systems equal to or greater than two and one-half million gallons (2.5 MG) storage capacity, groundwater monitoring wells shall be required when, in the determination of the division of Missouri Geological Survey, the storage structures are located in proximity to geological feature(s) that increase the likelihood of groundwater contamination.

(7) Groundwater monitoring and reporting requirements for operations subject to subsection (6)(C) and any other operation necessitating groundwater monitoring requirements as part of an assessment of a discharge to groundwater.

(A) Definitions for this section are found in 10 CSR 20-2 and



10 CSR 80-2. If conflicting definitions occur, the more stringent definition shall prevail.

(B) The permittee shall submit, unless exempted by the department, the following two (2) reports, approved by the department, which may be furnished concurrently, along with any additional reports the department deems necessary:

1. A site characterization report (SCR) signed and sealed by a geologist registered in Missouri; and
2. A groundwater monitoring sampling and analysis plan (GMSAP).

(C) If the monitoring well network has already been installed, the department will coordinate with the permittee to determine if any additional wells are needed or may require additional reports to determine effectiveness of the monitoring well network.

(D) At a minimum, the following characteristics will be described in the SCR:

1. Geologic materials;
2. Description of soil and bedrock to a depth adequate to allow evaluation of water quality protection provided by the soil and bedrock;
3. Groundwater elevation;
4. Proposed separation between the lowest point of the lowest structure and the maximum water table elevation;
5. Proximity of the structure(s) to water supply wells or surface water;
6. Rate and direction of groundwater flow in each relevant hydrostratigraphic unit; and
7. Current and projected use of water resources in the potential zone of influence of the point source(s).

(E) Groundwater monitoring wells shall be installed so that the number, spacing, and depths of the wells, determined based upon site-specific technical information, shall include a thorough characterization of –

1. Aquifer thickness, groundwater flow rate, groundwater flow direction, including seasonal and temporal fluctuations in groundwater flow; and
2. Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including but not limited to thicknesses, stratigraphy, lithology, hydraulic conductivities, and porosities. If the lower confining unit is one hundred feet (100') or more below the top of the uppermost aquifer, borings verifying the lower confining layer will not be required. The upper fifty feet (50') of the uppermost aquifer will be characterized.

(F) Groundwater monitoring wells shall be capable of yielding groundwater samples for analysis, effective monitoring of the site, and consist of at least one (1) well installed hydraulically upgradient, that is, in the direction of increasing static head from the point source(s); and at least two (2) wells installed hydraulically downgradient, that is, in the direction of decreasing hydraulic head from the point source(s); more wells may be required if determined necessary to adequately assess potential groundwater impacts. The quantity of wells, locations, and depths shall be sufficient to yield groundwater samples that are –

1. Representative of background water quality in the groundwater near the point source(s);
2. Capable of detecting any significant amounts of fluids generated by the structure(s) that migrate from the point source(s) to the groundwater;
3. Capable at a minimum of monitoring all saturated zones down to and including the uppermost aquifer; and

4. Located from the point source(s) a maximum distance of one hundred fifty meters (150 m) or four hundred ninety-two feet (492').

(G) The design and installation of groundwater monitoring well systems shall be observed, supervised, and certified by a Missouri groundwater professional, and the monitoring well system shall be approved by the department prior to installation. Additional wells may be required by the department at any time if the existing network is insufficient.

(H) The permittee shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells shall be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow direction.

(I) Sampling and reporting.

1. Each groundwater monitoring event must include consistent sampling and analysis procedures that are designed to ensure monitoring results provide an accurate representation of groundwater quality at the monitoring wells. The monitoring frequency will be determined by the department based on the site-specific factors, in no case less than annually.

2. The permittee shall submit the GMSAP to the department for approval. The GMSAP shall include procedures and techniques for each monitoring event, including –

- A. Monitoring well maintenance, if performed;
- B. Monitoring well redevelopment, if performed;
- C. Monitoring well depth measurement and hydraulic

levels;

D. Monitoring well purging and sampling utilizing dedicated equipment, or the appropriate decontamination procedures;

- E. Equipment calibration;
- F. Decontamination and field blanks;
- G. Sample and duplicate sample collection;
- H. Sample preservation;
- I. Sample labeling;
- J. Sample handling;
- K. Field measurements;
- L. Field documentation;
- M. Chain of custody control;
- N. Sample shipment;
- O. Analytical procedures;
- P. QA/QC control – field, samples, and laboratory.

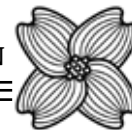
3. The GMSAP shall include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure monitored constituents in groundwater samples, as required by the department. The plan shall include the anticipated parameters of concern for the specific facility. Analysis shall be performed on unfiltered samples (except for those occurring in the dissolved fraction, e.g., hexavalent chromium) for all constituents listed in the GMSAP.

4. Once approved, the GMSAP shall be followed by the permittee and any deviation from the GMSAP requirements shall be noted and submitted to the department with the monitoring results.

5. Reports shall be furnished to the department at intervals necessary to determine compliance with Missouri's Groundwater Water Quality Standards, in no case less than annually.

(8) Closure of Waste Storage Structures.

(A) No-discharge facilities that cease operation, or plan to close lagoons and other waste storage structures, shall comply



with 10 CSR 20-6.010(12) as well as the following requirements:

1. Facilities that are exempted from permits under this rule and that cease operation shall either close the waste storage structures in accordance with subsection (8)(B) of this rule or continue to maintain all storage structures so that there is not a discharge to waters of the state.

(B) Closure requirements. Lagoons and waste storage structures shall be closed by removal and land application of all wastewater and sludges, or in accordance with an alternate closure plan approved by the department. The removed wastewater and sludges shall be land applied in accordance with the INMITS, department-approved LAMP, or department-approved closure plan. After removal and proper land application of wastewater and sludge, the earthen basins may be –

1. Demolished by removing the berms, grading, and revegetation of the site so as to provide erosion control; or

2. Left in place for future use as a farm pond or similar uses or reserved for future use as a waste storage structure. To prevent damage to the bottom seal due to drying and weed growth, earthen basins shall be refilled with fresh water as soon as possible, and water depths of three feet (3') or more should be maintained.

AUTHORITY: section 644.026, RSMo 2016, and sections 644.041 and 644.051, RSMo Supp. 2025. Original rule filed July 15, 1991, effective Jan. 13, 1992. Amended: Filed June 1, 1995, effective Jan. 30, 1996. Amended: Filed Nov. 3, 1997, effective July 30, 1998. Amended: Filed June 13, 2018, effective Feb. 28, 2019. Amended: Filed July 14, 2025, effective Feb. 28, 2026.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014; 644.041, RSMo 1972, amended 1973, 2024; and 644.051, RSMo 1972, amended 1973, 1982, 1990, 1999, 2000, 2002, 2006, 2011, 2012, 2013, 2014, 2015, 2023, 2024.*

10 CSR 20-6.020 Public Participation, Hearings, and Notice to Governmental Agencies

PURPOSE: This rule sets forth the procedures the department will follow in providing opportunity for participation by the public and other governmental agencies during the permit issuing process. This rule clarifies the process. This rule also addresses the procedures for appeals to the Clean Water Commission from departmental actions.

(1) Public Participation.

(A) The department shall review applications for Missouri state operating permits and shall review other relevant facts to determine whether or not the Missouri state operating permits should be issued. When all required and requested information has been received, the department shall prepare the following documents as needed:

1. A draft operating permit containing the following elements:

- A. Terms and conditions of the permit;
- B. Effluent limitations, standards, and other requirements;
- C. Applicable compliance schedules; and
- D. Monitoring requirements; and

2. If the draft operating permit is for a major facility or a general permit or if it incorporates any variances or modifications, or if the regional administrator or director finds it is the subject of widespread public interest, the department will prepare a fact sheet. The fact sheet shall include –

- A. A brief explanation of the express statutory or regula-

tory provisions on which permit requirements are based;

B. Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions, including a citation to the applicable guideline, development documents, or standard provisions and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed;

C. Where appropriate, a sketch or detailed description of the location of the discharge described in the application;

D. A quantitative description of the discharge described in the application and of the activities that lead to the discharge;

E. Reasons requested variances or modifications do or do not appear justified; and

F. Name and telephone number of a person who can provide additional information.

(B) Public Notice for Site Specific Permits.

1. A public notice of permit pending will be prepared by the department. Except for minor modifications there shall be a period of not less than thirty (30) days following the date of the public notice when interested persons may submit their written views on the proposed permit. The term, minor modifications, is defined in 40 CFR 122.63, October 22, 2015, which is hereby incorporated by reference in this rule, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004. This rule does not incorporate any subsequent amendments or additions. The department will issue or deny the permit within sixty (60) days after all requirements of the Federal Clean Water Act, the Missouri Clean Water Law and those regulations concerning the issuance of permits have been satisfied.

(C) Public Notice for General Permits.

1. Public notice of newly created statewide general permit, or the reissuance of an existing statewide general permit, shall be prepared by the department in accordance with subsections (1)(B) and (D) of this rule.

2. For issuance of the initial individual general permit for any newly constructed water contaminant source, point source, or wastewater treatment facility, public notice shall occur in accordance with subsections (1)(B) and (C) of this rule. This applies to the following general permits:

- A. Airports;
- B. Chemical manufacturing;
- C. Fabricated structured metal;
- D. Foundries;
- E. Limestone and rock quarries;
- F. Lubricant manufacturing;
- G. Petroleum storage greater than fifty thousand (50,000)

gallons; and

H. Wood treaters;

I. Commingled, offsite industrial wastewater or wastewater treatment residuals stored in open storage basins or open storage vessels.

3. As new general permits are created, the need for an individual facility public notification process shall be determined and identified in the general permit.

(D) The public notice of permit pending will contain at least the following:

1. Name, address, telephone number of the department, and any other places at which interested persons may obtain further information, request copies of the draft permit and the fact sheet, and inspect and copy related forms and documents;

2. Name and address of the applicant and responsible authority, and address of the discharger if different from the applicant;

3. Brief description of the applicant's activities or operations



which result in the discharge or potential discharge described in the application;

4. Name of watercourse to which the applicant will discharge, a description of the location of the discharge and designation of the discharge as new or existing;

5. A statement of the tentative determination to issue a permit;

6. A brief description of the procedures for making final determination, including the thirty- (30-) day comment period and any other means by which interested persons may influence or comment upon the making of the determinations; and

7. The name and address of the office processing the application.

(E) Notice of permit pending will be posted on the department webpage. The department may request posting of a physical notice of Permit Pending in order to accommodate for certain groups determined by the department.

1. Posting in the post office and public places of the municipality nearest the proposed discharge;

2. Posting near the entrance to the applicant's premises; and

3. The department webpage.

(F) The notice shall be mailed, or emailed, by the department to persons who have notified the department of their interest or who have requested the notice.

(G) The department, upon request, shall add the name of any person or group to an email list to receive copies of notices for all applications within the state.

(H) All relevant and material comments received pursuant to the public notice shall be given consideration by the department before making a final decision. When significant water quality concerns are raised during the comment period the department may hold a public meeting to discuss the applications. The department does not have jurisdiction to address questions of zoning, location, property values or other nonwater quality related items.

(2) Notice to Other Governmental Agencies. Notices to governmental agencies shall conform to the stipulations outlined in federal regulation 40 CFR 124.59 "Conditions requested by the Corps of Engineers and other government agencies," January 4, 1989, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408, which is incorporated by reference and does not include later amendments or additions.

(3) Public Access to Information.

(A) Any information or records submitted or obtained pursuant to Chapter 644, RSMo, may be subject to public disclosure pursuant to Chapter 610, RSMo. Information other than effluent data, support documents or reports contained in any issued permit or document in the water protection program may be made confidential upon a showing that methods or processes entitled to protection as trade secrets would be revealed if the information were made public. The department shall make the final determination of confidentiality.

(B) The department shall provide for public inspection and copying of information relating to these documents.

(4) Public Participation Process.

(A) Department of Natural Resources (DNR) Hearing.

1. An opportunity shall be provided for the applicant, any affected state, any affected interstate agency, the regional administrator, or any interested agency, person, or group of persons to request or petition for a public hearing with respect to the application. Any request for a public hearing shall be

filed with the department within the comment period and shall indicate the interest of the party filing the request and the reasons why a hearing is warranted. The department shall hold a public hearing if there is significant technical merit and concern related to the responsibilities of the Missouri Clean Water Law. Instances of doubt shall be resolved in favor of holding the hearing. Any public hearing shall be held in the geographical area of the proposed discharge or other appropriate area. An appeal filed upon the issuance of a construction permit will be considered as an appeal of the construction permit and the first operating permit.

2. At least thirty (30) days before any hearing, notice of hearing shall be published in at least one (1) newspaper of general circulation in the geographical area of the discharge and mailed, or emailed, to any person or group on request and to all persons, groups, and agencies who received a copy of notice or fact sheet for the proposed permit. In any case, notice shall be at least as broad as was the notice of permit pending. The notice shall contain at least the following:

A. Name, address, and telephone number of the department;

B. The proposed permit facility name, address, and responsible authority;

C. Information regarding the time, location, and purpose for the hearing; and

D. The webpage address for additional detailed information on the draft Missouri state operating permit. Those without access can request information by contacting the department using the contact information in the notice.

(B) Clean Water Commission hearings for regulation development, fact finding, and other nonjudicatory matters will be held in conformance with Chapter 644, RSMo.

(C) Clean Water Commission hearings on permit issues, abatement orders, and other judicatory type matters will be held in conformance with Chapters 536 and 644, RSMo.

(5) Time Limits for Appeals for Abatement Orders, Permit Denials, and Variances.

(A) The thirty (30)-day time limit provided for the filing of appeals to the commission as established by section 644.056.3, RSMo, for appeals of abatement orders; section 644.051.6, RSMo, for appeals from denials of permits; section 644.061.5, RSMo, for appeals from the recommendation to grant or deny variances; and 10 CSR 20-6.060(5) for appeals from the denial of water quality certifications shall be computed from the day of service of the notice of the order or issuance or denial of the variance or denial of the permit or water quality certification, as the case may be.

(B) Service of the notice may be accomplished by either hand delivery or certified mail, return receipt requested, or emailed with receipt confirmation.

1. Service by hand delivery.

A. Service by hand delivery is accomplished when a copy of the notice is tendered to –

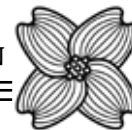
(I) The applicant or permittee or other affected person or with some person of his/her family over the age of fifteen (15) years and residing in his/her dwelling, house, or usual place of abode;

(II) An officer of a corporate applicant or permittee or other affected person;

(III) A partner of a partnership applicant or permittee or other affected person;

(IV) A managing or general agent of the applicant or permittee or other affected person;

(V) A registered agent or any other agent of the applicant or permittee or other affected person authorized by appointment or required by law to receive the notice; and



(VI) Any person in charge of the water contaminant or point source of the applicant or permittee or other affected person.

B. The person who effects service by hand delivery shall state the time, place, and manner of service in a signed file memorandum or other writing.

C. The accomplishment of service of notice by hand delivery is not altered by the refusal of the person to be served to receive the notice when this fact is shown on the return.

2. Service by certified mail.

A. Service by certified mail is accomplished by mailing a copy of the notice by certified or registered mail, return receipt requested, to any of the persons listed in parts (5)(B)1.A.(I)–(VI) of this rule.

B. Service by mail is complete on the delivery date shown on the return receipt, or on the date of refusal as shown on the envelope of the returned notice.

3. Emailed with receipt confirmed.

A. Service by email is accomplished by emailing a copy of the notice with a read receipt requested to any of the persons listed in parts (5)(B)1.A.(I)–(VI) of this rule and is complete when the email is received, either acknowledged in writing or through the read receipt.

(C) The appeals previously referenced in subsection (5)(A) of this rule may be made by the applicant, permittee, person named in the order or any other person with an interest which is or may be adversely affected. The appeal shall be filed with the Administrative Hearing Commission, 131 W. High St., PO Box 1557, Jefferson City, MO 65101 and shall be received by the Administrative Hearing Commission prior to expiration of the thirty- (30-) day appeal period as computed in subsection (5)(A). The appeal shall be a contested case and shall be conducted under section 644.066, RSMo.

(6) Time Limits for Appeals of Conditions in Issued Permits.

(A) The thirty- (30-) day limit provided for the filing of appeals to the commission established by sections 640.010.1 and 644.051.6, RSMo, for appeals of conditions in issued permits shall be computed from the day of service of notice.

(B) Service of the notice shall be accomplished in accordance with subsection (5)(B) of this rule.

(C) The appeals referenced previously in subsection (6)(A) of this rule may be made by the applicant, permittee, or any other person with an interest which is or may be adversely affected. The appeal shall be filed with the Administrative Hearing Commission, 131 W. High St., PO Box 1557, Jefferson City, MO 65101 and shall be received by the Administrative Hearing Commission prior to expiration of the thirty- (30-) day appeal period as computed in subsection (5)(A). The appeal shall be a contested case and shall be conducted under section 644.066, RSMo.

(7) Appeals made under sections (5) and (6) of this rule shall conform to the requirements of the Administrative Hearing Commission regulation 1 CSR 15-3.350, effective March 30, 2017.

*AUTHORITY: section 644.026, RSMo 2016. * Original rule filed June 19, 1974, effective June 29, 1974. Rescinded: Filed Oct. 16, 1979, effective July 11, 1980. Readopted: Filed Feb. 4, 1980, effective July 11, 1980. Amended: Filed May 10, 1984, effective Oct. 15, 1984. Amended: Filed Feb. 1, 1988, effective June 13, 1988. Amended: Filed March 1, 1996, effective Nov. 30, 1996. Amended: Filed July 9, 1998, effective March 30, 1999. Amended: Filed June 13, 2018, effective Feb. 28, 2019. Amended: Filed July 30, 2019, effective April 30, 2020. Amended: Filed July 15, 2025, effective Feb. 28, 2026.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments

PURPOSE: This rule sets forth requirements for developers of residential housing to determine the method of wastewater disposal. This rule applies to all new residential housing developments and existing subdivisions that were required to comply with previous regulations which were effective June 30, 1974, June 26, 1975, May 15, 1984, or March 30, 1999, but have not received department approval.

(1) General Requirements.

(A) Definitions.

1. Definitions as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 shall apply to those terms when used in this rule.

2. Common promotional plan. A plan, undertaken by one (1) or more persons, to offer individual lots or residential housing units within a residential housing development for sale or lease; where land is offered for sale or lease by a person or group of persons acting in concert, and the land is contiguous or is known, designated, or advertised as a common unit or by a common name or similar names, the land is presumed, without regard to the number of lots or residential housing units covered by each individual offering, as being offered for sale or lease as part of a common promotional plan. State and county roads are not considered property boundaries.

3. Developer. Any person or group of persons who, directly or indirectly, sells or leases, or offers to sell or lease, any lots, residential housing units, or recreational camping sites, but not to include any licensed broker or licensed salesman who is not a shareholder, director, officer, or employee of a developer and who has no legal or equitable interest in the land.

4. Limiting layer. Any soil horizon that will severely limit the soil's ability to treat or dispose of effluent. The limiting layer may include a restrictive horizon or permanent or seasonal high water table as defined in 19 CSR 20-3.060(1)(A).

5. Lot. Any portion, piece, division, unit, or undivided interest in real estate, if the interest includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity.

6. Residential housing development. Any land which is divided or proposed to be divided into three (3) or more lots, whether contiguous or not, for the purpose of sale or lease as part of a common promotional plan.

(B) Applicability. Unless specifically provided otherwise, this rule shall apply to any developer who owns or controls land and –

1. Develops or divides land into residential housing lots;

2. Resubdivides land into more lots, adds additional lots to which when added to an existing group of lots which are contiguous, or which are known, designated or advertised as a common unit or by a common name, as part of a common promotional plan, will in total constitute a residential housing development; and

3. Any expansion of three (3) or more lots in any subdivision or development will be subject to this rule.

(C) Exemptions. The following subdivisions or residential housing developments are exempted:

1. Subdivisions in which control of more than twenty percent (20%) of the lots was permanently relinquished prior to July 1, 1974;

2. Subdivisions which were approved or exempted by the department under the subdivision regulations which were effective June 30, 1974, June 26, 1975, May 15, 1984, or March



30, 1999;

3. Residential housing developments with less than fifteen (15) lots in existence prior to March 30, 1999;

4. Lots of five (5) acres and larger in residential housing developments;

5. Residential housing developments located in areas where the department has determined that the local administrative authority has a local program sufficient to meet the goals of this rule;

6. If a developer proposes a centralized wastewater collection and treatment system, the requirements of this rule shall be considered met, provided that all other requirements of the Missouri Clean Water Law and regulations can be satisfied and continuing authority, in accordance with 10 CSR 20-6.010, will be established prior to the sale or lease of lots or the commencement of construction of residences; and

7. Recreational developments will be subject to section (5) of this rule.

(D) Approval. Unless exempted in this rule, the developer of any residential housing development shall obtain approval from the department for the method of sewage treatment and disposal to be used in the development prior to the sale or lease of any lot or the commencement of construction on any lot by the developer or any person. To obtain approval the developer must submit to the appropriate DNR office a copy of the geohydrologic evaluation, the soils report, and the plat map as described in this rule.

1. The developer may apply for approval to use individual on-site systems in the proposed development provided that the minimum lot size is forty thousand (40,000) square feet. For residential housing developments with lots of less than forty thousand (40,000) square feet (0.92 acres), only centralized sewage collection and treatment are acceptable for the development. However, this minimum lot size does not apply to residential housing developments that do not require approval. Construction and operating permits will be required for central sewage collection and treatment systems.

2. Only residential housing developments with seven (7) or more lots must receive approval for the method of sewage treatment and disposal prior to the sale or lease of any lots.

(E) Alternative Determination.

1. An alternative determination can be requested for a lot or group of lots that were conveyed to a person who is not defined as a developer and that lot is within a residential housing development that was in existence prior to January 30, 2025, and was required to receive written approval for the method of wastewater treatment under this rule but did not.

2. An alternative determination under this rule should not be construed as an exemption, waiver, or approval for the method of wastewater treatment but as a process to address noncompliance. The department will send a written acceptance or rejection of the application for alternative determination, as well as information regarding the decision.

3. An alternative determination can be given for a lot or group of lots where an on-site wastewater treatment system was installed when it can be demonstrated to the department that the installation of the system was permitted by the appropriate state or local on-site wastewater administrative authority following the criteria contained in their regulations effective at the time of installation and that there is no violation of the Missouri Clean Water Law or its regulations including but not limited to the surfacing of effluent on an individual lot or the discharge of effluent to waters of the state.

4. An alternative determination can be given for an undeveloped lot or group of lots that had been conveyed to

a person not defined as a developer, but the determination does not guarantee that the state or local on-site wastewater authority will issue a permit to construct an on-site wastewater treatment system under their current regulations.

5. Information that will aid the department when making an alternative determination should include but is not limited to county name; developer's name and contact information; development's name; physical location – section, township and range, latitude and longitude, or physical address; current plat on file with the County Recorder's Office; lot size; nature of use; reported water supply; available documentation related to the installation of the on-site wastewater treatment system if installed; site-specific soils documentation if available; and other applicable documentation. If available, this information is to be provided by the requester.

6. As part of an alternative determination, the department may request that the Missouri Geological Survey conduct a geohydrologic evaluation for the lot(s) conveyed to a person who is not defined as a developer.

7. Alternative determinations will include information concerning proper operation and maintenance of an on-site wastewater treatment system as well as ways to identify a failing system. A lot owner shall notify the state or local on-site wastewater administrative authority when an on-site system is failing and shall address any malfunction(s) within a time set by the applicable administrative authority to minimize impacts to public health and the environment.

8. The lot(s) still under the control of a developer within a residential housing development, that was required to receive written approval for the method of wastewater treatment but did not, shall remain subject to the criteria contained in other sections and subsections of this rule.

(2) Geohydrologic Evaluation.

(A) All developers required to abide by this rule shall apply for a geohydrologic evaluation pertaining to the use of on-site wastewater treatment facilities from the Department of Natural Resources, Missouri Geological Survey, Geological Survey Program (GSP). The evaluation will include a review of available geologic data and may include a field evaluation conducted by the GSP.

1. A written request for the geohydrologic evaluation must be submitted on forms provided by the department and within forty-five (45) days the developer will be notified in writing by the department of the results.

2. The request for a geohydrologic evaluation shall include a map of the proposed development along with the legal description, total number of acres, and type of water supply being proposed.

(B) Residential housing developments may be exempted from obtaining the geohydrologic evaluation in areas where bedrock and surficial materials exhibit low overall permeability and groundwater recharge is limited, or the groundwater gradient is low and groundwater velocity is slow. A determination of whether a residential housing development meets the criteria for an exemption from obtaining a geohydrologic evaluation will be determined by GSP based on the information supplied on the request form and data on file at GSP.

(3) Soils Report.

(A) A soils report for each residential housing development must be prepared by a soil scientist as defined in 19 CSR 20-3.080. The report must indicate if the proposed system is a soil absorption system or other system (lagoon). The soils report can be generated only after a thorough, systematic



investigation of the soil properties and landscapes in the proposed development. Soil observation pits (backhoe or hand dug) dug to a depth to reveal the major soil horizons shall be utilized. The minimum number of pits shall be one (1) every ten (10) acres; however, in developments with the majority of lots less than two (2) acres, the minimum number of pits shall be one (1) every five (5) acres. These pits may be supplemented by soil borings to help determine the extent of similar soil properties. Profile descriptions which include horizon designations, depth, color, texture, structure, consistence, coarse fragments, mottling, and other pertinent features shall be submitted.

1. The soils report shall contain a topographic map delineating the proposed development into the following slope categories: zero to two percent (0-2%), three to fourteen percent (3-14%), fifteen to thirty percent (15-30%), and thirty-one percent (31%) and greater.

2. A map delineating the depth of acceptable soil into the following categories: less than eighteen (18) inches, eighteen to thirty (18-30) inches over bedrock, eighteen to thirty (18-30) inches over a limiting layer, and greater than thirty (30) inches shall also be provided.

3. Table 1 shall be used to determine the minimum lot size based on soil properties and site conditions. More than fifty percent (50%) of each lot must be in a single acreage category or more than fifty percent (50%) may be in that and smaller acreage categories in order to use that minimum-sized lot.

Table 1

Minimum Lot Size (Acres) for Soil Absorption Systems Based on Soil Depth and Slope

		Acceptable Soil (Inches)			
		>30"	18-30" Limiting Layer	18-30" Bedrock	<18"
Slope (%)	0-2	0.92	2	2	3
	3-14	0.92	1	2	3
	15-30	1	2	3	5
	31+	2	3	5	>5

4. Lots with less than eighteen (18) inches of acceptable soil should be evaluated carefully to determine if a soil absorption system will function properly on the site. It must be shown that mitigation of the limiting soil condition is a feasible option. Lots with less than twelve (12) inches of acceptable soil will not be approved for soil absorption systems unless the limiting condition is a high water table and the soil scientist determines that water table lowering schemes may be effective.

(B) Acceptable soil will have the following properties:

1. Any structure except strong platy or massive;
2. Fifty percent (50%) and less coarse fragments greater than two millimeters (>2 mm);
3. No limiting layer; and
4. Available area and landscape position suitable for an on-site system.

(C) Wastewater stabilization ponds (lagoons) may be allowed for the single-family residence wastewater treatment facilities if local regulations do not prohibit them.

1. Minimum lot size for lagoons is two and one-half (2.5) acres; larger lot sizes are recommended in order to provide for all wastewater to be contained on the lot and handled in a manner that there will be no violation of the Missouri Clean Water Law and regulations.

2. Report must show that the soils, available area and landscape position is suitable for lagoons. A minimum of four feet (4') of soil is required if the natural soil is to be used as the liner. Strongly sloping areas should be avoided. Areas with slopes greater than fifteen percent (15%) will not be considered suitable for lagoons.

(4) Plat Map.

(A) A map drawn to a scale of one inch (1") equals from fifty to two hundred feet (50-200') showing the location of the individual lots, roads, existing wells, and known easements shall be provided. The number of lots, lot sizes and type of water supply shall also be provided. A copy of the United States Geological Survey topographic map and the soil map and legend from the United States Department of Agriculture County Soil Survey if available must be provided with the area of development clearly outlined.

(5) Recreational Development.

(A) A development is considered recreational when land is sold or leased for the purpose of camping in recreational vehicles. In order to be considered a recreational development, restrictive covenants must prohibit continuous year-round living on the lot and no cabins or other structures will be allowed that could be used for year-round residential purposes.

1. The minimum lot size for a recreational development that will use individual on-site wastewater treatment facilities is twenty thousand (20,000) square feet. No reduction will be allowed from the minimum lot size determined by the geohydrologic evaluation. A one-half (1/2) reduction in minimum lot size as indicated by the soils report may be allowed.

2. In recreational developments where sewage collection and treatment is provided by sewage dump stations, the sewage dump stations will be considered centralized sewage collection and treatment for the purposes of compliance with this rule.

3. The developer must submit a copy of the restrictive covenants along with any plans for sewage dump stations or centralized sewage collection and treatment systems.

(6) Department Review.

(A) The department shall determine if the requirements of this rule are satisfied. Minimum lot size will be the larger of the values calculated in the geohydrologic evaluation if required or the soils report. Approval under this rule does not guarantee that each lot in the residential housing development will be approved for a soil absorption system.

(B) The developer of any residential housing development required to obtain approval from the department shall obtain written approval and comply with all conditions and requirements set forth in writing by the department as contained in the Missouri Clean Water Law and corresponding regulations prior to the sale or lease of any lot or the commencement of construction on any lot by any developer(s) or owner(s).

(C) There shall be no deviation or change that may adversely affect the geohydrologic evaluation, lot sizes, number of lots, or the proposed water supply for a residential housing development following departmental approval without first securing written approval of the proposed changes from the department.

(D) Within ninety (90) days of receipt of the completed requirements and any other documents or information required in this rule by the department, the department will approve or disapprove the wastewater disposal plans and attach any conditions to an approval which it deems necessary



to protect waters of the state in accordance with the Missouri Clean Water Law and regulations.

(E) Any developer or person owning any residential housing development or lots covered by this rule who has a proposal for wastewater disposal denied, or any condition in an approval in all or in part, may appeal to the Missouri Clean Water Commission within thirty (30) days of issuance of the denial or conditioned approval.

(F) Nothing in this rule shall preclude any local, municipal, county, or other lawful authority from establishing subdivision, sewer, or single-family residence on-site systems regulations and ordinances equal to or more stringent than those contained in this rule.

(G) Compliance with other law. Nothing in this rule shall excuse any person from complying with or from liability for violations of the Missouri Clean Water Law and regulations or any other laws of Missouri.

(H) Severability. If any section, paragraph, sentence, clause, or phrase of this rule, or any part of each, be declared unconstitutional or invalid for any reason, the remainder of this rule shall not be affected and shall remain in full force and effect.



**Residential Housing Development
Geohydrologic Groundwater Evaluation Rating
Missouri Department of Natural Resources
Division of Geology and Land Survey, Geological Survey Program
Box 250, Rolla, Missouri 65402
Phone: (573) 368-2161 FAX: (573) 368-2111**

Project: _____ County: _____
 Location _____, Sec. _____, T. _____, R. _____, Quad: _____

 Latitude: _____ Deg., _____ Min., _____ Sec., Longitude: _____ Deg., _____ Min., _____ Sec.

1. Upper Bedrock	Rating Number
Surficial materials >20 feet thick (bedrock is not karst)	0.0
Bedrock generally displays low permeability	0.0
Bedrock has moderate to high near-surface permeability and relatively low permeability at depth	0.1
Bedrock has persistent open fractures and/or moderate to high permeability	0.4
Bedrock displaying well developed karst features	1.2
2. Surficial Materials Type	
Clay: Glacial drift or residuum with low permeability	0.0
Silt/Sand: Loess, silty and sandy alluvium, moderate permeability residuum	0.1
Gravel: Gravelly alluvium and residuum, fragipan over permeable residuum	0.4
Macropore permeability, relict bedrock structure residuum	1.2
3. Surficial Materials Thickness (above saturated zone)	
>20 feet	0.0
>10 but ≤20 feet	0.1
≥5 but ≤10 feet	0.4
<5 feet	1.2
4. Watershed Hydrology	
Limited Recharge	0.0
Local Recharge	0.4
Regional Recharge	1.2
5. Approximate Groundwater Velocity	
Low to Moderate	0.0
High	1.2
6. Water Supply	
Public Water Supply or Community Well	0.0
Noncommunity Wells	0.1
Multi-family Wells or Domestic Wells with Full-Length Grout	0.4
Individual Wells	1.2

TOTAL _____

Total of rating numbers for all categories above equals minimum lot size in acres.

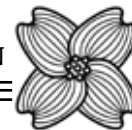


Missouri Department of Natural Resources
Division of Geology and Land Survey, Geological Survey Program
**REQUEST FOR GEOHYDROLOGIC EVALUATION OF
RESIDENTIAL HOUSING DEVELOPMENT (SUBDIVISION)**

FOR OFFICE USE ONLY
PROJECT ID # _____
Date received _____

SUBDIVISION OR DEVELOPMENT LOCATION						
SUBDIVISION OR DEVELOPMENT NAME						
¼ ¼ SECTION	¼ ¼ SECTION	¼ SECTION	SECTION	TOWNSHIP	RANGE	QUADRANGLE NAME
				N.	E/W	
WRITTEN LOCATION IF LEGAL DESCRIPTION IS UNAVAILABLE					COUNTY	
DEVELOPER INFORMATION						
DEVELOPER NAME			TELEPHONE		DATE	
DEVELOPER ADDRESS			CITY	STATE	ZIP CODE	
REQUESTOR INFORMATION						
NAME AND COMPANY OF REQUESTOR (if different than developer)				TELEPHONE		
ADDRESS			CITY	STATE	ZIP CODE	
DEVELOPMENT INFORMATION						
TYPE OF WATER SUPPLY PROPOSED TO BE USED IN SUBDIVISION				TOTAL ACREAGE OF DEVELOPMENT _____ ACRES		
<input type="checkbox"/> COMMUNITY PUBLIC WATER SUPPLY <input type="checkbox"/> NON-COMMUNITY PUBLIC WATER SUPPLY <input type="checkbox"/> INDIVIDUAL DOMESTIC WELLS <input type="checkbox"/> MULTI-FAMILY OR INDIVIDUAL WELLS WITH FULL-LENGTH GROUT						
SKETCH MUST BE SUBMITTED WITH REQUEST!						
A sketch map or photocopy of topographic map must contain the following: development boundaries, all known wells, springs, sinkholes, caves, mines, and roads. Include a scale and north arrow on the sketch map.						
Geohydrologic evaluation reports will be mailed to the developer, requesting party, DNR-DEQ regional office and Water Pollution Control Program central office.						
COMMENTS						
REQUESTOR'S SIGNATURE				TITLE	DATE	
PROPERTY OWNER'S SIGNATURE (INDICATES PERMISSION TO ACCESS PROPERTY)					DATE	

MAIL COMPLETED COPY TO: DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL GEOLOGY SECTION
P.O. BOX 260, ROLLA, MO 65402-0260
Phone: (573) 368-2161 Fax: (573) 368-2111 E-MAIL ADDRESS: gspg@mail.dnr.state.mo.us



AUTHORITY: section 644.026, RSMo 2016. Original rule filed June 14, 1974, effective June 24, 1974. Amended: Filed June 16, 1975, effective June 26, 1975. Rescinded and readopted: Filed Oct. 12, 1983, effective May 15, 1984. Rescinded and readopted: Filed July 13, 1998, effective March 30, 1999. Amended: Filed June 14, 2024, effective Jan. 30, 2025.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

10 CSR 20-6.040 Expiration of Operating Permits in Force Under Senate Bill 424

(Rescinded July 10, 1980)

AUTHORITY: section 204.026, RSMo 1978. Original rule filed Oct. 31, 1973, effective Nov. 9, 1973. Amended: Filed June 19, 1974, effective June 29, 1974. Rescinded: Filed Oct. 12, 1979, effective July 10, 1980.

10 CSR 20-6.050 Self-Monitoring

(Rescinded May 12, 1983)

AUTHORITY: section 204.026, RSMo 1978. Original rule filed Dec. 4, 1975, effective Dec. 14, 1975. Rescinded: Filed Oct. 16, 1979, effective July 11, 1980. Readopted: Filed Feb. 4, 1980, effective July 11, 1980. Rescinded: Filed Nov. 10, 1982, effective May 12, 1983.

10 CSR 20-6.060 Water Quality Certification

PURPOSE: Section 401 of Public Law 92-500 requires that any applicant for a federal license or permit to conduct any activity which may result in any discharge into the navigable waters shall provide the federal licensing or permitting agency a water quality certification from the state. This certification will contain such conditions that ensure the proposed activity will comply with the state water quality standards and other applicable standards as required by federal law. This rule establishes the procedure and time limitations the Department of Natural Resources will follow in issuing certifications.

(1) Definitions. Definitions as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 shall apply to those terms when used in this rule, unless the context clearly requires otherwise.

(A) "Individual federal permit," a United States Army Corps of Engineers (USACE) authorization that is issued following a case-by-case evaluation of a specific project involving the proposed discharges in accordance with the procedures of 33 CFR part 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR part 320. Individual federal permits will always require an individual water quality certification.

(B) "Nationwide permit," a USACE authorization that is designed to regulate with little delay or paperwork issued on a nationwide basis for a category or categories of activities when –

1. Those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or

2. The nationwide permit would result in avoiding unnecessary duplication of regulatory control exercised by another federal, state, or local agency provided it has been determined that the environmental consequences of the action

are individually and cumulatively minimal in accordance with 33 CFR part 325.2(e) and 33 CFR part 330.

(C) "Programmatically certified" or "pre-certified," a federal nationwide permit may be considered programmatically certified by USACE if it meets the conditions established by the department. Pre-certified nationwide permits do not need an additional department review process. This is the most stringent combination of federal permit and state water quality certification.

(D) "Individual water quality certification," individual federal permits or nationwide permits that do not meet the programmatic certification conditions. These projects require an additional review from the department to ensure that Missouri water quality standards will not be violated.

(E) "Regional general permit," a regional general permit is issued for a specific geographic area by an individual Corps District. Each regional general permit has specific terms and conditions, all of which must be met for project-specific actions to be verified.

(2) Requests for water quality certifications should be sent by the applicant directly to the Department of Natural Resources, Water Pollution Control Program, PO Box 176, Jefferson City, MO 65102 or by email. The request to the department should include a project narrative requesting the state's water quality certification for the proposed project, a copy of the federal license or permit application submitted to USACE, and any readily available water quality related materials that informed the development of the federal license or permit application. If the applicant believes a project will be authorized by a general or nationwide 404 permit for which USACE has accepted the department's programmatic certification, the applicant need not send an application to the department.

(3) Public Notice Procedures.

(A) For individually permitted projects, USACE will issue a department/federal public notice on the permit application. This will fulfill the department's public notice requirements and will be known as a joint public notice.

(B) Projects under a nationwide permit or regional general permit that are not programmatically certified will go through the department's public notice process. A comment period of at least fifteen (15) days will be provided. The public notice will express the department's intent to certify the proposed project after completion of the public notice period and resolution of any adverse water quality comments received.

(C) Nationwide or regional general permits that are programmatically certified are not required to go through a public notice process.

(4) After the completion of the public notice period, comments received shall be reviewed and considered by the department. Consideration shall be given to both direct and indirect water quality effects before issuing or denying water quality certification.

(A) The department will follow public notice procedures pursuant to 10 CSR 20-6.020(4)(A).

(B) If objections to the proposed project are raised during the public notice period, the department will attempt to resolve the objections.

1. If the comments are resolved during negotiations or during public hearings, the department will proceed to issue its certification.

2. If the comments are not resolved, the department shall review the comments and proceed as follows:



A. If the comments are determined to be valid comments, the department shall either deny certification or issue a certification that is conditioned upon the applicant meeting certain requirements or performing certain actions to prevent or minimize water quality problems; or

B. If the comments are determined to be invalid or not having substantial effects upon water quality, the department shall issue its certification.

(5) Applications for water quality certifications have a sixty- (60-) day period in which they must be issued, waived, or denied. This period starts when a complete request is received by the department.

(A) The federal agency and the department may agree in writing to extend the time to respond to a request for individual certification up to one hundred eighty (180) days if an extension is approved by the Missouri Clean Water Commission in accordance with subsection 644.051.20, RSMo, of the Missouri Clean Water Law. The commission hereby determines that extensions may be necessary to evaluate significant impacts on water quality standards if the department finds there is substantial public interest in the proposed project.

(B) Submission of an incomplete request may result in the denial of water quality certification without prejudice.

(C) If a water quality certification action has not been taken within sixty (60) days of the date that the complete request has been received by the department, and the department and federal agency have not agreed to extend the certification period, water quality certification will be deemed to have been waived for the activity contained in the complete request.

(6) Water quality certifications that are issued for nationwide and regional general permits and are programmatically certified become effective upon issuance. Water quality certifications that are issued for individual certifications and for certifications for nationwide and regional general permits that are not programmatically certified shall become effective upon signature and receipt of applicable fees. Water quality certifications are effective for the life of the federal permit.

(7) The issuance, conditional issuance or denial of certification under subparagraph (4)(B)2.A. or B. of this rule may be appealed to the Missouri Clean Water Commission through procedures outlined in the *Revised Statutes of Missouri*, Chapter 644. The appeal shall be a contested case and notice of the appeal shall be filed with the commission within thirty (30) days of service of notice to the applicant of denial or grant of the requested certification as specified in 10 CSR 20-6.020(5).

(8) Effective Date. This rule becomes effective immediately upon adoption and compliance with the requirements of subsection 644.036.3 of the Missouri Clean Water Law.

AUTHORITY: section 644.026, RSMo 2016. Original rule filed Feb. 10, 1978, effective July 13, 1978. Amended: Filed May 11, 1984, effective Oct. 15, 1984. Amended: Filed Nov. 9, 2000, effective July 30, 2001. Amended: Filed July 15, 2025, effective Feb. 28, 2026.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

10 CSR 20-6.070 Groundwater Heat Pump Operating Permits

PURPOSE: This rule sets forth the requirements and process of

application for operating permits and the terms and conditions for the permits.

(1) Permits – General Information.

(A) All persons who build, erect, alter, replace, operate, use, or maintain existing or proposed groundwater heat pump injection/withdrawal wells that inject more than six hundred thousand (600,000) British thermal units (BTUs) per hour (also termed as fifty (50) tons of capacity) shall apply to the department for the permits required by Missouri Clean Water Law and these regulations.

(B) The following are exempt from permit regulations:

1. Groundwater heat pump injection wells designed for up to eight (8) single family residents where the combined injection rate is less than six hundred thousand (600,000) BTUs per hour;

2. All other groundwater heat pump injection wells that have a combined injection rate of less than six hundred thousand (600,000) BTUs per hour unless there is a potable water well, not owned by the owner of the heat pump, within one thousand feet (1000') which uses the same aquifer, strata or depth as a source;

3. Any sampling well constructed in conjunction with any injection/withdrawal well; and

4. Heat pumps constructed in such a way so as to not utilize groundwater, such as lateral line systems.

(C) Nothing in these regulations shall prevent the department from taking action where the department finds that any activity exempted under subsection (1)(B) causes pollution of waters of the state, places, or permits to be placed, a water contaminant in a place where it is reasonably certain to cause pollution of any waters of the state or the activity otherwise violates the Missouri Clean Water Law or these regulations.

(D) Drillers of injection/withdrawal wells shall comply with 10 CSR 23-5.060 Construction Standards for Open Loop Heat Pump Systems That Use Groundwater and 10 CSR 23-3 Well Construction Code.

(E) Within ninety (90) days of notification by the department, owners or operators of injection wells exempted from the permit requirements of subsection (1)(B) are required to submit completed injection well inventory information on forms supplied by the department.

(2) Application.

(A) An application for an original operating permit or renewal of a former operating permit shall be made by letter for each injection/withdrawal well and shall include each of the following. The application may be supplemented with copies of information submitted for other federal or state permits.

1. Appropriate application fee as listed in 10 CSR 20-6.011;

2. Name and address of the company(s), organization(s), owner(s) or operator of the injection/withdrawal well;

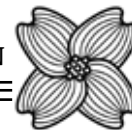
3. Description of structure or process, or both, that will utilize the injection/withdrawal well;

4. Estimated depth of well, aquifer to be used (or anticipated aquifer), casing and related well construction data as recommended by the office of the state geologist;

5. Exact location of the proposed injection withdrawal well and any other wells that exist within two thousand feet (2000') shown on a seven and one-half (7 1/2) minute United States Geological Survey (USGS) topographic quadrangle map;

6. The depth of each well indicated on the map;

7. Maximum, minimum and average volume of water that will be injected or withdrawn on a daily basis;



8. Maximum, minimum and average temperature differential of injected/withdrawn water;

9. Computations showing how the temperature differentials were calculated;

10. General specifications of the installation including the heat exchange unit, pump and other structures;

11. If the injection/withdrawal well is located within one thousand feet (1000') of any potable water well, a registered professional geologist's or registered professional geologic engineer's recommendation and justification on the number and location of sampling wells if any are deemed necessary, and an estimate of the effect, in degrees Fahrenheit (F°), on all wells located within one thousand feet (1000'); and

12. A copy of the certified heat pump well drillers' report to the Department of Natural Resources' Missouri Geological Survey.

(B) All applications must be signed as follows:

1. For a corporation – by an officer of at least the level of plant manager;

2. For a partnership or sole proprietorship – by a general partner or the proprietor; or

3. For a municipal, state, federal or other public facility – by either a principal executive officer or ranking public official or his/her designee.

(C) All other reports required by the department shall be signed by a person designated in subsection (2)(B) of this rule or a duly authorized representative, where –

1. The representative so authorized is responsible for the overall operation of the facility from which the injection/withdrawal occurs; and

2. The authorization is made in writing by a person designated in subsection (2)(B) of this rule and is submitted to the director.

(D) Any changes in the written authorization which occur after the issuance of a permit shall be reported to the department by submitting a new written authorization which meets the requirements of subsection (2)(C) of this rule.

(E) If an application is incomplete or otherwise deficient, the applicant shall be notified of the deficiency and processing of the application may be discontinued until the applicant has corrected all deficiencies.

(F) Mail applications to Water Pollution Control Program, PO Box 176, Jefferson City, MO 65102.

(3) Operating Permits.

(A) In order to obtain an operating permit for groundwater heat pump injection/withdrawal wells, applications for an operating permit shall be submitted to the department in accordance with the timeframes listed in section 644.051, RSMo and 10 CSR 20-6.010.

(B) Prior to issuance of an operating permit, the department shall fulfill the public notice requirements as outlined in 10 CSR 20-6.020.

(4) Terms and Conditions of Permit.

(A) The following shall be incorporated as terms and conditions of all permits:

1. All injection/withdrawals shall be consistent with the terms and conditions of the permit;

2. The permit may be modified or revoked after reasonable notice for causes including, but not limited to:

A. A violation of any term or condition of the permit;

B. A misrepresentation or failure to disclose fully all relevant facts in obtaining a permit;

C. A change in the operation, size or capacity of the

permitted facility; or

D. An increase of more than ten degrees Fahrenheit (10°F) in any nearby potable water well that was in existence when the original operating permit was issued.

3. The injection/withdrawal permit may be issued for a period up to five (5) years, in accordance with section 644.051, RSMo and 10 CSR 20-6.010;

4. Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law, corresponding regulations and applicable permit conditions;

5. For the purpose of inspecting for compliance with the Clean Water Law and these regulations, authorized representatives of the department shall be allowed by the permittee, upon presentation of credentials and at reasonable times, to –

A. Enter upon permittee's premises in which a ground-water heat pump injection/withdrawal well is located or in which any records are kept under terms and conditions of the permit;

B. Have access to, or copy, any records kept under terms and conditions of the permit;

C. Inspect any sampling wells, monitoring equipment or method listed in the permit; and

D. Sample for permit compliance;

6. Facility expansions, production increases or process modifications which will result in a new or substantially different injection/withdrawal must be reported sixty (60) days before the facility or process modification begins. Notification may be accomplished by application for a new permit, or by submission of notice to the department;

7. Copies of well location, driller's logs, sample logs, casing schedule, volume of water, temperature, water quality and other information developed or determined for the completed installation shall be sent to the Missouri Department of Natural Resources (DNR), Water Pollution Control Program and Missouri Geological Survey;

8. Measure and record maximum, minimum and average water temperature monthly for each injection/withdrawal well and each monitoring well;

9. Measure and record maximum, minimum and average injection/withdrawal rates monthly;

10. Measure and record total dissolved solids monthly for each injection/withdrawal well and each monitoring well; and

11. A yearly report to the Department of Natural Resources' Water Protection Program and Missouri Geological Survey, which contains the following information:

A. Volume of water withdrawn and injected;

B. Temperature records for each monitoring well; and

C. Copies of water quality analyses performed.

(5) Prohibitions.

(A) No permit shall be issued:

1. Where the terms and conditions of the permit do not comply with applicable guidelines or requirements of the Missouri Clean Water Law and corresponding regulations or the Federal Clean Water Act and federal regulations;

2. Where the permit conditions do not ensure compliance with the applicable water quality requirements of any other affected states;

3. For the discharge of any pollutant, except thermal discharges; those pollutants contained in the withdrawal water may be reinjected;

4. For the discharge of any radiological, chemical or biological warfare agent or radioactive waste; and

5. For the construction or operation of a new injection/withdrawal well which could degrade the usefulness of water



withdrawn from earlier permitted wells.

(6) Permits Transferable.

(A) Subject to section (3), an operating permit may be transferred upon submission to the department of an application to transfer signed by a new owner. Until, such time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.

(B) The department, within thirty (30) days of receipt of the application, shall notify the new applicant of its intent to revoke and reissue or transfer the permit.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI OIL AND GAS COUNCIL
MONTHLY WELL STATUS AND PRODUCTION REPORT

FORM OGC-9

FIELD _____					COUNTY _____				
LOCATION OF FIELD		SECTION(S) _____			TWP _____		RNG _____		
OPERATOR _____					MONTH _____		YEAR _____		
LEASE	TYPE AND NUMBER OF WELLS				PRODUCTION			GRAVITY A.P.I.	AVG. PRICE AT WELLHEAD PER/BBL. - MCF
	TYPE*	(1) ACTIVE	(2) INACTIVE	(3) TOTAL	OIL BBLs.	WATER BBLs.	GAS MCFs		
CERTIFICATE ▶ I, the undersigned, state that I am the _____ of the _____ (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.									
SIGNATURE _____									
*TYPE	F - Flowing, P - Pumping, SI - Shut In, TA - Temporarily Abandoned, WI - Water Injection, AI - Air-Gas Injection								
NOTE ▶	Total number of wells (col. 3) will equal Active wells (col. 1) plus Inactive wells (col. 2).								

MO 780-0219 (10-87)

REMIT TWO COPIES TO: MISSOURI OIL AND GAS COUNCIL, P.O. BOX 250, ROLLA, MO 65401



MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI OIL AND GAS COUNCIL

FORM OGC-10

MONTHLY REPORT OF DISPOSAL OF PRODUCED WATER

DATE		OPERATOR			LEASE	
LOCATION	SECTION(S)	T	R	COUNTY		
LEASE	WELL NO.	WATER BBLs.	WATER TYPE*	DISPOSAL METHOD**	REMARKS	

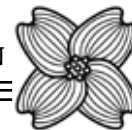
CERTIFICATE: I, THE UNDERSIGNED, STATE THAT I AM THE _____ OF THE _____ (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

*WATER TYPE: F - FRESH; M - MINERALS; S - SALT

**DISPOSAL METHOD: E - EVAPORATION PIT; I - INJECTION (SAME OR ANOTHER STRATA; SPECIFY); S - SURFACE RUNOFF; R - RIVER, CREEK; O - OTHER (EXPLAIN)

MO 780-0220 (3-88)

REMIT TWO COPIES TO: MISSOURI OIL AND GAS COUNCIL, P.O. BOX 250, ROLLA, MO 65401



AUTHORITY: section 644.026, RSMo 2016. Original rule filed Nov. 10, 1980, effective April 11, 1981. Amended: Filed March 9, 1984, effective Oct. 1, 1984. Amended: Filed March 1, 1996, effective Nov. 30, 1996. Amended: Filed June 13, 2018, effective Feb. 28, 2019.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

10 CSR 20-6.080 Signatures for Construction Permits, Operating Permits and Groundwater Heat Pump Injection/Withdrawal Wells

PURPOSE: This rule sets forth the authorization for the director of the Department of Natural Resources, in his/her capacity of administering Department of Natural Resources program, to delegate the review, reevaluation and approval/denial of construction permits, operating permits and permits to withdraw/inject water from/into subsurface wells.

(1) It is the responsibility of the Department of Natural Resources (DNR) to issue or deny Clean Water Commission permits. Authority to issue/deny Clean Water Commission permits rests with the director of DNR acting in his/her capacity of administering DNR programs. This authority may be delegated by letter from the director of the DNR to his/her designee. Denial of a Clean Water Commission permit will be by a certified letter that states –

- (A) The permit is being denied;
- (B) The reason(s) that the permit is being denied;
- (C) Any action that the permittee could take to mitigate the denial and eventually secure the permit; and
- (D) The permittee’s right to appeal the staff denial to the Clean Water Commission within thirty (30) days.

AUTHORITY: section 644.026, RSMo Supp. 1987. Original rule filed Jan. 13, 1981, effective May 11, 1981.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987.*

10 CSR 20-6.090 Class III Mineral Resources Injection/Production Well Operating Permits

PURPOSE: This regulation controls the construction and operations of mineral resources injection/production wells.

(1) Permits – General.

(A) This rule applies to Class III injection/production wells used for the extraction of minerals including:

- 1. Sulfur mining by the Frasch process;
- 2. *In-situ* production of uranium or other metals. This category includes only *in-situ* production from ore bodies which have not been conventionally mined;
- 3. *In-situ* combustion of fossil fuel; fossil fuels include coal, tar sands, oil shale, and any other fossil fuel which can be mined by this process; and
- 4. Solution mining of salts or potash.

(B) This rule does not apply to wells used by generators of hazardous wastes or of radioactive wastes, by owners or operators of hazardous waste management facilities or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste into or above any underground formation. These types of wells are expressly forbidden under section 577.155, RSMo.

(C) All persons who build, erect, alter, replace, operate, use, or maintain existing or proposed Class III injection/production wells shall apply to the department for applicable permits using application forms provided by the department.

(D) Nothing in these regulations shall prevent the department from taking action where the department finds that any activity that places, or permits to be placed, a water contaminant where it is reasonably certain to cause pollution of any waters of the state, or the activity otherwise violates Chapter 644, RSMo, the Missouri Clean Water Law, or these regulations.

(E) Any information submitted to the department pursuant to these regulations may be claimed as confidential by the applicant. Any claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words confidential business information on each page containing the information. If no claim is made at the time of submission, the department may make the information available to the public without further notice. Claims of confidentiality for the following information will be denied:

- 1. The name and address of any permit applicant or permittee; and
- 2. Information which deals with the existence, absence or level of contaminants in drinking water.

(F) The permittee shall give advance notice to the director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(G) Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under these regulations for a period extending from the date the application is signed to the date the permit expires for at least three (3) years.

(2) Application.

(A) An application for an operating permit shall be made for each injection/production well and shall include each of the following items. The application may be supplemented with copies of information submitted for other federal or state permits.

- 1. All items listed in 10 CFR 144.31(e);
- 2. Description of the process that will be used for the mineral extractions, including injection/withdrawal procedures;
- 3. Estimated depth of the well, casing lengths and weights, intervals to be cemented, and related well construction data as recommended by the office of the state geologist;
- 4. Maximum and average volume of injected fluids and injection pressure that will be used on a daily basis;
- 5. Appropriate application fee as listed in 10 CSR 20-6.011;
- 6. Recommendation and justification on the number and location of sampling wells by a registered professional engineer or a qualified geologist as defined by sections 256.501 and 256.503, RSMo;
- 7. Where injection is into a formation which contains water with less than ten thousand milligrams per liter (10,000 mg/l) total dissolved solids (TDS), monitoring wells shall be:
 - A. Completed into the injection zone and into any underground sources of drinking water (USDW) above the injection zone which could be affected by the mining operation;
 - B. Located in a fashion as to detect any excursions of injection fluids, process by-products, or formation fluids outside the mining area or zone; and
 - C. Located as not to be physically affected by a subsidence or catastrophic collapse;



8. Where injection is into a formation which does not contain water with less than ten thousand (10,000) mg/l TDS, no monitoring wells are necessary in the injection zone;

9. Where the injection wells penetrate an underground source of drinking water (USDW) in an area subject to subsidence or catastrophic collapse, an adequate number of monitoring wells shall be:

A. Completed into the USDW to detect any movement of injected fluids, process by-products, or formation fluids into a USDW; and

B. Located as not to be physically affected by a subsidence or catastrophic collapse;

10. In determining the number, location, construction and frequency of sampling of the monitoring wells, the following criteria shall be considered:

A. Population relying on the USDW affected or potentially affected by the injection operation;

B. Proximity of the injection operation to points of withdrawal of drinking water;

C. Local geology and hydrology;

D. Operating pressures and whether a negative pressure is being maintained;

E. Nature and volume of the injected fluid, the formation water, and the process by-products; and

F. Injection well density;

11. Map(s) describing an area of review for each Class III injection/production well or group of wells, as determined by a registered professional engineer or a qualified geologist as defined by sections 256.501 and 256.503, RSMo. The area of review shall be that area the radius of which is determined by the lateral distance from a Class III injection/production well or perimeter of a group of wells in which the pressure in the injection zone may cause the migration of injection or formation, or both, fluid into an USDW or into an improperly constructed, plugged, or abandoned well or test hole.

A. The radius of the area of review may be calculated using a mathematical model (for example, modified Thesis equation) and shall be calculated for an injection time period at least equal to the expected life of the well(s). The owner or operator must demonstrate to the director that the mathematical model used and the calculated area of review are appropriate for the known hydrologic properties of the underlying formations.

B. A fixed radius around the well or the perimeter of a group of wells of not less than one-half (1/2) mile may be used. In determining the fixed radius, the following factors shall be taken into consideration: chemistry of injected and formation fluids, hydrogeology, population and groundwater use and dependence, and historical practices in the area.

C. If the area of review is determined by a mathematical model pursuant to subparagraph (2)(B)8.A. the permissible radius is the result of the calculation even if it is less than one-half (1/2) mile.

D. Nothing in this section shall prevent the director from imposing alternate areas of review when geologic or hydrologic conditions render a calculated or fixed area a potential threat to an underground source of drinking water;

12. Submit with the application a mapped and tabulated inventory of all known water supply, injection/production, abandoned and test wells, including field names or numbers and locations of the wells, public water systems, within the area of review and a separate tabulation of all the wells, which penetrate the injection zone listing each well's type, construction method, date drilled, location, depth, and record of plugging or completion, or both, including a description of all

corrective action(s) proposed to be performed to render wells penetrating the injection zone sealed, plugged, or otherwise impervious to the migration of fluids into or between well bores, USDWs, or different aquifers. The applicant is responsible for the inventory and corrective action requirements of this section and shall extend every reasonable effort to locate all wells within the area of review of the applicant well(s);

13. A plan for plugging and abandonment. Where the plan meets the requirements of this paragraph, the director shall incorporate it into the permit as a condition. Where the director's review of an application indicates that the permittee's plan is inadequate, the director shall require the applicant to revise the plan, prescribe conditions meeting the requirements of this paragraph or deny the application. For purposes of this paragraph, temporary intermittent cessation of injection operations is not abandonment;

14. Prior to granting approval for the plugging and abandonment of a Class III well, the director shall consider the following information:

A. The type and number of plugs to be used;

B. The placement of each plug, including the elevation of the top and bottom;

C. The type, grade, and quantity of cement to be used; and

D. The method of placement of the plugs;

15. The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the director. The permittee must show evidence of financial responsibility to the director by the submission surety bond or other adequate assurance such as financial statements or other materials acceptable to the director;

16. Maps and cross-sections indicating the vertical limits of all USDWs within the area of review, their position relative to the injection formation, and the direction of water movement, where known, in every underground source of drinking water which may be affected by the proposed injection;

17. Maps and cross-sections detailing the geologic structure of the local area;

18. Generalized map and cross-sections illustrating the regional geologic setting;

19. Qualitative analysis and ranges in concentrations of all constituents of injected fluids. The applicant may request confidentiality as specified in subsection (1)(E). If the information is proprietary, an applicant, in lieu of the ranges in concentrations, may choose to submit maximum concentrations which shall not be exceeded. In this case the applicant shall retain records of the undisclosed concentrations and provide them upon request to the director as part of any enforcement investigation;

20. Proposed formation testing program to obtain the information required by paragraph (2)(H)4.;

21. Proposed stimulation program;

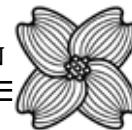
22. Schematic or other appropriate drawings of the surface and subsurface construction details of the well;

23. Plans, including maps, for meeting the monitoring requirements of subsection (4)(D);

24. Expected changes in pressure, native fluid displacement, and direction of movement of injection fluid;

25. Contingency plans to cope with all shut-ins or well failures so as to prevent the migration of contaminating fluids into the USDW;

26. A certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to close, plug, or abandon the well as required by



paragraph (2)(B)19.;

27. The corrective action proposed to be taken under paragraph (2)(B)18.;

28. Where the injection zone is a formation which is naturally water-bearing, the following information concerning the injection zone shall be determined or calculated for new Class III wells or projects:

- A. Fluid pressure;
- B. Fracture pressure; and
- C. Physical and chemical characteristics of the formation fluids;

29. Where the injection formation is not a water-bearing formation, only the information in subparagraph (2)(A)28.B. must be submitted;

30. Where the permittee becomes aware that s/he failed to submit any relevant facts in a permit application, or has submitted incorrect information in a permit application or in any report to the director, the permittee shall promptly submit the facts or information; and

31. Data sufficient to allow the department to carry out aquifer exemption procedures under the Safe Drinking Water Act, UIC program. The information shall be sufficient to demonstrate that the aquifer is expected to be mineral or hydrocarbon producing. Information for the proposed project, such as a map and general description of the mining zone, general information on the mineralogy and geochemistry of the mining zone, analysis for the amenability of the mining zone to the proposed mining method, and a timetable of planned development of the mining zone shall be considered by the director.

(B) All applications must be signed as follows:

1. For a corporation – by an officer of at least the level of plant manager;
2. For a partnership or sole proprietorship – by a general partner or the proprietor; or
3. For a municipal, state, federal, or other public facility – by either a principal executive officer or ranking public official or his/her designee.

(C) All other reports required by the department shall be signed by a person designated in subsection (2)(B) of this rule or a duly authorized representative, where –

1. The representative so authorized is responsible for the overall operation of the facility from which the injection/withdrawal occurs; and
2. The authorization is made in writing by a person designated in subsection (2)(B) of this rule and is submitted to the director.

(D) Any changes in the written authorization which occur after the issuance of a permit shall be reported to the department by submitting a new written authorization which meets the requirements of subsection (2)(C) of this rule.

(E) If an application is incomplete or otherwise deficient, the applicant shall be notified of the deficiency and processing of the application may be discontinued until the applicant has corrected all deficiencies.

(F) Any person signing a document under subsection (2)(B) or (C) shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(G) Mail applications to Water Pollution Control Program, PO Box 176, Jefferson City, MO 65102.

(H) Prior to granting approval for the operation of a Class III well, the director shall consider the following information:

1. All available logging and testing data on the well;
2. A satisfactory demonstration of mechanical integrity;
3. The anticipated maximum pressure and flow rate at which the permittee will operate;
4. The results of the formation testing program;
5. The actual injection procedures; and
6. The status of corrective action on defective wells in the area of review.

(3) Operating Permits.

(A) In order to obtain an operating permit for Class III injection/production wells, application for an operating permit shall be submitted to the department in accordance with the timeframes listed in section 644.051, RSMo and 10 CSR 20-6.010.

(B) The director may issue a permit on an area basis, rather than for each well individually, provided that the permit is for injection wells –

1. Described and identified by location in permit application(s) if they are existing wells, except that the director may accept a single description of wells with substantially the same characteristics;

2. Located within the same well field, facility site, reservoir, project, or similar unit in the same state;

3. Operated by a single owner or operator;

4. Area permits specify –

A. The area within which underground injections are authorized; and

B. The requirements for construction, monitoring, reporting, operation, and abandonment for all wells authorized by the permit.

5. Area permits may authorize the permittee to construct and operate, convert, or plug and abandon wells within the permit area provided –

A. The permittee notifies the director at a time as the permit requires;

B. The additional well satisfies the criteria in subsection (3)(B) and meets the requirements specified in the permit under paragraph (3)(B)4; and

C. The cumulative effects of drilling and operation of additional injection wells are considered by the director during evaluation of the area permit application and are acceptable to the director.

(C) If the director determines that any well constructed pursuant to paragraph (3)(B)5. does not satisfy any of the requirements of subparagraphs (3)(B)5.A. and B., the director may modify or terminate the permit or take enforcement action. If the director determines that cumulative effects are unacceptable, the permit may be modified or terminated.

(4) Terms and Conditions of Permits.

(A) The following shall be incorporated as terms and conditions of all permits:

1. All operations shall be consistent with the terms and conditions of the permit;

2. The permit may be modified or revoked after reasonable notice for causes including, but not limited to:

A. Material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance, which justify the application of permit conditions that are different or absent in the existing permit;

B. New information received by the director, including



information indicating that cumulative effects on the environment are unacceptable;

C. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

D. Good cause, as determined by the director, exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy; and

E. Notification of a proposed transfer of the permit has been received by the director;

3. Suitability of the facility will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance;

4. The permit may be issued for a period of up to five (5) years in accordance with section 644.051, RSMo and 10 CSR 20-6.010. If the permittee wishes to continue an activity regulated by the permit after the expiration date of the permit, the permittee must apply for and obtain a new permit prior to the expiration date of the permit in effect;

5. The director may terminate a permit during its term or deny a permit renewal application for the following causes:

A. Noncompliance by the permittee with any condition of the permit;

B. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time; or

C. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

6. For the purpose of inspecting for compliance with the Clean Water Law and these regulations, authorized representatives of the department shall be allowed by the permittee, upon presentation of credentials and at reasonable times, to –

A. Enter upon permittee's premises in which Class III injection/production well is located or in which any records are kept under terms and conditions of the permit;

B. Have access to or copy, any records to be kept under terms and conditions of the permit;

C. Inspect any sampling wells, monitoring equipment, or method listed in the permit; and

D. Sample for permit compliance;

7. Facility expansions, production increases or process modifications which will result in a new substantially different operation must be reported sixty (60) days before the facility or process modification begins. Notification may be accomplished by application for a new permit or by submission of notice to the department;

8. Copies of well location, driller's logs, sample logs, casing schedule, volume of water, temperature, water quality, cement records, and other information developed or determined for the completed installation shall be sent to the Missouri Department of Natural Resources, Water Pollution Control Program and to the Missouri Department of Natural Resources, Division of Geology and Land Survey;

9. Measure and record maximum and average injection/withdrawal volumes and pressures semi-monthly;

10. Measure and record total dissolved solids semi-monthly for each injection/production well and each monitoring well;

11. Submit a quarterly report to the agencies listed in paragraph (4)(A)8. which contains the following information:

A. Volume and pressure of fluids injected and withdrawn; and

B. Copies of water quality analyses performed; and

12. Information on compliance and noncompliance shall be submitted by the permittee as follows:

A. No later than thirty (30) days following each compliance schedule date, submit in writing compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule pertaining to this permit.

B. Within twenty-four (24) hours of becoming aware of the circumstances, report orally any noncompliance which may endanger health or the environment, including information which indicates that any contaminant may cause an endangerment to a USDW, or noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

C. Within five (5) days of becoming aware of the circumstances, report in writing a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance; and

D. With the next scheduled monitoring report, submit in writing all instances of noncompliance not reported under other sections of this rule, including the information listed in subparagraph (4)(A)12.A. through C.

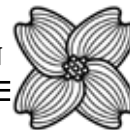
(B) No owner or operator shall construct, operate, maintain, convert, plug, or abandon any Class III injection/production well or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into USDWs. The applicant for a permit shall have the burden of showing that the requirements of this section are met through a demonstration of mechanical integrity by completing each of the following:

1. Demonstrate the absence of significant leaks utilizing at least one (1) of the following procedures: a pressure test with liquid or gas; monitoring of annulus pressure in wells injecting at a positive pressure following an initial pressure test; or any other test(s) that the state geologist considers effective.

2. Demonstrate the absence of significant migration of fluids in channels adjacent to the well bore utilizing at least two (2) of the following procedures: noise logs, temperature surveys, cement records demonstrating the presence of adequate cement to prevent migration (used only if the nature of casing precludes the use of noise logs or temperature surveys); or any other test(s) approved by Environmental Protection Agency (EPA) and that the state geologist considers effective.

3. Demonstrate mechanical integrity before operations may begin by submitting documentation of successful demonstrations of mechanical integrity, or by allowing department personnel to witness the demonstrations. Scheduling of witnessed demonstrations of mechanical integrity may be at the reasonable convenience of the applicant. Nothing in this rule will prevent the director from rescheduling a test at a reasonable time convenient to the applicant when necessary to allow department personnel to witness the test(s).

(C) For Class III injection/production wells – if any water quality monitoring of any USDW indicates the movement of any contaminant into the USDW, the director shall prescribe the additional requirements for construction, corrective action, operation, monitoring or reporting (including closure of



the injection/production well) as are necessary to prevent this movement. These additional requirements shall be imposed by modifying the permit in accordance with this regulation or the permit may be terminated.

(D) Monitoring requirements, at a minimum, shall specify –

1. Monitoring of the nature of injected fluids with sufficient frequency to yield representative data on its characteristics. Whenever the injection fluid is modified to the extent that the analysis completed in accordance with paragraph (2)(A)19. is incorrect or incomplete, a new analysis in accordance with paragraph (2)(A)19. shall be provided to the director;

2. Monitoring of injection pressure and either flow rate or volume semi-monthly, or metering and daily recording of injected and produced fluid volumes as appropriate;

3. Monitoring of the fluid level in the injection zone semi-monthly where appropriate and monitoring of the parameters chosen to measure water quality in the monitoring wells in accordance with paragraph (4)(D)1. semimonthly; and

4. Quarterly monitoring of wells in accordance with paragraph (4)(E)1.

(E) Reporting requirements, at a minimum, shall include:

1. Quarterly reporting to the director on required monitoring;

2. Results of mechanical integrity tests and any other periodic test required by the department reported with the first regular quarterly report after the completion of the test; and

3. Monitoring may be reported on a project or field basis rather than individual well basis where manifold monitoring is used.

(5) Prohibitions.

(A) No permit shall be issued:

1. Where the terms and conditions of the permit do not comply with applicable guidelines or requirements of the Clean Water Law and corresponding regulations or relevant federal laws.

2. Where the permit conditions do not ensure compliance with the applicable water quality requirements of any other affected states.

3. For the discharge of any pollutant not necessary to the extraction process, except thermal discharges; those produced pollutants contained in the formation water may be reinjected into a formation of the same TDS concentration.

4. For the discharge of any radiological, chemical, or biological warfare agent or radioactive waste.

5. For the construction or operation of a new injection/production well which would degrade the usefulness of water withdrawn from earlier permitted wells.

6. For a well utilizing annular injection or production.

(B) No well shall be operated so that fluid pressures in the injection zone exceed the fracture pressure calculated or known for that formation.

(C) New injection wells may not commence injection until construction is complete and –

1. The permittee has submitted notice of completion of construction to the director and –

A. The director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or

B. The permittee has not received notice from the director of the intent to inspect or otherwise review the new injection well within thirteen (13) days of the date of the notice in paragraph (5)(C)1. of this rule, in which case prior inspection or review is waived and the permittee may commence injection.

(I) No operation shall commence until corrective actions outlined in paragraph (2)(A)12. and those required by the department have been completed.

(6) Class III Injection/Production Well Construction Requirements.
(A) All new injection/production wells shall meet each of the following conditions:

1. Wells are cased and cemented to prevent the migration of fluids into or between USDWs or potential sources of drinking water;

2. The casing and cement used in construction of each newly drilled well is designed for the life of the well;

3. Consider the following factors when determining and specifying casing and cementing requirements:

A. Depth to the injection/production zone;

B. Injection pressure, external pressure, internal pressure, axial loading;

C. Borehole size;

D. Size and grade of all casing strings including wall thickness, diameter, nominal weight, length, joint specification, and construction material;

E. Corrosiveness of injection/production and formation fluids or combinations;

F. Lithology of injection/production and confining zones;

and

G. Type and grade of cement.

(B) Each well or group of wells utilizing a positive displacement pump shall be equipped with both high and low safety switches which will shut down the pump in case of pressure increase over the authorized pressure or sudden pressure loss.

(C) Appropriate logs and other tests shall be conducted during the drilling and construction of new injection/production wells. A descriptive report shall be prepared by a qualified log analyst and submitted to the director. The logs and test appropriate to each type of well shall be determined on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time-to-time as the construction of the well progresses. At a minimum, the logs and test shall include deviation checks conducted on all holes where pilot holes and reaming are used at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

(7) Permits Transferable.

(A) Subject to section (3), an opening permit may be transferred upon submission to the department of an application to transfer signed by a new owner. Until that time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.

(B) Within thirty (30) days of receipt of the application the department, shall notify the new applicant of the intent to revoke and reissue or transfer the permit.

(8) Plugging and Abandonment.

(A) Prior to abandoning Class III wells the well shall be plugged with cement in a manner which will not allow the movement of fluids between one (1) aquifer or formation and another. The director may allow Class III wells to use other plugging materials if s/he is satisfied that the materials will prevent movement of fluids into or between USDWs.

(B) Placement of the cement plugs shall be accomplished by one (1) of the following:



1. The balance method;
2. The dump method;
3. The two (2)-plug method; or
4. An alternative method approved by the director which will reliably provide a comparable level of protection.

(C) The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the director prior to the placement of the cement plug(s).

(D) The director shall prescribe aquifer cleanup and monitoring where s/he deems it necessary and feasible to insure adequate protection of USDWs.

(E) The permittee shall notify the director at the times as the permit requires before conversion or abandonment of the well or in the case of area permits before closure of the project.



Instructions for Forms UIC- I & II—Application for Class V Permit

Please read these instructions carefully before completing the application. Return a signed application to the Division of Geology and Land Survey at the Rolla, Missouri address on the front page of form UIC-I. Also return a signed application along with appropriate filing fees to the Water Pollution Control Program at the Jefferson City, Missouri address, also listed on the front page of form UIC-I.

Form UIC-I

1.10—Construction Permit Application

Check only if application is for a permit to construct an injection/recovery well system.

1.20—Operating Permit Application

Check only if application is for a permit to operate an injection/recovery well system.

Contact the Department of Natural Resources at one of the front page locations if you are uncertain which type of permit applies. Division of Geology and Land Survey injection well application (forms OGC-I) and Water Pollution Control form UIC-II must be submitted for **each** well (see “additional forms” below).

2.10—Name of Facility—The site specific name of the facility where the injection/recovery operation is to be conducted.

2.20—Facility Address—Site specific as in 2.10.

2.30—Present Operating Permit Number—Include only the facility’s NPDES or UIC permit number(s) if one or more are in effect. If multiple Class V permits are presently in effect, attach a separate list.

2.40—Construction permit number—Provide the UIC **construction** permit number that the injection/recovery system was constructed under, if **this** application is for an operating permit for the same facility.

2.50—Owner—The name of the individual, institution, agency or corporation which owns the facility.

2.60—Operating Authority—The name of the person or organization responsible for the injection/recovery operation, including if appropriate: the owner, the facility, a consultant, a contractor, or a government agency.

2.70—Facility contact—The individual within the facility or operating authority, most able to supply information about the direct operation of the injection/recovery operation.

2.80—Additional Forms

1. DGLS Form 3-I

For well depth, casing and other completion information.

2. DGLS Form 4-I

For survey and well location information.

3. DGLS Form 11

For injection system information.

2.90—Certification—Self-explanatory.

**UIC Form II—Purpose, Process and Materials****1.00—Facility Name**

The site specific name of the facility where the injection/recovery operation is to be conducted.

2.00—Purpose of Injection/Recovery

Attach separate pages if needed. Include all or portions of an engineering report containing information needed by the owner, operating authority, and the Department of Natural Resources to fully describe the purpose of the injection/recovery operation.

2.10—Description of Injection/Recovery Process

Attach separate pages if needed. Include all or portions of the engineering report required by 2.00 above, or submit a separate detailed description of all elements of the production, treatment and injection system required to allow the owner, operating authority or the Department of Natural Resources to adequately review the system.

The engineering report should contain, at a minimum: a description of the injection and recovery well pattern; a description of the injection zone including details of lithology, hydrology, and unique features of the injection zone and relevant formations; injection and recovery time frames; systems for transporting, storing, mixing, metering, and introducing injection materials; recovery fluid gathering systems, treatment or recycling, and disposal systems; injection pressures and volumes; production rates; emergency plans for power or hydraulic loss; detailed description of all material to be injected and the purposes they serve in the operation; and any other information required by the owner, operating authority, or the Department of Natural Resources.

2.20—Biological Agents

List and describe all biological agents to be injected, including: scientific names; whether or not the agents are native to the formations involved; list of available literature relevant to the use of the agents for the injection operation; their population and nutrient dynamics under proposed operating conditions; discussion and supporting literature regarding potential health and/or environmental impacts of the agents and their metabolites in and downgradient of the injection zone, and after completion of the operation; results of laboratory tests conducted by or for the facility relevant to the injection/recovery operation.

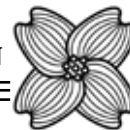
3.00—Hazardous Waste—Will the process involve Hazardous Wastes as defined by federal and state hazardous waste laws?**3.10—Surface Discharge**

If needed, contact the Water Pollution Control Program at the front page address for an NPDES permit application at least 180 days prior to any planned discharge.

4.00—Data Sheets for Injected Material

Provide information for each unique injection material. If materials are to be mixed prior to batch injection, provide analyses of the batch conditions. Otherwise provide analyses for each material if materials are to be injected sequentially, or manifold mixed during injection.

Certification (page 2 of UIC—II)—Self-explanatory



Form UIC-I—Application For Class V Permit—All Applicants

Do Not Attempt To Complete This Form Before Reading The Accompanying Instructions

MISSOURI DEPARTMENT OF NATURAL RESOURCES

Division of Geology and Land Survey
P.O. Box 250
Rolla, MO 65401

Division of Environmental Quality
P.O. Box 1368
Jefferson City, MO 65102

1.10—Construction permit application . A \$25.00 filing fee must accompany each application for a construction permit.

1.20—Operating permit application . A \$75.00 filing fee must accompany each application for an operating permit.

Filing fees must be in the form of check, bank draft, or money order, payable to the State of Missouri. Cash will not be accepted.

2.10—Name of Facility: _____

2.20—Facility Address: _____
Street City State Zip Code

2.30—This facility is now in operation under Missouri Operating Permit Number _____

2.40—This is a new facility and was constructed under Missouri Construction Permit Number _____
(Complete only if this facility does not have an operating permit.)

2.50—Owner Name _____ Phone _____
Address _____
Street City State Zip Code

2.60—Operating Authority Name _____
Address _____
Street City State Zip Code

2.70—Facility Contact Name _____ Phone _____
Title _____

- 2.80—Additional forms necessary to complete this application.
a. For each injection or withdrawal well, the following forms must be completed.
1. Injection Well Permit Application (DGLS Form 3-I).
2. Well Location Plat (DGLS Form 4-I).
3. Injection Well Schematic (DGLS Form 11).
b. Water Pollution Control Form UIC-II.

2.90—I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law, of the Missouri Clean Water Commission.

Applicant's Signature (see instructions)

Date: _____



Form UIC-II—Application For Class V Permit (All Applicants)

Do Not Attempt To Complete This Form Before Reading The Accompanying Instructions

Division of Geology and Land Survey
P.O. Box 250
Rolla, MO 65401

Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102

1.00—Name of facility _____

2.00—Brief description of purpose of injection.
(Attach Engineering Report)

2.10—Brief description of facilities to accomplish injection.
(Attach Engineering Report)

2.20 If biological agents are to be introduced in this process, a biological profile and literature research must be submitted with this application.

3.00—Will this process involve a hazardous waste as defined in 10 CSR 25-4.010? _____ Yes _____ No

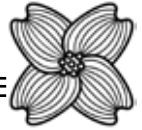
3.10—Will process result in discharge to surface water? _____ Yes _____ No If yes, an NPDES permit must be obtained.

4.00—Complete data sheets (pages 3–7) for **each** material to be injected subsurface.

I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law, of the Missouri Clean Water Commission.

Applicant's Signature (see instructions)

Date: _____



Sec. 4.00 Data sheets for _____ material to be injected.

Part A— You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each material to be injected.

Pollutant	MAXIMUM DAILY VALUE	
	(1) Concentration	(2) Mass
	Biochemical Oxygen Demand (BOD)	
Chemical Oxygen Demand (COD)		
Total Organic Carbon (TOC)		
Total Suspended Solids (TSS)		
Ammonia (asn)		
Flow	VALUE	
Temperature (winter)	VALUE	
Temperature (summer)	VALUE	
pH	MINIMUM	MAXIMUM



Part B— Mark “X” in column “a” for each pollutant you know or have reason to believe is present. Mark “X” in column “b” for each pollutant you believe to be absent. If you mark column “a” for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each well. See the instructions for additional details and requirements.

1.

2.

Pollutant and Cas No. (if available)	Mark ‘X’		Maximum Daily Value	
	a.	b.		
	believed present	believed absent	(1) Concentration	(2) Mass
Bromide (24959-67-9)				
Chlorine Total Residual				
Color				
Fecal Coliform				
Fluoride (16984-48-8)				
Nitrate—Nitrite (as N)				
Nitrogen Total Organic (as N)				
Oil and Grease				
Phosphorus (as P) Total (7723-14-0)				
Radioactivity				
Alpha Total				
Beta Total				
Radium Total				

Pollutant and Cas No. (if available)	Mark ‘X’		Maximum Daily Value	
	a.	b.		
	believed present	believed absent	(1) Concentration	(2) Mass
Sulfate (as SO ⁴) (14808-79-8)				
Sulfide (as S)				
Sulfite (as SO ³) (14265-45-3)				
Surfactants				
Aluminum Total (7429-90-5)				
Barium Total (7440-39-3)				
Boron Total (7440-48-4)				
Cobalt Total (7440-48-4)				
Iron Total (7439-89-6)				
Magnesium Total (7439-95-4)				
Molybdenum Total (7439-98-7)				
Manganese Total (7439-96-5)				
Tin Total (7440-31-5)				
Titanium Total (7440-32-6)				



3.

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
METALS, CYANIDE, AND TOTAL PHENOLS				
1M. Antimony. Total (7440-36-0)				
2M. Arsenic. Total (7440-38-2)				
3M. Beryllium. Total (7440-41-7)				
4M. Cadmium. Total (7440-43-9)				
5M. Chromium. Total (7440-47-3)				
6M. Copper. Total (7550-50-8)				
7M. Lead. Total (7439-97-6)				
8M. Mercury. Total (7439-97-6)				
9M. Nickel. Total (7440-02-0)				
10M. Selenium. Total (7782-49-2)				
11M. Silver. Total (7440-22-4)				
12M. Thallium. Total (7440-28-0)				
13M. Zinc. Total (7440-66-6)				
14M. Cyanide. Total (57-12-5)				
15M. Phenois. Total				

4.

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
GC/MS FRACTION—VOLATILE COMPOUNDS				
1V. Acrolein (107-02-8)				
2V. Acrylonitrile (107-13-1)				
3V. Benzene (71-43-2)				
4V. Bis (Chloromethyl) Ether (542-88-1)				
5V. Bromoform (75-25-2)				
6V. Carbon Tetrachloride (56-23-5)				
7V. Chlorobenzene (108-90-7)				
8V. Chlorodi bromomethane (124-48-1)				
9V. Chloroethane (75-00-3)				
10V. 2-Chloroethylvinyl Ether (110-75-8)				
11V. Chloroform (67-66-3)				
12V. Dichloro bromomethane (75-27-4)				
13V. Dichlorodifluoromethane (75-71-8)				
14V. 1,1-Dichloroethane (75-34-3)				
15V. 1,2-Dichloroethane (107-06-2)				
16V. 1,1-Dichloroethylene (75-35-4)				
17V. 1,2-Dichloropropane (78-87-5)				
18V. 1,2-Dichloropropylene (542-75-6)				
19V. Ethylbenzene (100-41-4)				
20V. Methyl Bromide (74-83-9)				
21V. Methyl Chloride (74-87-3)				

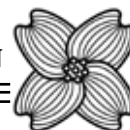


4. (continued)

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
GC/MS Fraction-Volatile Compounds (continued)				
22V. Methylene Chloride (75-09-2)				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)				
24V. Tetrachloroethylene (127-18-4)				
25V. Toluene (108-83-3)				
26V. 1,2-Trans-Dichloroethylene (156-60-5)				
27V. 1,1,1-Trichloroethane (71-55-5)				
28V. 1,1,2-Trichloroethane (79-00-5)				
29V. Trichloroethylene (79-01-6)				
30V. Trichlorofluoromethane (75-89-4)				
31V. Vinyl Chloride (75-01-4)				
5. GC/MS Fraction-Acid Compounds				
1A. 2-Chloropheno (95-57-8)				
2A. 2,4-Dichloropheno (120-83-2)				
3A. 2,4-Dimethylpheno (105-67-9)				
4A. 4,6-Dinitro-O-Cresol (534-52-1)				
5A. 2,4-Dinitrophenal (51-28-1)				
6A. 2-witrophenol (100-02-7)				
7A. 4-witrophenol (88-75-5)				
8A. P-Chloro-M-Cresal (59-50-7)				
9A. Pentachlorophenol (87-86-5)				
10A. Phenol (108-95-2)				
11A. 2,4,6-Trichlorophenol (88-06-2)				

6.

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
GC/MS Fraction-Base/Neutral Compounds				
1B. Acenaphthene (83-32-9)				
2B. Acenaphtylene (208-96-8)				
3B. Anthracene (120-12-7)				
4B. Benzidine (542-88-1)				
5B. Benzo (a) Anthracene (56-55-3)				
6B. Benzo (a) Pyrene (50-32-8)				
7B. 3,4-Benzo-fluoranthene (205-99-2)				
8B. Benzo (ghi) Perylene (191-24-2)				
9B. Benzo (k) Fluoranthene (207-08-9)				
10B. Bis (2-Chloroethoxy) Methane (111-91-1)				
11B. Bis (2-Chloroethyl) Ether (111-44-4)				
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)				
13B. Bis (2-Chlorohexyl) Phthalate (117-81-7)				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)				
15B. Butyl Benzyl Phthalate (85-68-7)				
16B. 2-Chloronaphthalene (91-58-7)				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)				
18B. Chrysene (218-01-9)				
19B. Dibenzo (a,h) Anthracene (53-70-3)				
20B. 1,2-Dichlorobenzene (95-50-1)				
21B. 1,3-Dichlorobenzene (541-73-1)				



6. (continued)

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
GC/MS Fraction-Base/Neutral Compounds (continued)				
22B. 1,4-Dichlorobenzene (106-94-1)				
23B. 3,3-Dichlorobenzidine (91-94-1)				
24B. Diethyl-Phthalate (84-66-2)				
25B. Dimethyl Phthalate (131-11-3)				
26B. Di-N-Butyl-Phthalate (84-74-2)				
27B. 2,4-Dinitrotoluene (121-14-2)				
28B. 2,6-Dinitrotoluene (606-20-2)				
29B. Di-N-Octyl Phthalate(117-84-0)				
30B. 1,2-Diphenhydrazine (as Azobenzene) (122-66-7)				
31B. Fluoranthene (206-44-0)				
32B. Fluorene (86-73-7)				
33B. Hexachlorobenzene (118-71-1)				
34B. Hexachlorobutadiene (87-68-3)				
35B. Hexachlorocyclopentadiene (77-47-4)				
36B. Hexachloroethane (67-72-1)				
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)				
38B. Isophorone (78-59-1)				
39B. Naphthalene (91-20-3)				
40B. Bitrobenzene (98-95-3)				
41B. N-Nitrosodimethylamine (62-75-9)				
42B. N-Nitrosodi-N-Propylamine (621-64-7)				
43B. N-Nitrosodiphenylamine (86-90-6)				
44B. Phenanthrene (85-01-8)				
45B. Pyrene (129-00-0)				
46B. 1,2,4-Tri chlorobenzene (120-82-1)				

7.

Pollutant and Cas No. (if available)	Mark 'X'		Maximum Daily Value	
	a.	b.	(1) Concentration	(2) Mass
	believed present	believed absent		
GC/MS Fraction-Pesticides				
1P. Aldrin (309-00-2)				
2P. <i>a</i> BHC (319-84-6)				
3P. <i>B</i> -BHC (319-85-7)				
4P. γ -BHC (58-89-9)				
5P. δ -BHC (319-86-8)				
6P. Chlordane (57-74-9)				
7P. 4,4-DDT (50-29-3)				
8P. 4,4'-DDE (72-55-9)				
9P. 4,4' DDD (72-54-8)				
10P. Dieldrin (60-57-1)				
11P. <i>a</i> -Endosulfan (115-29-7)				
12P. <i>B</i> -Endosulfan (115-29-7)				
13P. Endosulfan Sulfate (1031-07-8)				
14P. Endrin (72-20-8)				
15P. Endrin Aldehyde (7421-93-4)				
16P. Heptachlor (76-44-8)				
17P. Heptachlor Epoxide (1024-57-3)				
18P. PCB-1242 (53469-21-9)				
19P. PCB-1254 11097-69-1				
20P. PCB-1221 (11104-28-2)				
21P. PCB-1232 (11141-16-5)				
22P. PCB-1248 (12672-29-6)				
23P. PCB-1260 (11096-82-5)				
24P. PCB-1016 (12674-11-2)				
25P. Toxaphere (8001-35-2)				
8. Dioxin				
2,3,7,8-Tetra-chlorodibenzp-P-Dioxin (1764-01-6)				Describe Results



AUTHORITY: section 644.026, RSMo 2016. Original rule filed Nov. 9, 1983, effective June 1, 1984. Amended: Filed June 13, 2018, effective Feb. 28, 2019.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

10 CSR 20-6.100 General Pretreatment Regulation

PURPOSE: This rule sets forth procedures to prevent the introduction of pollutants into publicly-owned treatment works which will interfere with the operation of publicly-owned treatment works, including interference with its use or disposal of municipal sludge, to prevent the introduction of pollutants into publicly-owned treatment works which will pass through the treatment works or otherwise be incompatible with these works, and to improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) The Environmental Protection Agency federal regulations, 40 CFR Parts 403 through 471, inclusive, that are in effect as of January 1, 2011, herein incorporated by reference, are available by writing to the Office of the Federal Register and the National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954. This rule does not incorporate any subsequent amendments or additions. The substitution of terms set forth shall apply in this rule in addition to any other modifications set forth in this rule.

(2) Provisions Incorporated.

(A) The provisions of the *General Pretreatment Regulations for Existing and New Sources of Pollution*, 40 CFR Part 403, as in effect January 1, 2011, are hereby adopted and incorporated by reference, not including any later amendments or additions, subject to the additions, modifications, and substitutions set forth in 10 CSR 20-6.100(4) through (13).

(B) The provisions of the following rules, as in effect January 1, 2011, are hereby adopted and incorporated by reference, not including any later amendments or additions, subject to the additions, modifications, or substitutions set forth in 10 CSR 20-6.100(4) through (13). The rules in this list refer to only the rules that contain pretreatment standards or limitations for industrial facilities that discharge to the local publicly-owned treatment works.

- 40 CFR Part 406 Grain Mills Point Source Category
- 40 CFR Part 413 Electroplating Point Source Category
- 40 CFR Part 414 Organic Chemicals, Plastics, and Synthetic Fibers
- 40 CFR Part 415 Inorganic Chemicals Manufacturing Point Source Category
- 40 CFR Part 417 Soap and Detergent Manufacturing Point Source Category
- 40 CFR Part 418 Fertilizer Manufacturing Point Source Category

- 40 CFR Part 419 Petroleum Refining Point Source Category
- 40 CFR Part 420 Iron and Steel Manufacturing Point Source Category
- 40 CFR Part 421 Nonferrous Metals Manufacturing Point Source Category
- 40 CFR Part 423 Steam Electric Power Generating Point Source Category
- 40 CFR Part 425 Leather Tanning and Finishing Point Source Category
- 40 CFR Part 426 Glass Manufacturing Point Source Category
- 40 CFR Part 428 Rubber Manufacturing Point Source Category
- 40 CFR Part 429 Timber Products Processing Point Source Category
- 40 CFR Part 430 Pulp, Paper, and Paperboard Point Source Category
- 40 CFR Part 433 Metal Finishing Point Source Category
- 40 CFR Part 435 Oil and Gas Extraction Point Source Category
- 40 CFR Part 437 Centralized Waste Treatment Point Source Category
- 40 CFR Part 439 Pharmaceutical Manufacturing Point Source Category
- 40 CFR Part 442 Transportation Equipment Cleaning Point Source Category
- 40 CFR Part 443 Effluent Limitations Guidelines for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources for the Paving and Roofing Materials (Tars and Asphalt) Point Source Category
- 40 CFR Part 444 Waste Combustors Point Source Category
- 40 CFR Part 446 Paint Formulating Point Source Category
- 40 CFR Part 447 Ink Formulating Point Source Category
- 40 CFR Part 455 Pesticide Chemicals
- 40 CFR Part 458 Carbon Black Manufacturing Point Source Category
- 40 CFR Part 461 Battery Manufacturing Point Source Category
- 40 CFR Part 464 Metal Molding and Casting Point Source Category
- 40 CFR Part 465 Coil Coating Point Source Category
- 40 CFR Part 466 Porcelain Enameling Point Source Category
- 40 CFR Part 467 Aluminum Forming Point Source Category
- 40 CFR Part 468 Copper Forming Point Source Category
- 40 CFR Part 469 Electrical and Electronic Components Point Source Category
- 40 CFR Part 471 Nonferrous Metals Forming and Metal Powders Point Source Category

Note: 40 CFR Part 412 Concentrated Animal Feeding Operations (CAFO) Point Source Category has been adopted at 10 CSR 20-6.300(4)(C).

(3) Federal statutes and regulations that are cited in 40 CFR Parts 403 through 471 that are not specifically adopted by reference shall be used as guidelines in interpreting the federal regulations in Parts 403 through 471.

(4) The “director” as used in the provisions of the *Code of Federal Regulations* which are incorporated by reference, means the director of staff of the Missouri Clean Water Commission or that person’s delegated representative.

(5) In the provisions of 40 CFR Part 403, following all occurrences of the citation to 40 CFR Part 136, add the phrase “or 10 CSR 20-7.015(9)(A)2.”

(6) In lieu of 40 CFR Section 403.4, the following shall apply:



(A) Local Law. The provisions of 10 CSR 20-6.100 shall not supersede any pretreatment requirements, including any standards or prohibitions established by any local law, as long as the local requirements are not less stringent than any set forth in the pretreatment requirements of 10 CSR 20-6.100 or other requirements or prohibitions established by the state or federal government.

(7) State Enforcement Actions. In lieu of 40 CFR Section 403.5(e), the following shall apply:

(A) If, within thirty (30) days after notice of an interference or pass-through violation has been sent by the state to the publicly-owned treatment works (POTW) and to persons or groups who have requested the notice, the POTW fails to commence appropriate enforcement action to correct the violation, the state may take appropriate enforcement action.

(8) Substitute “Missouri Clean Water Commission” for “Regional Administrator” in 40 CFR Section 403.6(a)(5).

(9) Substitute “Missouri Clean Water Law, Chapter 644, Water Pollution, Powers and Duties of the Commission – rules, procedure. Section 644.026(13), RSMo,” for “section 402(b)(1)(C) of the Act” in 40 CFR Section 403.8(e).

(10) Substitute “Missouri Department of Natural Resources” for the term “agency” in the 40 CFR Section 403.16.

(11) Confidentiality.

(A) In lieu of 40 CFR Section 403.14(a), the following shall apply:

1. Authorities. Any claim for confidentiality to the control authority must be in accordance with the Missouri Sunshine Law, Chapter 610, RSMo. If no claim is made at the time of submission, the control authority may make the information available to the public without further notice.

(B) The provisions of 40 CFR Section 403.14(c) are omitted.

(12) Pretreatment Authorization. Where the director is also the control authority, the director may issue a pretreatment authorization to a categorical industrial user which discharges industrial process wastewater to a POTW. This authorization will be used to set forth the conditions governing the user’s discharge to the POTW, where the POTW does not have an approved pretreatment program or the POTW has not issued discharge permits that meet the requirements set forth in 10 CSR 20-6.100(2) and (3).

(13) Judicial Relief.

(A) The director shall have authority to seek judicial relief pursuant to Missouri Clean Water Law, Chapter 644, including section 644.076, RSMo, for noncompliance by industrial users when the POTW has failed to act or has acted to seek such relief but has sought judicial relief which the director finds to be insufficient. The procedures for notice to dischargers where the POTW is seeking ex parte temporary judicial injunctive relief will be governed by applicable state or federal law and not by this provision.

(B) The director shall have authority to seek judicial relief pursuant to the Missouri Clean Water Law, Chapter 644, including section 644.076, RSMo, for noncompliance by industrial users where the director is the control authority.

AUTHORITY: section 644.041, RSMo 2000. Original rule filed Feb. 1, 1988, effective June 13, 1988. Amended: Filed March 1, 1996, ef-*

fective Nov. 30, 1996. Rescinded and readopted: Filed Nov. 9, 2011, effective Oct. 30, 2012.

**Original authority: 644.041, RSMo 1972, amended 1973.*

10 CSR 20-6.200 Storm Water Regulations

PURPOSE: This rule sets forth the requirements and process of application for permits for storm water discharges and the terms and conditions for the permits.

PUBLISHER’S NOTE: The secretary of state has determined that publication of the entire text of the material that is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Storm Water Permits – General.

(A) All persons who operate, use, or maintain existing storm water point sources or who disturb land that would result in a storm water point source shall apply to the department for the permits required by the Missouri Clean Water Law and these regulations. A permit must be obtained before beginning any new construction related to the above activities. The department issues these permits in order to enforce the Missouri Clean Water Law and regulations and administer the state operating permit program.

(B) Nothing shall prevent the department from taking action, including the requirement for issuance of any permits under the Missouri Clean Water Law and regulations, if any of the operations exempted should cause pollution of waters of the state or otherwise violate the Missouri Clean Water Law or these regulations. The following are exempt from storm water permit regulations:

1. Areas located on plant lands separate from the plant’s industrial activities, such as office buildings and accompanying parking lots, as long as the drainage from the excluded areas is not mixed with storm water drained from permitted areas;

2. *De minimis* discharges as defined by the department in general permits or by the Clean Water Commission;

3. Recycling collection points which are covered in a manner which prevents contact with storm water, including run on;

4. Farmlands, domestic gardens, or lands used for sludge management where domestic sludge is beneficially reused and which are not physically located in the confines of the facility producing the sludge;

5. Agricultural storm water discharges and irrigation return flows;

6. Sites that disturb less than one (1) acre of total land area which are not part of a common plan or sale. Land disturbance activity on an individual residential building lot is not considered as part of the overall subdivision unless the activity is by the developer to improve the lot for sale;

7. Linear, strip, or ribbon construction or maintenance operations meeting one (1) of the following criteria:

A. Grading of existing dirt or gravel roads which does not increase the runoff coefficient and the addition of an impermeable surface over an existing dirt or gravel road;

B. Cleaning or routine maintenance of roadside ditches,



sewers, waterlines, pipelines, utility lines, or similar facilities;

C. Trenches two (2) feet in width or less; or

D. Emergency repair or replacement of existing facilities as long as best management practices are employed during the emergency repair;

8. Mowing, brush hog clearing, tree cutting, or similar activities which do not grade, dig, excavate, or otherwise remove or kill the surface growth and root system of the ground cover;

9. Landfills which have received Missouri Department of Natural Resources approval to close and which are in compliance with any post-closure monitoring, management requirements, and deed restrictions, unless the department determines the facility is a significant discharger of storm water related pollutants;

10. Facilities built to control the release of only storm water are not subject to the construction permitting requirement of 10 CSR 20-6.010(4), provided that the storm water does not come in contact with process waste, process wastewater, or significant materials, and the storm water is not a significant contributor of pollutants;

11. Phase II municipal separate storm sewer systems (MS4) may request a waiver from the department in accordance with 40 CFR part 122.32(c), December 8, 1999, as published by the Environmental Protection Agency (EPA) Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004, are incorporated by reference. This rule does not incorporate any subsequent amendments or addition;

12. A regulated MS4 may share the responsibility under the following:

A. A MS4 may develop an agreement with another entity to assist with satisfying the National Pollutant Discharge Elimination System (NPDES) permit obligations or with implementing a minimum control measure if –

(I) The other entity currently implements the control measure;

(II) The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement; and

(III) A MS4 that relies on another entity to satisfy some of the permit obligations specifies the condition of the agreement, including a description of the obligations implemented by the other entity. The permitted MS4 remains ultimately responsible for compliance with the permit obligations if the other entity fails to implement the control measure (or component thereof);

B. In some cases, the department may recognize, either in an individual permit or in a general permit, that another governmental entity is responsible under a permit for implementing one (1) or more of the minimum control measures for a MS4. Where the department recognizes these dual responsibilities, the department may not require the MS4 to include such minimum control measure(s) in their program. The MS4 permit may be modified to include the requirement to implement a minimum control measure if the other entity fails to implement it; and

13. The director may waive the otherwise applicable requirements in a general permit for a storm water discharge from construction activities that disturb less than five (5) acres, but more than one (1) acre, where –

A. The value of the rainfall erosivity factor R in the Revised Universal Soil Loss Equation is less than five (5) during the period of construction activity. The rainfall erosivity factor is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, *Predicting Universal Soil Loss Equation*

(RUSLE), pages 21–64, dated January 1997, which is incorporated in this rule by reference. Copies may be obtained from EPA's Water Resource Center, Mail Code RC4100, 401 M Street SW, Washington, DC 20460. An operator must certify to the director that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five (5); or

B. A total maximum daily load (TMDL) approved or established by the department or by the EPA that addresses the pollutant(s) of concern without the need for storm water controls; and

C. Waste load allocations are not needed on non-impaired waters to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. For the purpose of paragraph (1)(B)13. and subparagraph (1)(B)13.C. of this rule, the pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity, or siltation) and any other pollutant that has been identified as a cause or a potential cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the department that the construction activity will take place, and that storm water discharges will occur, within the drainage area addressed by the TMDL or by an equivalent analysis.

(C) No Exposure Certification. A storm water permit under this rule may be excluded for industrial activities that do not expose materials to storm water. No exposure exists if the industrial materials and activities are protected from rain, snow, snowmelt, and/or runoff and the operator meets the requirements under paragraph (C)1. and subparagraph (C)2.C. of this subsection.

1. Industrial materials and activities protected by storm resistant shelter. No exposure means that all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product. To qualify a permit exclusion under this paragraph, the operator of the discharge must:

A. Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snowmelt, and runoff;

B. Complete and sign a certification that storm water is not contaminated by exposure to industrial materials and activities from the entire facility;

C. Re-submit the signed certification to the department once every five (5) years;

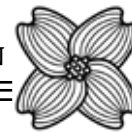
D. Allow the department to inspect the facility to determine compliance with the no-exposure conditions;

E. Make the no-exposure inspection reports available to the public upon request; and

F. For facilities that discharge through a MS4, submit a copy of the certification of no-exposure to the MS4 operator, as well as allow inspection and public reporting of the inspection findings by the MS4 operator.

2. Industrial materials and activities not requiring storm resistant shelter. An industrial site may qualify for this exclusion without a storm resistant shelter if –

A. Drums, barrels, tanks, and similar containers are tightly sealed, provided those containers are not deteriorated



and do not leak. Sealed means banded or otherwise secured and without operational taps or valves;

B. Adequately maintained vehicles are used in material handling; and

C. All industrial materials consist of final products, other than products that would be mobilized by storm water.

(D) Definitions.

1. Best management practices (BMPs). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

2. BMPs for land disturbance. A schedule of activities, practices, or procedures that reduces the amount of soil available for transport or a device that reduces the amount of suspended solids in runoff before discharge to waters of the state. Types of BMPs for storm water control include but are not limited to –

A. State-approved standard specifications and permit programs;

B. Employee training in erosion control, material handling and storage, and housekeeping of maintenance areas;

C. Site preparation such as grading, surface roughening, topsoiling, tree preservation and protection, and temporary construction entrances;

D. Surface stabilization such as temporary seeding, permanent seeding, mulching, sodding, ground cover including vines and shrubs, riprap, and geotextile fabric. Mulches may be hay, straw, fiber mats, netting, wood cellulose, corn or tobacco stalks, bark, corn cobs, wood chips, or other suitable material which is reasonably clean and free of noxious weeds and deleterious materials. Grasses used for temporary seeding shall be a quick-growing species such as rye grass, Italian rye grass, or cereal grasses suitable to the area and which will not compete with the grasses sown later for permanent cover;

E. Runoff control measures such as temporary diversion dikes or berms, permanent diversion dikes or berms, right-of-way or perimeter diversion devices, and retention and detention basins. Sediment traps and barriers, sediment basins, sediment (silt) fence, and staked straw bale barriers;

F. Runoff conveyance measures such as grass-lined channels, riprap, and paved channels, temporary slope drains, paved flumes, or chutes. Slope drains may be constructed of pipe, fiber mats, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials that adequately will control erosion;

G. Inlet and outlet protection;

H. Streambank protection such as a vegetative greenbelt between the land disturbance and the watercourse. Also, structural protection which stabilizes the stream channel;

I. A critical path method analysis or a schedule for performing erosion control measures; and

J. Other proven methods for controlling runoff and sedimentation.

3. Copetitioner. A person with apportioned legal, financial, and administrative responsibility based on land area under its control for filing Part 1 and Part 2 of a state operating permit for the discharge of storm water from municipal separate storm sewer systems. A copetitioner becomes a copermittee once the permit is issued.

4. Copermittee. A permittee to a state operating permit that is responsible only for permit conditions relating to the

discharge for which it is owner or operator, or both.

5. *De minimis* water contaminant source. A water contaminant source, point source, or wastewater treatment facility that is determined by the department to pose a negligible potential impact on waters of the state, even in the event of the malfunction of wastewater treatment controls or material handling procedures.

6. Field screening point. A specific location which during monitoring will provide representative information to indicate the presence of illicit connections or illegal dumping and quality of water within a municipal separate storm sewer system.

7. Illicit discharge. Any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to a state operating permit, other than storm water discharge permits and discharges from fire fighting activities.

8. Incorporated place (in Missouri, a municipality). A city, town, or village that is incorporated under the laws of Missouri.

9. Landfill. Location where waste materials are deposited on or buried within the soil or subsoil. Included are open dumps and landfills built or operated, or both, prior to the passage of the Missouri Solid Waste Management Law as well as those built or operated, or both, since.

10. Large municipal separate storm sewer system. This term is defined in 40 CFR part 122.26(b)(4), promulgated as of November 2, 2020, and hereby incorporated by reference in this rule, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004. This rule does not incorporate any subsequent amendments or additions.

11. MS4 means a municipal separate storm sewer system.

12. Major structural controls. Man-made retention basins, detention basins, major infiltration devices, or other structures designed and operated for the purpose of containing storm water discharges from an area greater than or equal to fifty (50) acres.

13. Medium municipal separate storm sewer system. This term is defined in 40 CFR part 122.26(b)(7), promulgated as of November 2, 2020, and hereby incorporated by reference in this rule, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004. This rule does not incorporate any subsequent amendments or additions.

14. Municipal separate storm sewer means a conveyance or system of conveyances including roads and highways with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, paved or unpaved channels, or storm drains designated and utilized for routing of storm water which –

A. Does not include any waters of the state as defined in section 644.016, RSMo;

B. Is owned and operated by the state, city, town, village, county, district, association, or other public body created by or pursuant to the laws of Missouri having jurisdiction over disposal of sewage, industrial waste, storm water, or other liquid wastes;

C. Is not a part or portion of a combined sewer system;

D. Is not a part of a publicly owned treatment works as defined in 40 CFR 122.2; and

E. Sewers that are defined as large or medium or small municipal separate storm sewer systems pursuant to paragraphs 10., 13., and 27. of this section, or designated under subsection (1)(B) of this rule.

15. Operator. The owner, or an agent of the owner, of a separate storm sewer with responsibility for operating and maintaining the effectiveness of the system.

16. Outfall. A point source as defined by 10 CSR 20-2.010 at



the point where a municipal separate storm sewer discharges and does not include open conveyances connecting two (2) municipal separate storm sewers, pipes, tunnels, or other conveyances which connect segments of waters of the state and are used to convey waters of the state.

17. Overburden. Any material of any nature consolidated or unconsolidated that overlays a mineral deposit excluding topsoil or similar naturally occurring surface materials that are not disturbed by mining operations.

18. Owner. A person who owns and controls the use, operation, and maintenance of a separate storm sewer.

19. Process wastewater. Any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

20. Receiving waters. Waters of the state as defined in this rule.

21. Recycling facilities. Locations where metals, paper, tires, glass, organic materials, used oils, spent solvents, or other materials are collected for reuse, reprocessing, or resale.

22. Regulated MS4 means –

A. A MS4 which serves a population of one thousand (1,000) or more within an urban area with a population of fifty thousand (50,000) or more people as determined by the latest decennial census by the Bureau of the Census, or any MS4 located outside of an urban area with a population of fifty thousand (50,000) or more people as determined by the latest decennial census by the Bureau of the Census serving a jurisdiction with a population of at least ten thousand (10,000) and a population density of one thousand (1,000) people per square mile or greater; or

B. A MS4 which is designated by the department when it is determined that the discharges from the MS4 have caused or have the potential to cause an adverse impact on water quality. An application shall be submitted within one hundred eighty (180) days of the designation by the department.

23. Runoff coefficient. The fraction of total rainfall that will appear at a conveyance as runoff.

24. Significant contributor of pollutants. A person who discharges or causes the discharge of pollutants in storm water which can cause water quality standards of the waters of the state to be violated.

25. Significant material or activity associated with industrial activity.

A. For the categories of industries identified in subsections (2)(A)–(C) of this rule, the term includes, but is not limited to, storm water discharged from industrial plant yards, immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility.

B. Significant materials include, but are not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments & Reauthorization Act of 1986 (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

C. Material received in drums, totes, or other secure containers or packages which prevent contact with storm

water, including run on, are exempted from the significant materials classification until the container has been opened for any reason. If the container is moved into a building or other protected area prior to opening, it will not become a significant material.

D. Empty containers which have been properly triple rinsed are not significant materials.

26. Construction activity means –

A. Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre. Construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) acre. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility; or

B. Any other construction activity designated by the department, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States.

27. Small municipal separate storm sewer system means –

A. Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district, or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act (CWA) that discharges to water of the United States;

B. Not defined as large or medium municipal separate storm sewer systems pursuant to paragraphs 10. and 13. of this subsection; and

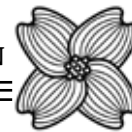
C. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as around individual buildings.

28. Storm water means storm water runoff, snowmelt runoff and surface runoff, and drainage.

29. Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw material storage areas at an industrial plant.

(2) Storm water discharge associated with industrial activity. The discharge from any conveyance which is used for collecting and conveying storm water which is not under a permit issued under 10 CSR 20-6.010 and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

(A) For the listed industries identified in subsection (2)(B) of this rule, the term includes but is not limited to storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; sites used for the application or disposal of process wastewaters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping



and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials and intermediate and finished products unless material is in closed cars or trailers and the loading/unloading operation does not expose material to storm water or otherwise pose risk of storm water contamination and areas where industrial activity has taken place in the past and where significant materials remain and are exposed to storm water.

(B) Industries subject to this requirement include –

1. Facilities classified with the following primary standard industry classification (SIC) are considered to be included in this paragraph: 10, Metal Mining; 12, Coal Mining; 13, Oil and Gas Extraction; 14, Nonmetallic Minerals; 24, Lumber and Wood Products; 26, Paper and Allied Products; 28, Chemical and Allied Products; 29, Petroleum Refining; 31, Leather Tanning and Finishing; 32, Stone, Clay, Glass, Concrete; 33, Primary Metal Industries; 3441, Fabricated Structural Metal; 373, Ship and Boat Building and Repair; 5171, Petroleum Bulk Stations and Terminals; and industries regulated under section 644.052.4, RSMo, except for those SICs addressed in paragraph (2)(B)4. of this rule;

2. Facilities classified with the following primary SIC are considered to be included in this paragraph: 40, Railroad; 41, Local, Suburban Transit, etc.; 42, Motor Freight Transportation and Warehousing; 43, United States Postal Service; 44, Water Transportation; 45, Air Transportation. Only those portions of the facility listed under this paragraph that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraph (2)(B)1., 3., or 4. of this rule are associated with industrial activity;

3. Facilities which meet the following definitions are considered to be included in this subsection:

A. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Hazardous waste generator sites which are exempt from interim status or permitting because they accumulate wastes on-site less than ninety (90) days are not included;

B. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this paragraph) including those that are subject to regulation under Subtitle D of RCRA;

C. Facilities involved in the recycling of materials including metal scrap yards, battery re-claimers, salvage yards, and automobile junk yards, including those with an SIC classification of 5015 and 5093;

D. Steam electric power generating facilities, including coal handling sites;

E. Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, with a design flow of 1.0 million gallons per day (mgd) or more or required to have an approved pretreatment program under 10 CSR 20-6.100; and

F. Industrial facilities that are federally, state, or municipally owned or operated; and

4. Facilities classified with the following primary SIC are considered to be included in this paragraph: 20, Food and Kindred Products; 21, Tobacco Products; 22, Textile Mill Products;

23, Apparel and Other Finished Products; 2434, Wood Kitchen Cabinets; 25, Furniture and Fixtures; 265, Paperboard Containers and Boxes; 267, Converted Paper and Paperboard Products; 27, Printing, Publishing, and Allied Industries; 283, Drugs; 285, Paints, Varnishes, Lacquers, and Enamels; 30, Rubber and Miscellaneous Plastics; 31, Leather and Leather Products (except for 311); 323, Glass Products; 34, Fabricated Metal Products (except for 3441); 35, Industrial and Commercial Machinery; 36, Electronic and Other Electrical Equipment; 37, Transportation Equipment (except for 373); 38, Measuring, Analyzing, and Controlling Instruments; 39, Miscellaneous Manufacturing Industries; 4221–25, Public Warehousing and Storage, only if any of the following activities and materials listed are exposed to storm water: discharges from industrial plant yards; material handling sites; sites used for the application or disposal of any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

(C) Application Requirements for Storm Water Discharges Associated With Industrial Activity.

1. Individual application. Dischargers of storm water associated with industrial activity shall apply for an individual permit or seek coverage under a promulgated storm water general permit. Facilities that are required to obtain an individual permit, or any discharge of storm water which the director is evaluating for designation under this paragraph and is not a municipal separate storm sewer, shall submit a state operating permit application in accordance with the following requirements:

A. A site plan map showing topography or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable of the facility including facility property line, each of its drainage and discharge structures, the drainage area of each storm water outfall, paved areas and buildings within the drainage area of each storm water outfall that drain to a storm water outfall, and those that do not drain to a storm water outfall, each past or present area used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied, each of its hazardous waste treatment, storage, or disposal facilities (including each area not required to have an RCRA permit which is used for accumulating hazardous waste under 10 CSR 25-5.262; each well where fluids from the facility are injected underground; springs and sink holes and other surface water bodies which receive storm water discharges from the facility;

B. An estimate of the area of impervious surfaces (including paved areas and building roofs) and the total area drained by each outfall, if known, and a narrative description of the following: significant materials that in the three (3) years prior to the submittal of this application have been treated, stored, or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal of materials; materials management practices employed in the three (3) years prior to the submittal of this application to minimize contact by these materials with storm water runoff; materials



loading and access areas; outdoor vehicle maintenance and cleaning areas; the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the ultimate disposal of any solid or fluid waste other than by discharge;

C. A certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested or evaluated for the presence of nonstorm water discharges which are not covered by a state operating permit. Tests for nonstorm water discharges may include smoke tests and dye tests as well as other appropriate tests or analysis. The certification shall include a description of the method used, the date of any testing and the on-site drainage points that directly were observed during a test;

D. Existing information regarding significant leaks or spills of toxic or hazardous pollutants at the facility that have taken place within the three (3) years prior to the submittal of this application;

E. Quantitative data based on samples collected during storm events from all outfalls containing a storm water discharge associated with industrial activity shall be submitted. When an applicant has two (2) or more outfalls that are similar in nature, an individual outfall can be designated as representative and samples only collected from the representative outfall. Quantitative data will be submitted for the following parameters:

(I) Any pollutant limited in an effluent guideline to which the facility is subject;

(II) Any pollutant listed in the facility's state operating permit for its process wastewater (if the facility is operating under an existing state operating permit);

(III) Oil and grease, pH, biochemical oxygen demands (BOD₅), chemical oxygen demands (COD), total suspended solids (TSS), conductivity, total phosphorus, total Kjeldahl nitrogen, and nitrate plus nitrite nitrogen;

(IV) Any information on the discharge required by the appropriate application form;

(V) Flow measurements or estimates of the flow rate, the total amount of discharge for the storm event(s) sampled, and the method of flow measurement or estimation; and

(VI) The date and duration (in hours) of the storm event(s) sampled, rainfall measurements of the storm event which generated the sampled runoff, and the duration between the storm event sampled and the end of the previous measurable (greater than one-tenth inch (0.1") rainfall) storm event (in hours), at least one-tenth inch (0.1") of rainfall per storm water event are required to be considered a valid storm water event. The reporting rainfall station, if possible, should be within one (1) mile of the sampled outfall and shall be capable of providing rainfall measurements in at least tenths of an inch;

F. Sampling and flow measurements or estimates shall be made to assess both the initial discharge loading and the total loading through the outfall during the measured rainfall event. A grab sample shall be taken within the first sixty (60) minutes of discharge. Sampling shall continue at the frequency of at least one (1) sample each sixty- (60-) minute period. Sampling should continue for three (3) hours or until discharge ceases, whichever is first. A sample aliquot representing the initial discharge shall be analyzed separate from the event composite sample. The composite sample shall include an aliquot from the initial discharge sample. The composite sample should be flow-weighted using approved procedures. Samples shall be

collected, preserved, and analyzed according to 40 CFR Part 136 or other methods approved by the department. When analysis is required, grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus;

G. Applicants shall provide other information the director reasonably may require to determine whether to issue a permit; and

H. Within one (1) year after commencement of discharge, operators of new sources or new discharges which are composed in part or entirely of storm water must include estimates for the pollutants or parameters listed in subparagraph (2)(C)1.E. of this rule, unless this data has already been reported under the monitoring requirements of the state operating permit for the discharge.

2. The operator of an existing or new discharge composed entirely of storm water from an oil or gas exploration, production, processing or treatment operation, or transmission facility is not required to submit a permit application in accordance with paragraph (2)(C)1. of this rule, unless the facility –

A. Has a discharge which is contaminated by contact with, or that has come into contact with, any overburden, raw materials, intermediate products, finished product, by-product, or waste products located on the site of the operation;

B. Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required at any time since November 16, 1987;

C. Contributes to a violation of a water quality standard.

3. The operator of an existing or new discharge composed entirely of storm water from a mining operation is not required to submit a permit application unless the discharge has come into contact with any overburden, raw material, intermediate products, finished product, by-product, or waste products located on the site of the operations.

(3) Land Disturbance and Construction Activity.

(A) The owner/operator of an existing or new storm water discharge from a land disturbance or construction activity shall provide –

1. The location (including a map);

2. The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

3. The name of the receiving water; and

4. Applicable requirements under 40 CFR part 122.21(f), April 1, 1983, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004, are incorporated by reference. This rule does not incorporate any subsequent amendments or additions.

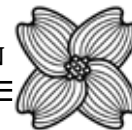
(B) Land Disturbance and Construction Activity. Storm water permits shall be the responsibility of the owner/operator of the site. The owner/operator is responsible to see that all contractors comply with the requirements of the permit.

1. A land disturbance permit must be obtained before the date construction operations begin.

2. Land disturbance permits must be applied for and issued electronically unless a waiver is obtained from the department.

(4) Application requirements for large, medium municipal separate storm sewer discharges.

(A) All Phase I large and medium MS4s were determined in accordance with the 1990 census. Application requirements for new Phase I large and medium MS4s based on the 1990 census were in accordance with 40 CFR 122.26(d), November 16, 1990, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004, are



incorporated by reference. This rule does not incorporate any subsequent amendments or additions.

(B) Reapplication minimum requirements for large and medium MS4s are as follows:

1. Name and mailing address of the permittee(s) that operate the MS4;

2. Names and titles of the primary administrative and technical contacts for the municipal permittee(s);

3. Minimum application requirements as established in 40 CFR 122.21(f), April 1, 1983, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington, DC 20004, are incorporated by reference. This rule does not incorporate any subsequent amendments or additions;

4. Any proposed changes or improvements to the storm-water management program, including monitoring activities for the upcoming five- (5-) year term of the permit unless the proposed changes have already been submitted in the most recent annual report; and

5. If applicable, any changes in co-applicants/co-permittees.

(5) Application Requirements for Phase II MS4s.

(A) General Permit Option. Applicants seeking coverage under a general permit for small MS4 discharges shall submit the department's most recent version of application forms K or L, unless approved for an alternate form, and must develop and submit descriptions of storm water management programs designed to reduce pollutants in storm water runoff to protect water quality of receiving waters. The application must include program descriptions for at least the following six (6) minimum control measures:

1. Public education and outreach on storm water impacts. The public education program should inform individuals and households about impacts of storm water discharges on water bodies and steps which can be taken to reduce or prevent storm water pollution;

2. Public involvement/participation process. A program must be developed which at a minimum complies with state and local public notice requirements;

3. Illicit discharge detection and elimination. Discharges to MS4s of wastewater other than those consisting entirely of storm water are considered "illicit discharges" except for discharges permitted under other state operating permits or directly from fire fighting activities. A program to detect and eliminate such discharges must be developed;

4. Construction site storm water runoff control. A program to control discharges of storm water and sediment from construction sites and activities must be developed. The program must be designed to protect receiving waters from sediment and other pollutants such as petroleum products, solid wastes, fertilizers, pesticides, and other construction related chemicals;

5. Post-construction storm water management in new development and redevelopment. A program must be developed to address storm water runoff from new development and redevelopment projects that result in land disturbance of greater than or equal to one (1) acre, including projects less than one (1) acre that are part of a larger common plan of development or sale, and discharge into the MS4; and

6. Pollution prevention/good housekeeping for municipal operations. A program must be developed which addresses pollution prevention and good housekeeping from municipal operations. The program must include a training component and have the ultimate goal of preventing or reducing impacts from storm water runoff from all municipal operations

including those not currently required to be permitted as storm water associated with industrial activities.

A. Implementation and enforcement of these six (6) minimum measures will be a requirement of the general permit when issued. Guidance on the content of these programs is available in the "EPA Phase II Storm Water Regulations" dated December 8, 1999.

(B) Site-Specific Option. Applicants who do not wish to be covered under a general permit for small MS4 discharges can apply for a site-specific permit by submitting the most recent version of form K or L and by submitting program descriptions of the six (6) minimum measures as outlined in paragraphs (5)(A)1.-6. Additional information regarding issues to be addressed in the site-specific permit shall accompany the application. Implementation and enforcement of the six (6) minimum measures will be one of the requirements of any issued permit.

(C) Copermittee Option.

1. The department encourages cooperation between potential small MS4 applicants when addressing application requirements and in the development, implementation, and enforcement of the six (6) minimum measures under issued permits. Applicants within one (1) urban area, or within a common watershed, or in an area served in common by one (1) service provider should consider applying as coapplicants to share the financial and administrative responsibilities of the application process and to become co-permittees under an issued permit.

2. Applications from copermittees shall include the requirements of either subsection (5)(A) or (B) and in addition shall contain information designating responsibilities of each coapplicant in regard to development, implementation, and enforcement of the six (6) minimum measures.

(D) Operating permits for small MS4s will contain the minimum requirements as established in 40 CFR part 122.34, November 2, 2020, as published by the EPA Docket Center, EPA West, 1301 Constitution Avenue NW, Washington DC, 20004, and incorporated by reference. This rule does not incorporate any subsequent amendments or additions.

(6) Permit Requirements.

(A) The director may issue a general permit for storm water discharges in accordance with the following:

1. The general permit shall be written to cover a category of discharges described in the permit except those covered by individual permits within a geographic area. The area shall correspond to existing geographic or political boundaries, such as –

A. Designated planning areas under Sections 208 and 303 of the federal Clean Water Act;

B. City, county, or state political boundaries or special sewer districts chartered by the state;

C. State highway systems; and

D. Any other appropriate division or combination of boundaries;

2. The general permit shall be written to regulate a category of point sources if the sources all –

A. Involve the same or substantially similar types of operations;

B. Discharge the same types of wastes;

C. Require the same operating conditions;

D. Require the same or similar monitoring; and

E. In the opinion of the director, are more appropriately controlled under a general permit than under individual permits;



3. General permits may be issued, modified, revoked, and reissued or terminated in accordance with applicable requirements of this rule and the permit. To be included under a general permit, a permittee must submit an application on forms supplied by the department;

4. The director may require any person authorized by a general permit to apply for and obtain an individual operating permit. Any interested person may petition the director to require a permittee to apply for an individual permit. Cases where an individual operating permit may be required include, but are not limited to, the following:

A. Effluent limitation guidelines are promulgated for point sources covered by a general state operating permit;

B. The discharge(s) is a significant contributor of pollutants. In making this determination, the director may consider the following factors:

(I) The location of the discharge with respect to waters of the state;

(II) The size of the discharge;

(III) The quantity and nature of the pollutants discharged to waters of the state; and

(IV) Other relevant factors;

C. The discharge(s) is a significant contributor of pollution which impairs the beneficial uses of the receiving stream;

D. The discharger is not in compliance with the conditions of the general operating permit; or

E. A water quality management plan containing requirements applicable to point sources is approved;

5. Any owner or operator authorized by a general permit may request to be excluded from the coverage of the general permit by applying for an individual permit. The owner or operator shall submit an application with reasons supporting the request to the director. The request shall be granted by issuing an individual permit if the reasons cited by the owner or operator are adequate to support the request.

A. When an individual operating permit is issued to an owner or operator otherwise subject to a general operating permit, the applicability of the general permit to the individual operating permittee is automatically terminated on the effective date of the individual permit.

B. A source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked and that it be issued a general permit. Upon revocation of the individual permit and issuance of the general permit to the permittee, the general permit shall apply to the source. The source shall be included under the general permit only if it meets all the requirements for coverage under the general permit;

6. Petitions may be submitted to the director requesting the development of a general permit for a group of facilities or activities meeting the criteria listed in paragraph (2)(B)1.

A. Information required in a petition must include –

(I) A full description of the group including names, addresses, and locations and the industrial activities conducted by group members;

(II) Any significant materials stored, used, loaded, unloaded, treated, or disposed outdoors at these facilities;

(III) The existence and permit status of any other wastewater discharges from the group;

(IV) Analytical data which exists for any group members' storm water runoff;

(V) A summary of the history of spills, leaks, and complaints relating to significant materials used, stored, treated, or disposed of on these facilities; and

(VI) Management practices used to prevent or minimize materials contacting storm water.

B. Within ninety (90) days of receipt of the petition, the director shall notify the applicant that –

(I) A general permit will be developed;

(II) A general permit will not be developed and reason; or

(III) Further information is required to make a decision; and

C. If the director has indicated that a general permit will be developed for specific facilities/activities, application for general permit as indicated in 10 CSR 20-6.010(13) may be submitted in lieu of an individual industrial storm water runoff permit application;

7. General permits shall have conditions to meet any applicable technology or water quality based standard;

8. A general permit will be issued to cover the geographical area of any city, county, state, or federal government agency or other utility with approval of the department that performs or contracts for land disturbance activities. The general permit will be issued for all activities that are conducted within the geographic area under contract by, or performed by, the entity. The applicant will need only to secure one (1) general permit for all activities that occur during the life of the permit.

(B) Site-specific industrial permits issued pursuant to this rule shall contain the following:

1. Identification of the permit holder; and

2. Effluent limitation if necessary to protect waters of the state. The limitation shall be based on one (1) or more of the following:

A. The application and information filed by the permittee;

B. Effluent guidelines promulgated by the department or Environmental Protection Agency for the facility;

C. Best professional judgment of the permit writer;

D. A water quality determination made by the department; or

E. BMP requirements that are proposed in city-wide management programs;

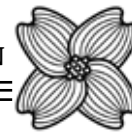
3. Monitoring and reporting requirements; and

4. A schedule of compliance and interim limitations allowing up to three (3) years from permit issuance to gain compliance with the effluent limitation.

(7) Qualifying Local Programs.

(A) Regulated municipal separate storm sewer systems (MS4s) may request department approval to implement a qualifying local program. A qualifying local program is a formal recognition that a regulated MS4 has a department-approved local sediment and erosion control program that meets or exceeds the requirements listed in 10 CSR 20-6.200(7) (B) for construction and land disturbance activities occurring within the regulated MS4's jurisdiction. While a regulated MS4 has an approved qualifying local program, construction and land disturbance activities in its jurisdiction for which the regulated MS4 has issued a land disturbance or equivalent permit do not require an NPDES operating permit from the department.

(B) Qualifying local programs are for storm water discharges associated with land disturbance activities only, which includes clearing, grubbing, excavating, grading, and other activities that result in the destruction of the root zone and have potential to cause negative impacts to receiving waterbodies. Each approved qualifying local program shall include reviewing site plans, inspecting construction sites, and



taking enforcement action against owners or operators of sites that are polluting the waters of the state within its jurisdiction.

1. Qualifying local programs are only applicable to regulated MS4s, as defined in paragraph (1)(D)22. of this rule, including large, medium, or small MS4s, as defined in paragraphs (1)(D)10., 13., and 27., respectively, of this rule.

2. At a minimum, a qualifying local program shall include –

A. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices that meet or exceed applicable state requirements;

B. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause negative impacts to water quality;

C. Requirements for construction site operators to develop and implement a storm water pollution prevention plan. A storm water pollution prevention plan includes site descriptions, descriptions of appropriate control measures to protect water quality, copies of approved state, tribal, or local requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges; and

D. Requirements to submit a site plan for review that incorporates considerations of potential water quality impacts.

3. Regulated MS4s seeking to become recognized as having a qualifying local program may apply by sending a letter to the department requesting formal recognition pursuant to this subsection.

4. The department will review each request to become recognized as a qualifying local program submitted by a regulated MS4.

A. The department will review the regulated MS4's land disturbance program and compliance history to determine eligibility and to ensure that the program meets or exceeds state requirements outlined in the Missouri land disturbance permit and the MS4 permit.

B. If the department concurs that the regulated MS4 is eligible to have a qualifying local program and that its land disturbance program meets or exceeds applicable state requirements, then the department will incorporate the local requirements specific to that regulated MS4's qualifying local program into its permit. If covered by a site-specific permit, the department will modify its MS4 permit if necessary. If under a general two-step permit, the MS4 shall modify and public notice its storm water management plan for thirty (30) days to incorporate the local requirements specific to that regulated MS4's qualifying local program.

C. For site-specific MS4 permits, the regulated MS4 must submit a modified storm water management plan within thirty (30) days of the MS4 permit modification. For general two-step permits, the regulated MS4 must submit the modified storm water management plan after the public notice is complete.

D. After the department receives and approves the modified storm water management plan, the department will send official correspondence to the regulated MS4 indicating that the department has approved its qualifying local program.

5. A regulated MS4 may end its qualifying local program at its discretion upon written notice to the department. The qualifying local program shall remain effective for at least ninety (90) days after the date the written notice is sent to the department, ending on a date determined by the regulated MS4. This provides time for the regulated MS4 to notify all affected construction site permit holders of the need to obtain

a Missouri state operating permit for land disturbance.

6. The department may revoke any qualifying local program designation if the regulated MS4 does not comply with this rule or the program requirements as established. The department's revocation may be appealed to the Missouri Clean Water Commission by the regulated MS4 or by any adversely affected party within thirty (30) days of the date of revocation. The appeal shall be filed with the Administrative Hearing Commission, 131 W. High St., PO Box 1557, Jefferson City, MO 65101 and shall be a contested case and be conducted pursuant to section 644.066, RSMo. The filing of an appeal shall stay the department's revocation. If the revocation is not appealed, or upon the final disposition of an appeal in which the revocation is sustained, the qualifying local program shall remain effective for ninety (90) days after the department's revocation or final disposition of the appeal, whichever occurs later. This provides time for the regulated MS4 to notify all affected construction site permit holders of the need to obtain a Missouri state operating permit for land disturbance.

(8) Silvicultural Activities.

(A) The department does not require storm water permitting for silviculture activities conducted in accordance with 33 U.S. Code 1342(l)(3), January 2014, as published by the U.S. Government Publishing Office, available at <https://bookstore.gpo.gov/> or for mail orders print and fill out order form online and mail to U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000.

*AUTHORITY: sections 644.026 and 644.036, RSMo 2016. * Original rule filed July 15, 1991, effective Oct. 1, 1992. Amended: Filed Sept. 14, 2001, effective May 30, 2002. Amended: Filed Feb. 3, 2009, effective Oct. 30, 2009. Amended: Filed June 13, 2018, effective Feb. 28, 2019. Amended: Filed June 30, 2022, effective Feb. 28, 2023. Amended: Filed July 15, 2025, effective Feb. 28, 2026.*

**Original authority: 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014, and 644.036, RSMo 1972, amended 1973, 2000, 2002, 2006, 2009, 2011.*

10 CSR 20-6.300 Concentrated Animal Feeding Operations

PURPOSE: This rule sets forth the requirements and procedures for operating permits for concentrated animal feeding operations. Minimum federal requirements are incorporated, and additional state requirements are included to provide increased environmental protection of sensitive watersheds.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Definitions.

(A) Definitions as set forth in 10 CSR 20-2.010 and 10 CSR 20-8.300 shall apply to the terms when used in this rule unless otherwise defined in subsection (B) below.

(B) Other applicable definitions are incorporated as follows:

1. Animal – Domestic animals, fowls, or other types of live-stock except for aquatic animals;



2. Animal unit – A unit of measurement to compare various animal types at an animal feeding operation. One (1) animal unit equals the following: 1.0 beef cow or feeder, cow/calf pair, veal calf, or dairy heifer; 0.5 horse; 0.7 mature dairy cow; 2.5 swine weighing over 55 pounds; 10 swine weighing less than 55 pounds; 10 sheep, lamb, or meat and dairy goats; 30 chicken laying hens or broilers with a wet handling system; 82 chicken laying hens without a wet handling system; 55 turkeys in grow-out phase; 125 chicken broilers, chicken pullets, or turkey poults in brood phase without a wet handling system;

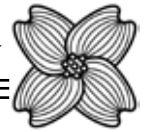
3. Animal unit equivalent – Any unique animal type, not listed, that has a similar manure characteristic as one (1) of the listed animal unit categories. The department shall make the determination of an animal unit equivalent based upon manure characteristics that include manure volume and nutrient concentration;

4. Animal feeding operation (AFO) – A lot, building, or complex at an operating location where animals are stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve- (12-) month period, and crops, vegetation, forage growth, or post-harvest residues cannot be sustained over at least fifty percent (50%) of the animal confinement area within the normal crop growing season;

5. Catastrophic storm event – A precipitation event of twenty-four- (24-) hour duration that exceeds the twenty-five- (25-) year, twenty-four- (24-) hour storm event as defined by the most recent publication of the National Weather Service Climate Atlas;

6. Chronic weather event – The chronic weather event will be based upon an evaluation of the ten (10) year return rainfall frequency over a ten- (10-) day, ninety- (90-) day, one hundred eighty- (180-) day, and three hundred sixty-five- (365-) day operating period. It is preferred the University of Missouri's Missouri Climate Center will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in the state;

7. Class I and Class II operation – An AFO or CAFO's class size is based on the operating level in animal units of an individual animal type at one (1) operating location. Once a CAFO becomes a Class I operation, the animal units of all confined animals at the operating location are summed to determine whether the operation is Class IA, IB, or IC. Operations that are smaller than the Class II category are considered unclassified. The class categories, sorted by animal type, are presented in the following chart:



1 Animal Unit =

1.0	Beef cow, feeder, veal calf, cow/calf pair, and dairy heifer	10	Sheep, lambs, and meat and dairy goats
0.5	Horses	30	Chicken laying hens, pullets, and broilers with a wet handling system
0.7	Mature Dairy cows		
2.5	Swine weighing over 55 pounds	55	Turkeys in grow-out phase
10	Swine weighing under 55 pounds	82	Chicken laying hens without a wet handling system
5	Ducks with a wet handling system	125	Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system
300	Ducks without a wet handling system		

Animal Class Category

Animal Class Category	Class IA 7,000 AUs*	Class IB 3,000 to 6,999 AUs*	Class IC 1,000 to 2,999 AUs*	Class II 300 to 999 AUs*
Beef cows, feeder cattle, veal calves, cow/calf pairs, and dairy heifers	7,000	3,000 to 6,999	1,000 to 2,999	300 to 999
Horses	3,500	1,500 to 3,499	500 to 1,499	150 to 499
Mature Dairy Cows	4,900	2,100 to 4,899	700 to 2,099	200 to 699
Swine weighing over 55 pounds	17,500	7,500 to 17,499	2,500 to 7,499	750 to 2,499
Swine weighing under 55 pounds	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Sheep, lambs, and meat and dairy goats	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Chicken laying hens, pullets, and broilers with a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	9,000 to 29,999
Chicken laying hens without a wet handling system	574,000	246,000 to 573,999	82,000 to 245,999	24,500 to 81,999
Turkeys in grow-out phase	385,000	165,000 to 384,999	55,000 to 164,999	16,500 to 54,999
Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system	875,000	375,000 to 874,999	125,000 to 374,999	37,500 to 124,999
Ducks without a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	10,000 to 29,999
Ducks with a wet handling system	35,000	15,000 to 34,999	5,000 to 14,999	1,500 to 4,999

*Animal Units



8. Concentrated animal feeding operation (CAFO) – An AFO that meets one (1) of the following criteria:

A. Class I operation;

B. Class II operation where either one (1) of the following conditions are met:

(I) Pollutants are discharged into waters of the state through a manmade ditch, flush system, or other similar man-made device; or

(II) Pollutants are discharged directly into waters of the state which originate outside of and pass over, across, or through the production area or otherwise come into contact with the animals confined in the operation; or

C. An unclassified operation that is designated as a CAFO in accordance with subsection (2)(D) of this rule;

9. Critical watersheds – defined as the following:

A. Watersheds for public drinking water lakes (L1 lakes defined in 10 CSR 20-7.031 and identified in Table G);

B. Watersheds located upstream away from the dam from all drinking water intake structures on lakes including the watershed of Table Rock Lake;

C. Areas in the watershed and within five (5) miles upstream of any stream or river drinking water intake structure, other than those intake structures on the Missouri and Mississippi Rivers; and

D. Watersheds of the Current (headwaters to Northern Ripley County Line), Eleven Point (headwaters to Hwy. 142), and Jacks Fork (headwaters to mouth) Rivers;

10. Discharge – A CAFO is said to discharge when it is designed, constructed, operated, or maintained such that a discharge of process waste to surface waters of the state will occur. A CAFO that discharges could include one (1) that continuously discharges process wastewater to surface waters of the state, as well as one that may only have an intermittent and sporadic discharge. Discharges of agricultural storm water is a nonpoint source and therefore not included within this definition;

11. Dry process waste – A process waste mixture which may include manure, litter, or compost (including bedding, compost, mortality by-products, or other raw materials which is commingled with manure) and has less than seventy-five percent (75%) moisture content and does not contain any free draining liquids;

12. Flush system – Any animal waste moving or removing system utilizing the force of periodic liquid flushing as the primary mechanism for removing manure from animal containment buildings, as opposed to a primarily mechanical or automatic device. This definition does not include confinement buildings that utilize deep or shallow underfloor pits with pull plug devices;

13. Land application area – Agricultural land which is under the operational control of the CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied;

14. Multi-year phosphorus application – Phosphorus applied to a field in excess of the crop needs for that year. When multi-year phosphorus applications are followed, no additional manure, litter, or process wastewater is applied to the same land in subsequent years until the applied phosphorus has been removed from the field via harvest and crop removal or until subsequent soil testing allows for nitrogen-based rates;

15. No-discharge operation – A CAFO is considered no-discharge if the operation is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge to waters of the state. A discharge of agricultural storm water is a nonpoint source and therefore not included within this

definition;

16. Occupied residence – A residential dwelling which is inhabited at least fifty percent (50%) of the year;

17. Operating location – For purposes of determining CAFO classification, an operating location includes all contiguous lands owned, operated, or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common or noncontiguous lands if they use a common area for the land application of wastes. State and county roads are not considered property boundaries for purposes of this rule. Two (2) or more animal feeding operations under a common ownership are considered to be a single animal feeding operation if they adjoin each other or if they use a common area for the land application of wastes;

18. Overflow – The discharge of process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or stormwater can be contained by the structure;

19. Process wastewater – Water which carries or contains manure, including manure commingled with litter, compost, or other animal production waste materials used in the operation of the CAFO. Also includes water directly or indirectly used in the operation of the CAFO for any or all of the following: spillage or overflow from confined animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; and water resulting from the washing, or spray cooling of confined animals. Process wastewater also includes any water which comes into contact with any raw materials, products, or by-products feed, milk, eggs, or bedding;

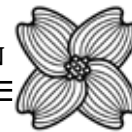
20. Production area – The non-vegetated portions of an operation where manure, litter, or process wastewater from the AFO is generated, stored, and/or managed. The production area includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes, but is not limited to, open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes, but is not limited to, feed and silage, silos, pads, and bunkers, and bedding materials. The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing operation and any area used in the storage, treatment, or disposal of animal mortalities;

21. Public building – A building open to and used routinely by the public for public purposes;

22. Vegetated buffer – A narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters;

23. Waste management system – Includes all structures and equipment, used to collect, store, transfer, or treat manure, litter, and/or process waste water. A waste management system will be considered in operation when animals are placed in confinement; and

24. Wet handling system – Wet handling system is the handling of process wastewater that contains more than seventy



five percent (75%) moisture content or has free draining liquids. A wet handling system includes, but is not limited to, lagoons, pits, tanks, all gravity outfall lines, recycle pump stations, recycle force mains, and appurtenances.

(2) Applicability and Application for Coverage.

(A) Scope of Rule. This rule applies solely to manure, litter, and/or process wastewater management systems at concentrated animal feeding operations (CAFOs). CAFOs are point sources and are subject to both state and federal National Pollutant Discharge Elimination System (NPDES) regulations in accordance with sections 640.710 and 644.026, RSMo.

(B) Permit Coverage Required – Any CAFO owner or operator shall obtain one (1) of the operating permits listed below prior to operating a waste management system at a concentrated animal feeding operation unless otherwise exempted under subsection (2)(E) of this rule:

1. NPDES general or site-specific operating permits – Owners or operators of Class I CAFOs that discharge and Class II AFOs that are defined or designated as a CAFO, must obtain an NPDES operating permit. Class I CAFOs that do not discharge may also apply for coverage under an NPDES operating permit;

2. State no-discharge operating permit – Owners or operators of Class I CAFOs that do not discharge and do not apply for coverage under an NPDES operating permit shall obtain and maintain coverage under a state no-discharge operating permit.

(C) CAFO Designation at Class II Size AFOs.

1. The department may designate an AFO as a concentrated animal feeding operation upon determining that it is a significant contributor of pollutants to waters of the state. In making such designation, the department shall consider the following factors:

- A. The size of the AFO and the amount of wastes reaching waters of the state;
- B. The location of the AFO relative to waters of the state;
- C. The means of conveyance of animal wastes and process waste into waters of the state;
- D. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes manure and process waste into waters of the state; and
- E. Other relevant factors.

2. No AFO shall be designated under this section unless the department has conducted an on-site inspection of the operation and determined that the operation should and could be regulated as a concentrated animal feeding operation. In addition, no AFO with number of animals below a Class II size operation may be designated as a CAFO unless –

A. Pollutants are discharged into waters of the state through a manmade ditch, flushing system, or other similar manmade device; or

B. Pollutants are discharged directly into the waters of the state which originate outside of the AFO and pass over, across, or through the AFO, or otherwise come into direct contact with the animals confined in the operation.

(D) Exemptions.

1. In accordance with section 640.758, RSMo, livestock markets and auctions are exempt from the provisions of 10 CSR 20-6.300(3)(B)–(C), 10 CSR 20-6.300(3)(H), and 10 CSR 20-6.300(7).

2. Permits are not required for nonpoint source discharges, agricultural stormwater discharges, and return flows from irrigated agriculture. A precipitation related discharge of manure, litter, or process wastewater from land application areas under the control of a CAFO is considered an agricultural stormwater discharge when manure, litter, or process wastewater is ap-

plied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.

(E) Operating Permit Applications. This section describes the application process and requirements for CAFO operating permits. A separate application for each operating location must be submitted to the department.

1. The department will not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the waste management systems, only adherence to rules and regulations. The issuance of permits will not include approval of such features.

2. The application shall include at a minimum the following documents:

A. Title page of engineering report or similar document sealed by a professional engineer including name of the operation, date the report was prepared, name and address of firm preparing the report, seal and signature of the engineer, and a statement indicating the project was designed in accordance with 10 CSR 20-8.300;

B. Narrative project summary. This shall describe the existing and any proposed modifications to operating conditions including the number of confinement buildings or areas, the total design capacity in animal units and actual animal numbers for each type of animal, and an explanation of the existing and/or proposed modifications to the waste management system;

C. Include the amount of manure generated annually, storage volume, and days of storage of all manure storage structures, including mortality composter;

D. A recent aerial or topographic map showing the extent of the production area including;

- (I) All existing and proposed confinement buildings, open lots, manure storage structures;
- (II) Surface waters and areas subject to a one hundred (100) year flood event within or adjacent to the production area; and

(III) Production area setback distances in accordance with 10 CSR 20-8.300(5)(B);

E. Nutrient Management Plan –

- (I) NPDES permit – applications shall include the operations' nutrient management plan; or
- (II) State no-discharge permit – applications for a new permit shall include the operations' nutrient management plan;

F. Applications for Class I CAFOs shall also include:

- (I) An aerial or topographic map that meets the requirement of 10 CSR 20-6.300(3)(C)4.;
- (II) Proof of neighbor notice to all parties listed in 10 CSR 20-6.300(3)(C)2.

3. When an application is submitted incomplete or any of the required permit documents are deficient, or if additional information is needed including, but not limited to, engineering design plans, the department will act in one (1) of the following ways:

A. The department may return the entire permit application back to the applicant for re-submittal; or

B. The applicant and/or the applicant's engineer will be notified of the deficiency and will be provided time to address department comments and submit corrections. Processing of the application may be placed on hold until the applicant has corrected identified deficiencies.

4. Applicants who fail to correct deficiencies and/or fail to satisfy all department comments after two (2) certified department comment letters shall have the application returned



as incomplete and the permit fee(s) shall be forfeited. The department will grant reasonable time extensions when the applicant requests additional time to respond to department comments, however, such requests must be in writing and must occur within the time frame set by the department.

5. When the department has received all documents and information necessary for a properly completed operating permit application, including appropriate permit fees, the department will, review the application and said documents for compliance with this regulation and 10 CSR 20-8.300 and, if met, act in one (1) of the following ways:

A. For an operation seeking coverage under the state no-discharge general operating permit the department will issue the state no-discharge general operating permit; or

B. For an operation seeking coverage under the NPDES operating permit the department will post for fifteen (15) days on the department's webpage a notice of the pending CAFO NPDES permit. The notice will include an announcement of the opportunity for public review and comment on the CAFO's nutrient management plan and draft NPDES permit. The department will consider all comments before issuing the operating permit.

(3) Operating Permit Requirements. These requirements apply to all operating permits unless otherwise specified.

(A) General Requirements.

1. All operating permits required by this rule shall be issued in accordance with applicable provisions of 10 CSR 20-6.010, 10 CSR 20-6.011, 10 CSR 20-6.020, and 10 CSR 20-8.300. When the state regulations referenced within these rules are found to be incompatible with the requirements of 10 CSR 20-6.300, the provisions of 10 CSR 20-6.300 will take precedence.

2. In addition to the state requirements found in this rule, all CAFO NPDES permits shall be issued in compliance with applicable federal regulation as set forth in 40 CFR 122.42(e), and 40 CFR 412, Subpart A through Subpart D, July 30, 2012, incorporated by reference, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954.

3. Permits shall allow the CAFO to operate at a level of animal units not to exceed its respective class size (i.e., Class IC or IB). When determining the appropriate classification, a rolling twelve- (12-) month average method will be used. The rolling twelve- (12-) month average shall at no time exceed the upper threshold limit of the CAFO's designated class size. CAFOs may change animal numbers and weights within its respective class size; however, such changes must not subsequently violate applicable effluent limitations found in section (4) of this rule or adversely impact the storage and handling capacities of the waste management system and may be subject to other appropriate conditions or limitations. If a Class I CAFO has reduced animal numbers and is operating as a Class II or smaller AFO, the operation may request termination of their operating permit. The rolling twelve- (12-) month average for the last twelve (12) months shall be submitted with the termination request. The department will then conduct an inspection to determine if the permit can be terminated. If the operation increases animal numbers to the Class I operating size, the owner or operator of the CAFO shall apply for an operating permit.

4. Permits shall require the CAFO operator to provide the recipient of any manure, litter, or process wastewater transfer, a current manure nutrient analysis.

5. Mortalities must not be disposed of in any liquid manure or process wastewater system, unless specifically designed to

handle them. Mortalities must be handled in such a way as to prevent the discharge of pollutants to surface waters and prevent the creation of a public health hazard.

(B) Buffer Distances. Buffer distances shall be in accordance with section 640.710, RSMo unless exempted below:

1. When a CAFO proposes an expansion or modification but does not increase to a larger classification size, the buffer distance requirements shall be applicable only to the proposed confinement buildings and wastewater storage structures unless exempted by paragraph 2. of this subsection. Neighbor notice requirements of subsection (C) of this section shall apply to all existing and proposed confinement buildings and wastewater storage structures. If the proposed expansion or modification results in an increase to a larger classification size, the buffer distance and neighbor notice requirement of the larger classification size will apply to all existing and proposed confinement buildings and wastewater storage structures unless exempted by paragraph 4. of this subsection.

2. A concentrated animal feeding operation and any future modification or expansion of a CAFO is exempt from buffer distance requirements, but not neighbor notice requirements, when it meets all of the following criteria:

A. The CAFO was in existence prior to June 25, 1996; and

B. The CAFO does not expand to a larger classification size.

3. When existing animal feeding operations or concentrated animal feeding operations expand to a larger class size, the buffer distances shall not apply to the portion of the operation in existence as of June 25, 1996.

4. Buffer distances are not applicable to residences owned by the concentrated animal feeding operation or a residence from which a written agreement for operation is obtained from the owner of that residence. When shorter buffer distances are proposed by the operation and allowed by the department, the written agreement for a shorter buffer distance shall be recorded with the county recorder and filed in the chain of title for the property of the land owner agreeing to the shorter buffer distance.

(C) Neighbor Notice Requirements. Neighbor notice shall be conducted in accordance with section 640.715, RSMo.

1. Acceptable forms of proof for submittal that neighbor notice was sent include copies of mail delivery confirmation receipts, return receipts, or other similar documentation.

2. All concentrated animal feeding operations shall submit, as part of the operating permit application, an aerial or topographic map of the production area. The maps shall show the operation layout, buffer distances, property lines, and property owners within one and one-half (1 1/2) times the buffer distance.

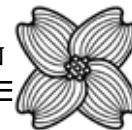
3. The neighbor notice will expire if an operating permit application has not been received by the department within twelve (12) months of initiating the neighbor notice requirements.

(D) Inspections.

1. Permits shall require the following minimum visual inspections at the production area:

A. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater storage;

B. Daily inspection of water lines, including wastewater, drinking water, and cooling water lines that can be visually observed within the production area. The inspection of the drinking water and cooling water lines shall be limited to the lines that possess the ability to leak or drain to wastewater storage structures or may come in contact with any process waste;



C. Weekly inspections of the manure, litter, and process wastewater impoundments. The inspection will note the level in liquid impoundments as indicated by the depth marker; and

D. Once per day when in use conduct leak inspections on equipment used for land application of manure or process wastewater.

2. Permits shall require the following minimum visual inspections at the land application area:

A. Monitoring of the perimeter of the application fields once per day during land application to ensure that applied wastewater does not run off the fields where applied;

B. Monitor for drifting from spray irrigation; and

C. Hourly inspections of aboveground irrigation pipelines when in use.

3. Permits shall require that any deficiencies found as a result of inspections be corrected as soon as possible.

(E) Record Keeping. This section pertains to all CAFO operating permits. All records required by this section shall be made available to the department upon request.

1. Permits shall require that the permittee maintain the following records for the production area for a period of five (5) years from the date they are created:

A. A copy of construction and operating permits, permit applications, and the nutrient management plan;

B. A once-per-week record documenting the daily visual inspections performed as required in 10 CSR 20-6.300(3)(D) above;

C. Weekly records of the depth of the manure and process wastewater in the liquid impoundments as indicated by the depth marker;

D. Records documenting any actions taken to correct deficiencies. Deficiencies not corrected within thirty (30) days shall be accompanied by an explanation of the factors preventing immediate correction;

E. Records of mortalities management and practices used by the operation which verify compliance with 10 CSR 20-6.300(3)(A)5. above;

F. Records of the date, time, and estimated volume of any overflow; and

G. Records of the date, recipient name and address, and approximate amount of manure, litter, or process wastewater transferred to another person.

2. Permits shall require that the permittee maintain the following records for the land application area for a period of five (5) years from the date they are created:

A. Expected crop yields;

B. The date(s) manure, litter, or process wastewater is applied to each field;

C. Weather conditions at time of application and for twenty-four (24) hours prior to and following application;

D. Test methods used to sample and analyze manure, litter, process wastewater, and soil;

E. Results from manure, litter, process wastewater, and soil sampling;

F. Explanation of the basis for determining manure application rates, as provided in the technical standards;

G. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;

H. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;

I. The method used to apply the manure, litter, or process wastewater; and

J. Date(s) of manure application equipment inspection.

(F) Annual Reports. This section is required for NPDES operating permits only. Annual reports shall comply with the federal regulation 40 CFR 122.42(e)(4), "Annual reporting requirements for CAFOs," Jan. 8, 2018, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954, which is hereby incorporated by reference and does not include later amendments or additions.

(G) Best Management Practices (BMPs) – Each CAFO subject to 10 CSR 20-6.300, that land applies manure, litter, or process wastewater must do so in accordance with the following practices:

1. Nutrient management plan. Operating permits shall require a nutrient management plan be developed and implemented according to the requirements of 10 CSR 20-6.300(5). The plan must also incorporate the requirements of paragraph (3)(G)2. below. The CAFO must begin implementation of the plan upon the date of operating permit coverage;

2. Manure, litter, and process wastewater applied to the land application area must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the *Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard* (NMTS) approved by the Clean Water Commission on March 4, 2009, in accordance with 40 CFR 123.36, as published by the Missouri Department of Natural Resources, Division of Environmental Quality, Water Protection Program, PO Box 176, Jefferson City, MO 65102-0176, which is hereby incorporated by reference into this rule without any later amendments or additions, or an alternative but equally protective standard subsequently approved by the department that includes, but is not limited to, the following:

A. Include a field-specific assessment of the potential for phosphorus transport from the field to surface waters and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters;

B. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multiyear phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the department;

C. Require that manure be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil be analyzed a minimum of once every five (5) years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater;

D. Include conditions that will ensure manure, litter, and process wastewater applications are conducted in a manner that prevents surface runoff of process wastewater beyond the edge of the field. Such measures will include, but not be limited to, restricting the timing, soil conditions, and placement of manure during land application; and

E. Include appropriate land application setbacks that at a minimum require manure, litter, and process wastewater be land applied not closer than one hundred feet (100') from any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters unless the operation complies with one (1) of the following compliance alternatives:

(I) For surface and subsurface applications, a setback



consisting of a thirty-five foot- (35'-) wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited; or

(II) The CAFO demonstrates that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the one hundred foot (100') setback;

3. Land application shall occur during daylight hours only. Night time applications shall only occur when the department has approved the night time land application plan.

(H) Additional Requirements for Class IA CAFOs only. Secondary containments shall be installed in accordance with section 640.730, RSMo. Inspections shall be conducted in accordance with Section 640.725, RSMo, in addition to the following:

1. Inspections shall also include the structural integrity of the collection system and containment structures along with any unauthorized discharges from the flush and wet handling systems. Records shall be maintained by the facility for a minimum of three (3) years on forms approved by the department.

2. Secondary containment structure(s) or earthen dam(s) shall be sized to contain a minimum volume equal to the maximum capacity of flushing in any twenty-four- (24-) hour period from all gravity outfall lines, recycle pump stations, and recycle force mains.

3. Class IA concentrated animal feeding operations (both new and those operations that wish to expand to Class IA size) are prohibited from the watersheds of the Current, Jacks Fork, and Eleven Point Rivers as described in 10 CSR 20-6.300(1)(B)9.D.

4. A record of inspections when the water level is less than twelve inches (12") from the emergency spillway shall be included with the operations annual report.

(4) Design Standards and Effluent Limitations.

(A) Effluent Limitations Applicable to All Class I CAFOs.

1. New and expanding CAFOs shall be designed and constructed in accordance with 10 CSR 20-8.300.

2. Effluent limits for subsurface waters shall be in accordance with 10 CSR 20-7.015(7)(E).

3. NPDES operating permits shall also comply with effluent limitations as set forth in 40 CFR Part 412, Subpart A through Subpart D, July 30, 2012, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954, which are hereby incorporated by reference.

4. There shall be no discharge of manure, litter, or process wastewater to waters of the state from a CAFO as a result of the land application of manure, litter, or process wastewater to land application areas under the operational control of the CAFO, except where it is an agricultural storm water discharge. When manure, litter, or process wastewater has been land applied in accordance with subsection (3)(G) of this rule, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of the CAFO is considered to be an agricultural storm water discharge.

5. A chronic weather event is a series of wet weather events and conditions that can delay planting, harvesting, and prevent land application and dewatering practices at wastewater storage structures. When wastewater storage structures are in danger of an overflow due to a chronic weather event, CAFO owners shall take reasonable steps to lower the liquid level in the structure through land application, or other suitable means, to prevent overflow from the storage structure. Reasonable steps may include, but are not limited to, fol-

lowing the department's current guidance on "Wet Weather Management Practices for CAFOs." These practices shall be designed specifically to protect water quality during wet weather periods. A discharge resulting from a land application conducted during wet weather conditions is not considered an agricultural stormwater discharge and is subject to permit requirements. The department will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in Missouri. The determination will be based upon an evaluation of the one-in-ten (1- in-10) year return rainfall frequency over a ten- (10-) day, ninety- (90-) day, one hundred eighty- (180-) day, and three hundred sixty five- (365-) day operating period.

(B) Additional Limitations for State No-Discharge Operating Permits.

1. There shall be no discharge of manure, litter, or process wastewater into surface waters of the state from the production area.

2. If at any time a CAFO's waste management system is found to be discharging, the department may revoke the CAFO's no-discharge permit and require the CAFO to seek coverage under an NPDES permit.

3. If a discharge occurs at a CAFO with a state no-discharge permit, the owner or operator must submit to the department for review and approval the following documentation: a description of the discharge, including the date, time, cause, duration, and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge that will ensure that a discharge from this cause does not occur in the future.

4. When a discharge occurs at a CAFO, the CAFO will be allowed to maintain coverage under the no-discharge permit when the following two (2) conditions are met:

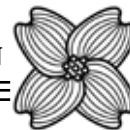
A. The department determines that the specific cause has been appropriately corrected so that the CAFO does not discharge; and

B. The CAFO has not had two (2) discharges at a given site for the same cause in any five- (5-) year period.

5. If a CAFO has two (2) separate discharge events brought about by the same cause, the department may terminate the no-discharge permit in which case the CAFO will be required to seek coverage under a NPDES permit.

(C) Effluent Limitations Applicable to Class II and Smaller Sized AFOs. When a Class II or smaller sized AFO is designated as a CAFO by the department, the specific effluent limitations will be based upon the department's best professional judgment. The specific effluent limits shall not be more stringent than those for Class I CAFOs.

(5) Nutrient Management Plans (NMP)—In accordance with paragraph (3)(G)1. of this rule, operating permits shall require the development and implementation of a nutrient management plan. A portion of a CAFO's nutrient management plan includes the documents within a CAFO's operating permit application and annual reports. The plan must comply with the requirements found within the Nutrient Management Technical Standard which will satisfy the criteria in subsections (G), (H), and (I) below. The NMP shall be maintained according to the requirements of paragraph (3)(G)2. of this rule. For NPDES permits only, any revisions to the NMP must be submitted to the department for review with the changes from the previous version identified. Substantial changes to the terms of the NMP incorporated into the NPDES operating will require a permit modification and a fifteen- (15-) day public notice period. The plan must, at a minimum, address the following areas:



(A) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

(B) Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

(C) Ensure that clean water is diverted, as appropriate, from the production area. NMPs shall include, as necessary, controls, measures, or BMPs to properly manage storm water runoff at the operation. This would apply only to activities in or around the land application or production area that is under the control of the CAFO owner or operator, whether it is owned, rented, or leased. Examples of such activities could include winter feeding areas, stockpiling of manure and raw materials, or any other regulated CAFO activity that will contribute pollutants to waters of the state;

(D) Prevent direct contact of confined animals with waters of the state;

(E) Ensure that chemicals and other contaminants handled within animal production facilities are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

(F) Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state;

(G) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;

(H) Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and

(I) Identify specific records that will be maintained to document the implementation and management of the minimum elements described in subsections (A) through (H) of this section.

(6) Closure of Waste Storage Structures.

(A) Class I operations that cease operation, or plan to close lagoons and other waste storage structures, shall comply with 10 CSR 20-6.010 as well as the requirements in this section –

1. Other concentrated animal feeding operations that cease operation shall either close the waste storage structures in accordance with the closure requirements in subsection (6) (B) of this rule or shall continue to maintain all storage structures so that there is not a discharge to waters of the state.

(B) Closure Requirements –

1. Lagoons and waste storage structures shall be closed by removal and land application of all wastewater and sludge at agricultural rates for fertilizer not to exceed the maximum nutrient utilization of the land application site and vegetation grown and shall be applied at controlled rates so that there will be no discharge to waters of the state; and

2. After removal and proper land application of wastewater and sludge, the earthen basins may be demolished by removing the berms, grading, and establish at least seventy percent (70%) plant density over one hundred percent (100%) of the site so as to provide erosion control, or the basin may be left in place for future use as a farm pond or similar uses.

(7) Concentrated Animal Feeding Operation Indemnity Fund

for Class IA CAFO.

(A) Participation in the Concentrated Animal Feeding Operating Indemnity Fund and its administration shall be in accordance with sections 640.740 through 640.747, RSMo.

(B) For facilities permitted after June 25, 1996, the annual fee shall commence on the first anniversary of the operating permit

(C) In no event shall a refund exceed the unencumbered balance in the Concentrated Animal Feeding Operation Indemnity Fund.

(D) Each payment shall identify the following: state operating permit number, payment period, and permittee's name and address. Persons who own or operate more than one (1) operation may submit one (1) check to cover all annual fees, but are responsible for submitting the appropriate information to allow proper credit for each permit file account.

(E) Annual fees are the responsibility of the permittee. Failure to receive a billing notice is not an excuse for failure to remit the fees.

AUTHORITY: sections 640.710 and 644.026, RSMo 2016. Original rule filed June 1, 1995, effective Jan. 30, 1996. Amended: Filed March 1, 1996, effective Nov. 30, 1996. Amended: Filed July 9, 1998, effective March 30, 1999. Amended: Filed May 12, 2008, effective Feb. 28, 2009. Amended: Filed July 14, 2011, effective April 30, 2012. Amended: Filed Jan. 26, 2016, effective Oct. 30, 2016. Amended: Filed June 13, 2018, effective Feb. 28, 2019. ***

**Original authority: 640.710, RSMo 1996 and 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000, 2012, 2014.*

***Pursuant to Executive Order 21-07, 10 CSR 20-6.300, subsection (2)(B) and paragraphs (3)(A)3., (3)(B)1., and (4)(A)1. was suspended from April 23, 2020 through August 31, 2021.*