

**Title 10—DEPARTMENT OF NATURAL RESOURCES  
Division 20—Clean Water Commission  
Chapter 7—Water Quality**

**10 CSR 20-7.015 Effluent Regulations**

**WORKING DOCUMENT**

**The Department presents these draft materials for  
stakeholder review and discussion only.  
Subject to the Red Tape Reduction review.**

The Missouri Department of Natural Resources has identified 10 CSR 20-7.015, Effluent Regulations, as a potential rulemaking amendment. This workgroup has been convened for the purpose of informal and voluntary public participation and discussions regarding the development of this rule prior to initiating formal rulemaking.

Under Governor Greitens' leadership, all state agencies are working to reduce regulations and other government processes that unnecessarily burden individuals and businesses while doing little to protect or improve public health, safety, and our natural resources. The Missouri Department of Natural Resources is committed to limiting regulation to what is necessary to protect Missouri's environment, implementing statutory mandates, and maintaining state control of programs. Any further proposed changes to rules discussed on this page are being developed with these goals in mind. We welcome your comments to help ensure that our regulations provide required protections but do not add unnecessary costs.

**Title 10--DEPARTMENT OF  
NATURAL RESOURCES  
Division 20--Clean Water Commission  
Chapter 7--Water Quality**

10 CSR 20-7.010 Prevention of Pollution from Wells to Subsurface Waters of the State  
(Rescinded July 10, 1980)

AUTHORITY: section 204.026, RSMo 1978. Original rule filed June 19, 1974, effective June 29, 1974. Amended: Filed April 1, 1975, effective April 11, 1975. Rescinded: Filed Oct. 12, 1979, effective July 10, 1980.

**10 CSR 20-7.015 Effluent Regulations**

*PURPOSE: This rule sets forth the limits for various pollutants which are discharged to the various waters of the state. The two previous rules 10 CSR 20-6.050 and 10 CSR 20-7.010 have been rescinded and this rule combines certain aspects of both rules and modifies the format of the effluent regulations. This rule also complies with the latest changes to the Federal Clean Water Act, P.L. 97-117 (1981).*

*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) Designations of Waters of the State.

(A) Definitions.

1. Acute Toxicity Test—a test used to determine the concentration of an effluent that causes an adverse effect (usually death) in a group of test organisms during a short-term exposure.

2. Allowable Effluent Concentration—the concentration of a toxicant or the parameter toxicity in the receiving water after mixing, sometimes referred to as the receiving water concentration or the in-stream waste concentration.

3. Chronic Toxicity Test—A short-term test, usually ninety-six (96) hours or longer in duration, in which sub-lethal effects such as reduced growth or reproduction rates are measured in addition to lethality.

4. Representative sample— **As described by [a small quantity whose characteristics represent the nature and volume of the whole. For permitting purposes representative sampling shall be consistent with] 40 CFR Part 122.48 September 26, 1984, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.**

5. Toxic Unit—a measure of effluent toxicity generally expressed as acute toxicity unit or chronic toxicity unit. The larger the toxicity unit, the greater the toxicity.

6. Toxic Unit—Acute—one-hundred (100) times the reciprocal of the effluent concentration that causes fifty percent (50%) of the organisms to die in an acute toxicity test.

7. Toxic Unit—Chronic—one-hundred (100) times the reciprocal of the highest effluent concentration that causes no observable effect on **or inhibitions up to twenty-five (25%)** of the test organism in a chronic toxicity test.

(B) For the purpose of this rule, the waters of the state are divided into the following categories:

1. The Missouri and Mississippi Rivers (section (2) of this rule);

2. Lakes and reservoirs, including natural lakes and any impoundments created by the construction of a dam across any waterway or watershed. An impoundment designed for or used as a disposal site for tailings or sediment from a mine or mill shall be considered a wastewater treatment device and not a lake or reservoir. Releases to lakes and reservoirs include discharges into streams one-half (1/2) stream mile (.80 km) before the stream enters the lake as measured to its conservation pool (section (3) of this rule);

3. A losing stream is a stream which distributes thirty percent (30%) or more of its flow through natural processes such as through permeable geologic materials into a bedrock aquifer within two (2) miles flow distance downstream of an existing or proposed discharge. Flow measurements to determine percentage of water loss must be corrected to approximate the seven (7)-day Q10 stream flow. If a stream bed or drainage way has an intermittent flow or a flow insufficient to measure in accordance with this rule, it may be determined to be a losing stream on the basis of channel development, valley configuration, vegetation development, dye tracing studies, bedrock characteristics, geographical data, and other geological factors. Only discharges which in the opinion of the Missouri Department of Natural Resources (department) reach the losing section and which occur within two (2) miles upstream of the losing section of the stream shall be considered releases to a losing stream. A list of known losing streams is available in the Water Quality Standards, 10 CSR 20-7.031 Table J—Losing Streams. Other streams may be determined to be losing by the department (section (4) of this rule);

4. Metropolitan no-discharge streams. These streams and the limitations on discharging to them are listed in Table F of 10 CSR 20-7.031 Water Quality Standards;

5. Special streams—Outstanding National Resource Waters and Outstanding State Resource Waters, as listed in Tables D and E of 10 CSR 20-7.031 (section (6) of this rule);

6. Subsurface waters in aquifers (section (7) of this rule); and

7. All other waters except as noted in paragraphs (1)(B)1.–6. of this rule (section (8) of this rule).

(C) Sections (2) through (8) of this rule establish requirements for discharges to the waters specified in these sections, and the requirements of section (9) of this rule apply to all discharges. The requirements of this rule do not apply to stormwater discharges; effluent limits for stormwater discharges are prescribed in 10 CSR 20-6.200 Storm Water Regulations.

(2) Effluent Limitations for the Missouri and Mississippi Rivers. In addition to the requirements of section (9) of this rule, the following limitations represent the maximum amount of pollutants which may be discharged from any point source, water contaminant source, or wastewater treatment facility.

(A) Discharges from wastewater treatment facilities which receive primarily domestic waste or from publicly-owned treatment works (POTWs) shall undergo treatment sufficient to conform to the following limitations:

1. Biochemical Oxygen Demand<sub>5</sub> (BOD<sub>5</sub>) and Total Suspended Solids (TSS) equal to or less than a monthly average of thirty milligrams per liter (30 mg/L) and a weekly average of forty-five milligrams per liter (45 mg/L);

2. pH shall be maintained in *[the range from six to nine (6–9) standard units]* **accordance with 40 CFR 133.102 “Secondary Treatment Regulation” October 16, 1984, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.;**

3. Exceptions to paragraphs (2)(A)1. and 2. of this rule are as follows:

A. If the facility is a wastewater lagoon, the TSS shall be equal to or less than a monthly average of eighty milligrams per liter (80 mg/L) and a weekly average of one hundred twenty milligrams per liter (120 mg/L) and the pH shall be maintained above six 6.0, and the BOD<sub>5</sub> shall be equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L);

B. If the facility is a trickling filter plant the BOD<sub>5</sub> and TSS shall be equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L);

C. Where the use of effluent limitations set forth in this section is known or expected to produce an effluent that will endanger or violate water quality, the department will set specific effluent limitations for individual dischargers to protect the water quality of the receiving streams. *[When a waste load allocation is conducted for a stream or stream segment, all permits for discharges in the study area shall be modified to reflect the limits established in the study in accordance with any applicable compliance schedule];*

D. The department may require more stringent limitations than authorized in paragraphs (2)(A)1. and 2. and subparagraphs (2)(A)3.A., B., and C. of this rule under the following conditions:

(I) If the facility is an existing facility, the department may set the BOD<sub>5</sub> and TSS limits based upon an analysis of the past performance, rounded up to the next five milligrams per liter (5 mg/L) range; and

(II) If the facility is a new facility, the department may set the BOD<sub>5</sub> and TSS limits based upon the design capabilities of the plant considering geographical and climatic conditions;

(a) A design capability study has been conducted for new lagoon systems. The study reflects that the effluent limitations should be BOD<sub>5</sub> equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L) and TSS equal to or less than a monthly average of seventy milligrams per liter (70 mg/L) and a weekly average of one hundred ten milligrams per liter (110 mg/L).

(b) A design capability study has been conducted for new trickling filter systems and the study reflects that the effluent limitations should be BOD<sub>5</sub> and TSS equal to or less than a monthly average of forty milligrams per liter (40 mg/L) and a weekly average of sixty milligrams per liter (60 mg/L);

*[4. Sludges removed in the treatment process shall not be discharged. Sludges shall be routinely removed from the wastewater treatment facility and disposed of or used in accordance with a sludge management practice approved by the department;]* and

*[5.]4.* When the wastewater treatment process causes nitrification which affects the BOD<sub>5</sub> reading, the permittee can petition the department to substitute carbonaceous BOD<sub>5</sub> in lieu of regular BOD<sub>5</sub> testing. If the department concurs that nitrification is occurring, the department will set a carbonaceous BOD<sub>5</sub> at five milligrams per liter (5 mg/L) less than the regular BOD<sub>5</sub> in the operating permit.

(B) The suspended solids which are present in stream water and which are removed during treatment may be returned to the same body of water from which they were taken, along with any additional suspended solids resulting from the treatment of water to be used as public potable water or industrial purposes using essentially the same process as a public water treatment process. This includes the solids that are removed from potable waters that are withdrawn from wells located in the alluvial valley of the Missouri and Mississippi Rivers.

(C) Monitoring Requirements.

1. The department will develop a wastewater and sludge sampling program based on design flow that shall require, at a minimum, one (1) wastewater sample per year for each fifty thousand (50,000) gallons per day (gpd) of effluent, or fraction thereof, except that—

[A. *Point sources that discharge less than twenty-five thousand (25,000) gpd may only be required to submit an annual report;*]

[B.]A. The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit; and

[C.] B Sludge sampling will be established in the permit.

[2. *Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).*]

[3.]2. Sample types **will** [shall] be as follows:

A. Samples collected from lagoons **recirculating media beds** may be grab samples;

B. Samples collected from mechanical plants **will** [shall] be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

C. Sludge samples will be grab samples unless otherwise specified in the operating permit.

[4.]3. The monitoring frequency and sample types stated in subsection (2)(C) of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

(3) Effluent Limitations for the Lakes and Reservoirs.

(A) In addition to the requirements of section (9) of this rule, the following limitations represent the maximum amount of pollutants which may be discharged from any point source, water contaminant source, or wastewater treatment facility to a lake or reservoir designated in 10 CSR 20-7.031 as L2 and L3 which is publicly owned. Releases to lakes and reservoirs include discharges into streams one-half (1/2) stream mile (.80 km) before the stream enters the lake as measured to its conservation pool.

1. Discharges from wastewater treatment facilities which receive primarily domestic waste or from POTWs shall undergo treatment sufficient to conform to the following limitations:

A. BOD<sub>5</sub> and TSS equal to or less than a monthly average of twenty milligrams per liter (20 mg/L) and a weekly average of thirty milligrams per liter (30 mg/L);

B. pH shall be maintained in [*the range from six to nine (6–9) standard units*] **accordance with 40 CFR 133.102 “Secondary Treatment Regulation” October 16, 1984, as published by the Office of the Federal Resister, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.;**

C. Where the use of effluent limitations set forth in section (3) of this rule are reasonably expected to exceed applicable water quality standards, the department may either—conduct waste load allocation studies in order to arrive at a limitation which protects the water quality of the state or set specific effluent limitations for individual dischargers to protect the water quality of the receiving streams. When a waste load allocation study is conducted for a stream or stream segment, all permits for discharges in the study area shall be modified to reflect the limits established in the waste load allocation study in accordance with any applicable compliance schedule; **and**

*[D. Sludges removed in the treatment process shall not be discharged. Sludges shall be routinely removed from the wastewater treatment facility and disposed of or used in accordance with a sludge management practice approved by the department; and]*

*[E.]* **D.** When the wastewater treatment process causes nitrification which affects the BOD<sub>5</sub> reading, the permittee can petition the department to substitute carbonaceous BOD<sub>5</sub> in lieu of regular BOD<sub>5</sub> testing. If the department concurs that nitrification is occurring, the department will set a carbonaceous BOD<sub>5</sub> at five milligrams per liter (5 mg/L) less than the regular BOD<sub>5</sub> in the operating permit.

(B) Monitoring Requirements.

1. The department will develop a wastewater and sludge sampling program based on design flow that will require, at a minimum, one (1) wastewater sample per year for each twenty-five thousand (25,000) gpd of effluent, or fraction thereof, except that—

*[A. Point sources that discharge less than five thousand (5,000) gpd may only be required to submit an annual report;]*

*[B.]* **A.** The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit; and

*[C.]* **B.** Sludge sampling will be established in the permit.

*[2. Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).]*

3. Sample types **will** *[shall]* be as follows:

A. Samples collected from lagoons **and recirculating media beds** may be grab samples;

B. Samples collected from mechanical plants **will** *[shall]* be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

C. Sludge samples **will** *[shall]* be grab samples unless otherwise specified in the operating permit.

4. The monitoring frequency and sample types stated in paragraphs (3)(B)1. through 3. of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

(C) For lakes designated in 10 CSR 20- 7.031 as L1, which are primarily used for public drinking water supplies, there will be no discharge into the watersheds above these lakes from domestic or industrial wastewater sources regulated by these rules. Discharges from potable water treatment plants, such as filter wash, may be permitted. Separate storm sewers will be permitted, but only for the transmission of storm water. Discharges permitted prior to the effective date of this requirement may continue to discharge so long as the discharge remains in compliance with its operating permit.

(D) For lakes designated in 10 CSR 20- 7.031 as L3 which are not publicly owned, the discharge limitations shall be those contained in section (8) of this rule.

(E) In addition to other requirements in this section, discharges to Lake Taneycomo and its tributaries between Table Rock Dam and Power Site Dam (and excluding the discharges from the dams) shall not exceed five tenths milligrams per liter (0.5 mg/L) of phosphorus as a monthly average. Discharges meeting both the following conditions shall be exempt from this requirement:

1. Those permitted prior to May 9, 1994; and

2. Those with design flows of less than twenty-two thousand five hundred (22,500) gpd. *[All existing facilities whose capacity is increased would be subject to phosphorus limitations.]* The department may allow the construction and operation of interim facilities without phosphorus control provided their discharges are connected to regional treatment facilities with phosphorus control not later than three (3) years after authorization. *[Discharges in the White River basin and outside of the area designated above for phosphorus limitations shall be monitored for phosphorus discharges, and the frequency of monitoring shall be the same as that for BOD<sub>5</sub> and TSS, but not less than annually. The department may reduce the frequency of monitoring if the monitoring data is sufficient for water quality planning purposes].*

(F) In addition to other requirements in this section, discharges to Table Rock Lake watershed, defined as hydrologic units numbered 11010001 and 11010002, shall not exceed five-tenths milligrams per liter (0.5 mg/L) of phosphorus as a monthly average. **Discharges meeting both of the following conditions are exempt from this requirement.**

1. Those permitted prior to November 30, 1999; and

2. Those with design flows less than twenty-two thousand five hundred (22,500) gpd.

**(G) Discharges in the White River basin and outside of the areas identified in (3)(E) and (F) of this section for phosphorus limitations shall be monitored for phosphorus discharges, and the frequency of monitoring shall be the same as that for BOD<sub>5</sub> and TSS, but not less than annually. The department may reduce the frequency of monitoring if the monitoring data is sufficient for water quality planning purposes. *[except those existing discharges with design flows of less than twenty-two thousand five hundred (22,500) gpd permitted prior to November 30, 1999, unless the design flow is increased.]***

(4) Effluent Limitations for Losing Streams.

(A) *[Discharges to losing streams shall be permitted only after other alternatives including land application,]* **Prior to discharging to a losing stream, alternatives such as *[discharge]* relocating the discharge** to a gaining stream, and connection to a regional wastewater treatment facility **are to be *[have been]* evaluated and determined to be unacceptable for environmental and/or economic reasons.**

(B) In addition to the requirements of section (9) of this rule, each permit for a discharge from a wastewater treatment facility to a losing stream, shall be written using the limitations contained in subsections (4)(B) and (C) of this rule in accordance with any applicable compliance schedule. Discharges from private wastewater treatment facilities which receive primarily domestic waste, industrial sources that treat influents containing significant amounts of organic loading, or POTWs permitted under this section shall undergo treatment sufficient to conform to the following limitations:

1. BOD<sub>5</sub> equal to or less than a monthly average of ten milligrams per liter (10 mg/L) and a weekly average of fifteen milligrams per liter (15 mg/L);

2. TSS equal to or less than a monthly average of fifteen milligrams per liter (15 mg/L) and a weekly average of twenty milligrams per liter (20 mg/L);

3. pH shall be maintained in *[the range from six to nine (6–9) standard units]* **accordance with 40 CFR 133.102 “Secondary Treatment Regulation” October 16, 1984, as published by the Office of the Federal Resister, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.;**

4. All chlorinated effluent discharges to losing streams or within two (2) stream miles flow distance upstream of a losing stream shall also be dechlorinated prior to discharge;

*[5. Sludges removed in the treatment process shall not be discharged. Sludges shall be routinely removed from the wastewater treatment facility and disposed of or used in accordance with a sludge management practice approved by the department];*

*[6.]* **5.** When the wastewater treatment process causes nitrification which affects the BOD<sub>5</sub> reading, the permittee can petition the department to substitute carbonaceous BOD<sub>5</sub> in lieu of regular BOD<sub>5</sub> testing. If the department concurs that nitrification is occurring, the department will set a carbonaceous BOD<sub>5</sub> at five milligrams per liter (5 mg/L) less than the regular BOD<sub>5</sub> in the operating permit; and

*[7.]* **6.** For situations in which nitrates in a discharge can be reasonably expected to impact specific drinking water wells, the concentration of nitrates in the discharge shall be limited to an average monthly limit of ten milligrams per liter (10 mg/L) as nitrogen and a maximum daily limit of twenty milligrams per liter (20 mg/L). Applicants may conduct a study in the same manner as the Missouri Risk-Based Corrective Action Technical Guidance published in 2006 to determine if nitrate limits are necessary to protect groundwater. In such cases, applicants shall submit a study plan for approval prior to the study, and submit all findings as part of their permit application.

(C) Monitoring Requirements.

1. The department will develop a wastewater and sludge sampling program based on design flow that shall require, at a minimum, one (1) wastewater sample per year for each twenty-five thousand (25,000) gpd of effluent, or fraction thereof, except that—

*[A. Point sources that discharge less than five thousand (5,000) gpd may only be required to submit an annual report;]*

*[B.]* **A.** The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit; and

*[C.]* **B.** Sludge samples will be established in the permit.

2. *[Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).]*

3. Sample types **will** *[shall]* be as follows:

A. Samples collected from lagoons and recirculating **media** *[sand]* filters may be grab samples;

B. Samples collected from mechanical plants **will** *[shall]* be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

C. Sludge samples **will** *[shall]* be a grab sample unless otherwise specified in the operating permit.



4. The monitoring frequency and sample types stated in paragraphs (4)(C)1. through 3. of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

(5) Effluent Limitations for Metropolitan No-Discharge Streams.

(A) Discharge to metropolitan no-discharge streams is prohibited, except as specifically permitted under the Water Quality Standards 10 CSR 20-7.031 and noncontaminated storm water flows.

(B) Monitoring Requirements.

1. The department will develop a wastewater and sludge sampling program based on design flow that shall require, at a minimum, one (1) wastewater sample per year for each twenty-five thousand (25,000) gpd of effluent, or fraction thereof, except that—

*[A. Point sources that discharge less than five thousand (5,000) gpd may only be required to submit an annual report];*

*[B.]A. [Point sources that discharge more than one point three (1.3) mgd will be required, at a minimum, to collect fifty-two (52) wastewater samples per year.]* The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit; and

*[C.]B. Sludge sampling will be established in the permit.*

*[2. Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).]*

3. Sample types **will** *[shall]* be as follows:

A. Samples collected from lagoons may be grab samples;

B. Samples collected from mechanical plants **will** *[shall]* be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

C. Sludge samples **will** *[shall]* be a grab sample unless otherwise specified in the operating permit.

4. The monitoring frequency and sample types stated in paragraphs (5)(B)1. through 3. of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

(6) Effluent Limitations for Special Streams.

(A) Limits for Outstanding National Resource Waters as listed in Table D of 10 CSR 20-7.031 and Drainages Thereto.

1. In addition to the requirements of section (9) of this rule, the following limitations represent the maximum amount of pollutants which may be discharged from any point source, water contaminant source, or wastewater treatment facility to waters included in this section.

2. Discharges from wastewater treatment facilities, which receive primarily domestic waste, or from POTWs are limited as follows:

A. New releases from any source are prohibited;

B. Discharges from sources that existed before June 29, 1974, or if additional stream segments are placed in this section, discharges that were permitted at the time of the designation will be allowed.

3. Industrial, agricultural, and other non-domestic contaminant sources, point sources, or wastewater treatment facilities which are not included under subparagraph (6)(A)2.B. of this rule shall not be allowed to discharge. *[Agrichemical facilities shall be designed and constructed so that all bulk liquid pesticide nonmobile storage containers and all bulk liquid fertilizer nonmobile storage containers are located within a secondary containment facility. Dry bulk pesticides and dry bulk fertilizers shall be stored in a building so that they are protected from the weather. The floors of the buildings shall be constructed of an approved design and material(s). At an agrichemical facility, all transferring, loading, unloading, mixing, and repackaging of bulk agrichemicals shall be conducted in an operational area. All precipitation collected in the operational containment area or secondary containment area as well as process generated wastewater shall be stored and disposed of in a no-discharge manner.]*

4. Monitoring requirements.

A. The department will develop a wastewater and sludge sampling program based on design flow that will require, at a minimum, one (1) wastewater sample per year for each twenty-five thousand (25,000) gpd of effluent, or fraction thereof, except that—

*[(I) Point sources that discharge less than five thousand (5,000) gpd may only be required to submit an annual report;]*

*[(II)] (I) [Point sources that discharge more than one point three (1.3) mgd will be required at a minimum to collect fifty-two (52) wastewater samples per year.]* The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit;

*[(III)] (II) Sludge sampling will be established in the permit.*

*[B. Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).]*

C. Sample types **will** *[shall]* be as follows:

(I) Samples collected from lagoons may be grab samples;

(II) Samples collected from mechanical plants **will** *[shall]* be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

(III) Sludge samples **will** *[shall]* be a grab sample unless otherwise specified in the operating permit.

D. The monitoring frequency and sample types stated in subparagraphs (6)(A)4.A. through C. of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

(B) Limits for Outstanding State Resource Waters as listed in Table E of 10 CSR 20-7.031.

1. Discharges shall not cause the current water quality in the streams to be lowered.

2. Discharges will be permitted as long as the requirements of paragraph (6)(B)1. of this rule are met and the limitations in section (8) of this rule are not exceeded.

(7) Effluent Limitations for Subsurface Waters.

(A) No person shall release any water into aquifers, store or dispose of water in a way which causes or permits it to enter aquifers either directly or indirectly unless it meets the requirements of section (9) of this rule and it meets the appropriate groundwater protection criteria set in 10 CSR 20-7.031, Table A at a point ten feet (10') under the release point, or other compliance point based on site specific considerations, except as provided in subsections (7)(D) *[(E) and (F)]* of this rule. The permit writer shall review the complete application and other data to determine which parameter to include in the permit.

(B) No wastewater shall be introduced into sinkholes, caves, fissures, or other openings in the ground which do or are reasonably certain to drain into aquifers except as provided in section (4) of this rule.

(C) All abandoned wells and test holes shall be properly plugged or sealed to prevent pollution of subsurface waters, as per the requirements of the department.

*[(D) Where any wastewater treatment facility or any water contaminant source or point source incorporates the use of land treatment systems which allows or can reasonably be expected to allow wastewater effluents to reach the aquifer. Compliance with subsection (7)(A) of this rule shall be determined by a site-specific monitoring plan.]*

**(D) [(E)]** The effluent limitations specified in subsection (7)(A) of this rule shall not apply to facilities designed and constructed to meet department design criteria provided these designs have been reviewed and approved by the department. The department has the right to require monitoring, reporting, public notice, and other information as deemed appropriate. This exemption may be revoked by the department should any monitoring indicate an adverse effect on a beneficial water use or if the numeric criteria in the Water Quality Standards are being exceeded.

**(E) [(F)]** Any person not included in subsection (7)(E) of this rule who releases, stores, or disposes of water in a manner which results in releases of water to an aquifer having concentrations in excess of one (1) or more parameter limitations provided in subsection (7)(A) of this rule may be allowed to resample for purposes of verification of the excess. At their discretion, persons may demonstrate, at the direction of the department, that the impact on the water quality in the aquifer is negligible on the beneficial uses. The demonstration shall consider, at a minimum, the following factors:

1. Site geology;
2. Site geohydrology;
3. Existing and potential water uses;
4. Existing surface water and groundwater quality;
5. Characteristics of wastes or wastewater contained in facilities; and
6. Other items as may be required by the department to assess the proposal.

A. Demonstrations conducted under 10 CSR 25-18.010 shall be reviewed by the department in accordance with such rules. If the demonstrations show that the impact on groundwater quality will not result in an unreasonable risk to human health or the environment, alternate effluent limitations will be established by the department.

B. All other demonstrations shall be reviewed by the department. If the demonstrations show that the impact on groundwater quality will not result in an unreasonable risk to human health or the environment, alternate effluent limitation(s) will be proposed by the department and presented to the Clean Water Commission for approval. The Clean Water Commission has the right to require monitoring, reporting, public notice, and other information as deemed appropriate in the approval of the alternate limitation for one (1) or more parameters from subsection (7)(A) of this rule. The Clean Water Commission may hold a public hearing to secure public comment prior to final action on an alternate limitation.

C. No alternate limitations will be granted which would impair beneficial uses of the aquifer or threaten human health or the environment.

D. Alternate limitations may be revoked by the department should any monitoring indicate an adverse effect on a beneficial water use or violations of the alternate limitation.

(8) Effluent Limitations for All Waters, Except Those in Paragraphs (1)(B)1.–6. of This Rule. In addition to the requirements of section (9) of this rule, the following limitations represent the maximum amount of pollutants which may be discharged from any point source, water contaminant source, or wastewater treatment facility.

(A) Discharges from wastewater treatment facilities which receive primarily domestic waste or POTWs shall undergo treatment sufficient to conform to the following limitations:

1. BOD<sub>5</sub> and TSS equal to or less than a monthly average of thirty milligrams per liter (30 mg/L) and a weekly average of forty-five milligrams per liter (45 mg/L);

2. pH shall be maintained in *[the range from six to nine (6–9) standard units]* **accordance with 40 CFR 133.102 “Secondary Treatment Regulation” October 16, 1984, as published by the Office of the Federal Resister, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.;**

3. The limitations of paragraphs (8)(A)1. and 2. of this rule will be effective unless an alternate limitation will not cause violations of the Water Quality Standards or impairment of the uses in the standards. When an Antidegradation Review has been completed for new or expanded discharges, the following alternate limitation may also be allowed:

A. If the facility is a wastewater lagoon, the TSS shall be equal to or less than a monthly average of eighty milligrams per liter (80 mg/L) and a weekly average of one hundred twenty milligrams per liter (120 mg/L) and the pH shall be maintained above six (6.0) and the BOD<sub>5</sub> shall be equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L);

B. If the facility is a trickling filter plant, the BOD<sub>5</sub> and TSS shall be equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L);

C. Where the use of effluent limitations set forth in section (8) of this rule is known or expected to produce an effluent that will endanger water quality, the department will set specific effluent limitations for individual dischargers to protect the water quality of the receiving streams. When a waste load allocation study is conducted for a stream or stream segment, all permits for discharges in the study area shall be modified to reflect the limits established in the waste load allocation study in accordance with any applicable compliance schedule; and

D. The department may require more stringent limitations than authorized in paragraphs (8)(A)1. and 2. and subparagraphs (8)(A)3.A., B., and C. of this rule under the following conditions:

(I) If the facility is an existing facility, the department may set the BOD<sub>5</sub> and TSS limits based upon an analysis of the past performance, rounded up to the next five milligrams per liter (5 mg/L) range; and

(II) If the facility is a new facility the department may set the BOD<sub>5</sub> and TSS limits based upon the design capabilities of the plant considering geographical and climatic conditions:

(a) A design capability study has been conducted for new lagoon systems. The study reflects that the effluent limitations should be BOD<sub>5</sub> equal to or less than a monthly average of forty-five milligrams per liter (45 mg/L) and a weekly average of sixty-five milligrams per liter (65 mg/L) and TSS equal to or less than a monthly average of seventy milligrams per liter (70 mg/L) and a weekly average of one hundred ten milligrams per liter (110 mg/L); or

(b) A design capability study has been conducted for new trickling filter systems and the study reflects that the effluent limitations should be BOD<sub>5</sub> and TSS equal to or less than a monthly

average of forty milligrams per liter (40 mg/L) and a weekly average of sixty milligrams per liter (60 mg/L); **and**

*[4. Sludges removed in the treatment process shall not be discharged. Sludges shall be routinely removed from the wastewater treatment facility and disposed of or used in accordance with a sludge management practice approved by the department; and]*

*[5.]***4.** When the wastewater treatment process causes nitrification which affects the BOD<sub>5</sub> reading, the permittee can petition the department to substitute carbonaceous BOD<sub>5</sub> in lieu of regular BOD<sub>5</sub> testing. If the department concurs that nitrification is occurring, the department will set a carbonaceous BOD<sub>5</sub> at five milligrams per liter (5 mg/L) less than the regular BOD<sub>5</sub> in the operating permit.

**(B) Monitoring Requirements.**

1. The department will develop a wastewater and sludge sampling program based on design flow that will require, at a minimum, one (1) wastewater sample per year for each fifty thousand (50,000) gpd of effluent, or fraction thereof, except that—

*[A. Point sources that discharge less than twenty-five thousand (25,000) gpd may only be required to submit an annual report;]*

*[B.]* **A.** The department may establish less frequent sampling requirements for point sources that produce an effluent that does not exhibit high variability and consistently complies with the applicable effluent limit; and

*[C.]* **B.** Sludge sampling will be established in the permit.

*[2. Sampling frequency shall be representative of the discharge during the period the sampling covers (daily, weekly, monthly, seasonally, etc.).]*

*[3.]* **2.** Sample types **will** *[shall]* be as follows:

A. Samples collected from lagoons may be grab samples;

B. Samples collected from mechanical plants **will** *[shall]* be twenty-four (24)-hour composite samples, unless otherwise specified in the operating permit; and

C. Sludge samples **will** *[shall]* be a grab sample unless otherwise specified in the operating permit.

*[4.]* **3.** The monitoring frequency and sample types stated in paragraphs (8)(B)1. through 3. of this rule are minimum requirements. The permit writer shall establish monitoring frequencies and sampling types **that are both representative of the discharge and necessary** to fulfill the site-specific informational needs of the department.

**(9) General Conditions.**

**(A) Establishing Effluent Limitations.** Unless a formal variance from water quality standards have been approved by the Clean Water Commission and the U.S. Environmental Protection Agency, operating permits **issued** *[as required]* under 10 CSR 20-6.010(5) shall include, if applicable, the most protective limits set forth as follows:

1. Technology-based effluent limits and standards based on specific requirements under sections (2) through (8) of this rule;

2. Water quality-based effluent limits based on a waste load allocation in accordance with federal regulations (40 CFR 122.44(d)(1)), which would address pollutants that have a reasonable potential to cause or contribute to an excursion above Water Quality Standards established in 10 CSR 20-7.031.

A. Local effluent and receiving water data may be used to develop site specific effluent limits provided the department determines that this data is representative and 10 CSR 7.031 provides for their development;

B. Water quality-based effluent limitations incorporating mixing zones and zones of initial dilution as provided for in 10 CSR 20-7.031(5)(A)4.B. may be based on stream flows other than critical low-flow conditions, if the following conditions are met:

(I) The limits are protective of critical low-flow conditions, as well as higher flow conditions; and

(II) The permit shall require in-stream flow measurements and methods to determine compliance;

3. Effluent limit guidelines or standards that have been federally promulgated under Sections 301, 304, 306, 307, 318, and 405 of the Clean Water Act and case-by-case determinations of technology-based effluent limitations under section 402(a)(1) of the Clean Water Act;

4. Effluent limits prescribed for pollutants under a TMDL, *as required under Section 303(d)(1)(C) of the Clean Water Act,* necessary to achieve water quality standards, including permit limits in lieu of a TMDL. TMDL waste load allocations shall be placed in permits at renewal, and in subsequent renewals as needed. Permits may include schedules of compliance and, if developed, follow TMDL implementation plans or other flexibilities so long as they are allowed by federal regulation. The department may reopen existing permits to implement TMDL requirements;

5. Effluent limits that are developed through the antidegradation review process, provided there is reasonable potential to exceed these limits;

*[6. Effluent limits prescribed for stormwater discharges as required under 10 CSR 20-6.200 Storm Water Regulations];* and

*[7.]* **6.** Effluent Limits that are required as a result of legal agreements between dischargers and the department or the Clean Water Commission, or as otherwise required or allowed by law.

(B) Bacteria and Statewide Nutrient Limits. Operating Permits as required under 10 CSR 20-6.010(5) shall include, if applicable, the following bacteria and nutrient limits:

1. Bacteria. The following water quality *Escherichia coli* (*E. coli*) discharge limits apply:

A. Discharges to stream segments designated in Table H of 10 CSR 20-7.031 for whole body contact recreation and secondary contact recreation shall not exceed the water quality *E. coli* counts established in subsection (5)(C) of 10 CSR 20-7.031;

B. Discharges to lakes designated as whole body contact recreational or secondary contact recreational in Table G of 10 CSR 20-7.031 shall not exceed the water quality *E. coli* counts established in subsection (5)(C) of 10 CSR 20-7.031;

*[C. Discharges to privately-owned lakes classified as L3, as defined in subsection (1)(F) of 10 CSR 20-7.031, that are designated as whole body contact recreational or secondary contact recreational in Table G of 10 CSR 20-7.031 shall not exceed the water quality E. coli counts established in subsection (5)(C) of 10 CSR 20-7.031. Discharges include releases into streams one-half (1/2) stream mile (.80 km) before the stream enters the lake as measured to its conservation pool;]*

*[D.]* **C.** Discharges located within two (2) miles upstream of stream segments or lakes designated for whole body contact recreational or secondary contact recreational in Tables H and G of 10 CSR 20-7.031 shall not exceed the water quality *E. coli* counts established in subsection (5)(C) of 10 CSR 20-7.031 for the receiving stream segment or lake designated for those uses;

[E.] **D.** Short-term *E. coli* limits. During the recreation season, discharges to waters designated for whole body contact “A” as defined in part (1)(C)2.A.(I) of 10 CSR 20-7.031 shall be limited to six hundred thirty (630) colony forming units per one hundred (100) milliliters (ml) expressed as a weekly geometric mean for POTWs and as a daily maximum for non-POTWs. During the recreation season, discharges to waters designated for whole body contact “B” as defined in part (1)(C)2.A.(II) of 10 CSR 20-7.031 shall be limited to one thousand thirty (1,030) colony forming units per one hundred (100) ml expressed as a weekly geometric mean for POTWs and as a daily maximum for non-POTWs. During the recreation season, discharges to waters designated for secondary contact recreational as defined in paragraph (1)(C)2.B. [9.] of 10 CSR 20-7.031 shall be limited to one thousand one hundred thirty-four (1,134) colony forming units per one hundred (100) ml expressed as a weekly geometric mean for POTWs and as a daily maximum for non-POTWs. For the entire calendar year, discharges to waters that are defined by paragraph (1)(B)3. of this rule as losing streams shall be limited to one hundred twenty-six (126) colony forming units per one hundred (100) ml expressed as a daily maximum;

[F.] **E.** As an alternative to the limits prescribed in subparagraphs (9)(B)1.A. through E. of this rule, the department may allow permit applicants to conduct a study to develop *E. coli* limits that reflect pathogen decay. Prior to conducting this study applicants shall submit a quality assurance project plan for approval prior to the study, and submit all findings as part of their permit application; and

[G.] **F.** Notwithstanding the bacteria limits prescribed in paragraphs (9)(1)A. through F. of this rule, discharges to losing streams shall be considered in compliance so long as no more than ten (10) percent of samples exceed one hundred twenty-six (126) colony forming units per one hundred (100) ml daily maximum;

2. Nutrients. Reserved for Statewide Nutrient Effluent Limits.

(C) Schedules of Compliance.

1. Compliance with new or revised National Pollutant Discharge Elimination System (NPDES) or Missouri operating permit limitations shall be achieved and in accordance with the federal regulation 40 CFR Part 122.47, “Schedules of Compliance,” May 15, 2000, 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.

*[2. If any permit allows a time for achieving final compliance from the date of permit issuance, the schedule of compliance in the permit shall set forth interim requirements and the dates for their achievement. The time between interim dates shall not exceed one (1) year, except that in the case of a schedule for compliance with standards for sewage sludge use and disposal, the time between interim dates shall not exceed six (6) months.]*

*3. Within fourteen (14) days following each interim date and the final date of compliance, the permittee shall provide the department with written notice of the permittee’s compliance or noncompliance with the interim or final requirement for the dates.]*

[4.] 2. A compliance schedule may be modified **in accordance with the federal regulation 40 CFR 122.62 “Modification or revocation and reissuance of permits,” November 20, 2008, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.** *[if the department determines good cause exists 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 reasonable remedy. Applicants may request a modification by providing appropriate justification. In no case shall the compliance schedule be modified to extend beyond an applicable statutory deadline]*

(D) Monitoring, Analysis, and Reporting.

1. All construction and operating permit holders shall submit reports at intervals established by the permit or at any other reasonable intervals required by the department. The monitoring and analytical schedule shall be as established by the department in the operating permit.

2. The analytical and sampling methods used must conform to **federal regulation 40 CFR Part 136.3 “Identification of test procedures,” August 28, 2017, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408 which is hereby incorporated by reference and does not include later amendments or additions.** *[the following reference methods unless alternates are approved by the department:]*

*[A. Standard Methods for the Examination of Waters and Wastewaters (14, 15, 16, 17, 18, 19, 20, and 21st Edition), published by the Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314;*

*B. Water Testing Standards, Vol. 11.01 and 11.02, published by American Society for Testing and Materials, West Conshohocken, PA 19428;*

*C. Methods for Chemical Analysis of Water and Wastes (EPA- 600/4-79-020), published by the Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, OH 54202; and*

*D. NPDES Compliance Sampling Inspection Manual, (EPA-305-X-04-001), published by Environmental Protection Agency, Office of Enforcement and Compliance Assurance 1200 Pennsylvania Avenue, N.W., Washington, DC 20460 (July 2004).]*

**3. Approval of alternative test procedures shall follow the criteria set forth in federal regulation 40 CFR 136.4 “Application for and approval of alternate test procedures for nationwide use,” August 28, 2017, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408 or federal regulation 40 CFR 136.5 “Approval of alternate test procedures for limited use,” August 28, 2017, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408, which are incorporated by reference and do not include later amendments or additions.**

[3.]4. Sampling and analysis by the department to determine violations of this regulation will be conducted in accordance with the methods listed in paragraph (9)(D)2. of this rule or any other approved by the department. Violations may be also determined by review of the permittee’s self-monitoring reports.

[4.]5.If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in the permit, the permittee shall provide the department with the following information, with the next discharge monitoring report as required under subsection (9)(D) of this rule:

A. A description of the discharge and cause of noncompliance;



B. The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and

C. The steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

[5.] 6. In the case of any discharge subject to any applicable toxic pollutant effluent standard under Section 307(a) of the federal Clean Water Act, the information required by paragraph (9)(D)4. of this rule regarding a violation of this standard shall be provided within twenty-four (24) hours from the time the owner or operator of the water contaminant source, point source, or wastewater treatment facility becomes aware of the violation or potential violation. This information may be provided via an electronic web-based system developed by the department, provided it is available. If this information is provided orally, a written submission covering these points shall be provided within five (5) working days of the time the owner or operator of the water contaminant source, point source, or wastewater treatment facility becomes aware of the violation.

[6.] 7. Bacteria Monitoring for Disinfection.

A. For systems that have a design capacity of greater than one hundred thousand (100,000) gpd, a minimum of one (1) sample shall be collected for *E. coli* analysis each calendar week during the recreational season from April 1 through October 31. Compliance with the *E. coli* water quality standard established in subsection (5)(C) of 10 CSR 20-7.031 shall be determined each calendar month by calculating the geometric mean of all of the samples collected each calendar month. Compliance with the short-term *E. coli* limits established in subparagraph (9)(B)1.E. of this rule shall also be determined.

B. For systems that discharge to stream segments that are defined by paragraph (1)(B)3. as losing streams and have a design capacity of greater than one hundred thousand (100,000) gpd, a minimum of one (1) sample shall be collected for *E. coli* analysis each calendar week all year. Compliance with the *E. coli* water quality standard established in subsection (5)(C) of 10 CSR 20-7.031 and with the short term *E. coli* limits established in subparagraph (9)(B)1.E. of this rule shall also be determined.

C. For systems that have a design capacity of one hundred thousand (100,000) gpd or less, the sampling frequency for *E. coli* analysis shall be in accordance with the wastewater and sludge sampling program based on the design flow which is dependent upon the receiving water category as listed in subsection (1)(B) of this rule. Compliance with the *E. coli* water quality standard established in subsection (5)(C) of 10 CSR 20-7.031 shall be determined each calendar month by calculating the geometric mean of all of the samples collected each calendar month. Compliance with the short-term *E. coli* limits established in subparagraph (9)(B)1.E. of this rule shall also be determined.

[7.] **8. Statewide Monitoring for Nutrients.** Point sources that have the design capacity of greater than one hundred thousand (100,000) gpd that typically discharge nitrogen and phosphorus shall collect and analyze **influent and effluent samples for total phosphorus, ammonia, total kjeldahl nitrogen and nitrate plus nitrite utilizing methods outlined in (D)2. of this section using the following frequencies:** *[a minimum of one (1) effluent sample each calendar quarter for one (1) permit cycle or up to (5) five years if the first permit term is less than five (5) years. The samples shall be analyzed for total nitrogen and total phosphorus using EPA approved test methods. This provision shall not limit the department from imposing ongoing or more frequent monitoring in permits that impose effluent limits for total nitrogen or total phosphorus or in situations in which monitoring is appropriate to ensure compliance with water quality standards. The quarterly monitoring frequency for total phosphorus does not apply to dischargers that are subject to the specific lake limits and monitoring requirement specified under subsections (3)(E) and (F) of this rule.]*

**A. Quarterly for facilities with design capacities greater than one hundred thousand (100,000) gpd and less than one million (1,000,000) gpd per day for a period up to five (5) years. The department may require additional monitoring to ascertain a discharge's nutrient contribution and the efficacy of the treatment technology as it pertains to nutrient removal.**

**B. Monthly for facilities with design capacities greater than or equal to one million (1,000,000) gpd for a period up to five (5) years. The department may require additional monitoring to ascertain a discharge's nutrient contribution and the efficacy of the treatment technology as it pertains to nutrient removal.**

**C. The department may impose ongoing or more frequent monitoring in permits that impose effluent limits for total nitrogen or total phosphorus or in situations in which monitoring is appropriate to ensure compliance with water quality standards or specific lake limits specified under subsection (3)(E) and (F) of this rule.**

(E) Dilution Water. Dilution of treated wastewater with cooling water or other less contaminated water to lower the effluent concentration to limits required by an effluent regulation of the Clean Water Law shall not be an acceptable means of treatment.

(F) Compliance with New Source Performance Standards.

1. Except as provided in paragraph (9)(F)2. of this rule, any new water contaminant source, point source, or wastewater treatment facility on which construction commenced after October 18, 1972, or any new source, which meets the applicable promulgated new source performance standards before the commencement of discharge, shall not be subject to any more stringent new source performance standards or to any more stringent technology-based standards under subsection 301(b)(2) of the federal Clean Water Act for the shortest of the following periods:

A. Ten (10) years from the date that construction is completed;

B. Ten (10) years from the date the source begins to discharge process or other nonconstruction related wastewater; or

C. The period of depreciation or amortization of the facility for the purposes of section 167 or 169 (or both) of the *Internal Revenue Code* of 1954.

2. The protection from more stringent standards of performance afforded by paragraph (9)(F)1. of this rule does not apply to—

A. Additional or more stringent permit conditions which are not technology based, for example, conditions based on water quality standards or effluent standards or prohibitions under Section 307(a) of the federal Clean Water Act; and

B. Additional permit conditions controlling pollutants listed as toxic under Section 307(a) of the federal Clean Water Act or as hazardous substances under Section 311 of the federal Clean Water Act and which are not controlled by new source performance standards. This exclusion includes permit conditions controlling pollutants other than those identified as hazardous where control of those other pollutants has been specifically identified as the method to control the hazardous pollutant.

(G) Bypass. Bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. Blending is the practice of diverting wet-weather flows around any treatment unit and recombining those flows within the treatment facility, while providing primary and secondary or biological treatment up to the available capacity, consistent with all applicable effluent limits and conditions. **Stipulations regarding bypass allowances, prohibitions and reporting requirements shall comply with federal regulations 40 CFR 122.41 “Conditions applicable to all permits (applicable to state programs, See §123.25), October 22, 2015, as published by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408, which are incorporated by reference and do not include later amendments or additions.**

*[1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (9)(G)3. and 4. of this rule.*

*2. Notice.*

*A. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the department, if possible at least ten (10) days before the date of the bypass.*

*B. Unanticipated bypass. The permittee shall notify the department by telephone within twenty-four (24) hours and follow with a written report within five (5) days from the time the permittee becomes aware of the circumstances of all bypasses or shutdowns that result in a violation of permit limits or conditions and which may endanger human health or the environment. The twenty-four (24)-hour and five (5) day reports may be provided via an electronic web-based system developed by the department, provided it is available, or by facsimile machine. POTWs that bypass during storm water inflow and infiltration events need only report on their discharge monitoring reports so long as the bypass does not result in violations of permit limits or conditions or endanger human health or the environment.*

*3. Prohibition of bypass. Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:*

*A. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;*

*B. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and*

*C. The permittee submitted notices as required under paragraph (9)(G)2. of this rule.*

*4. The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three (3) conditions listed in paragraph (9)(G)3. of this rule.]*

(H) Sludge facilities shall meet the applicable control technology for sewage sludge treatment, use, and disposal as published by the EPA in 40 CFR 503 and applicable state standards and limitations published in 10 CSR 20 and 10 CSR 80. Where there are no standards available or applicable, or when more stringent standards are appropriate to protect human health and the environment, the department shall set specific limitations in permits on a case-by-case basis using best professional judgment.

(I) Industrial, agricultural, and other nondomestic water contaminant sources, point sources, or wastewater treatment facilities which are not included under subsections (2)(B) or (8)(B) of this rule—

1. These facilities shall meet the applicable control technology currently effective as published by the EPA in 40 CFR 405–471. Where there are no standards available or applicable, the department shall set specific parameter limitations using best professional judgment. The pH shall be maintained in the range from six to nine (6–9) standard units, except that discharges of uncontaminated cooling water and water treatment plant effluent may exceed nine (9) standard units, but may not exceed ten and one-half (10.5) standard units, if it can be demonstrated that the pH will not exceed nine (9) standard units beyond the regulatory mixing zone; and

*[2. Agrichemical facilities shall be designed and constructed so that all bulk liquid pesticide nonmobile storage containers and all bulk liquid fertilizer nonmobile storage containers are located within a secondary containment facility. Dry bulk pesticides and dry bulk fertilizers shall be stored in a building so that they are protected from the weather. The floors of the buildings shall be constructed of an approved design and material(s). At an agrichemical facility, the following procedures shall be conducted in an operational area: all transferring, loading, unloading, mixing, and repackaging of bulk agrichemicals. All precipitation collected in the operational containment area or secondary containment area as well as process generated wastewater shall be stored and disposed of in a no-discharge manner or treated to meet the applicable control technology referenced in paragraph (9)(I)1. of this rule.]*

(J) Implementation Schedule for Protection of Whole Body Contact and Secondary Contact Recreation.

1. For discharges to water bodies designated for whole body contact and secondary contact recreational use prior to July 1, 2012, in 10 CSR 20-7.031, permits shall insure compliance with effluent limits to protect whole body contact and secondary contact recreation by no later than December 31, 2013, unless the permittee presents an evaluation sufficient to show that disinfection is not required to protect one (1) or both designated recreational uses, or a UAA demonstrates that one (1) or both designated recreational uses are not attainable in the classified waters receiving the effluent.

2. For discharges to water bodies designated for whole body contact and secondary contact recreational use after June 30, 2012, in 10 CSR 20-7.031, permits shall include schedules of compliance to meet bacteria limits in accordance with subsection (9)(C) of this rule.

(K) Temporary Suspension of Accountability for Bacteria Standards during Wet Weather. The accountability for bacteria standards may be temporarily suspended for specific discharges when conditions contained in paragraphs (9)(K)1. through 3. of this rule are met.

1. No existing recreational uses downstream of the discharge will be impacted during the period of suspension as confirmed through a water quality review for reasonable potential for downstream impacts and a UAA performed in accordance with the *Missouri Recreational Use Attainability Analysis Protocol* approved by the Missouri Clean Water Commission.

2. The period of suspension must be restricted to the defined wet weather event that corresponds to the period when recreational uses are unattainable. The period must be determinable at any time by the discharger and the general public (such as from stream depth or flow readings or other stream conditions on which publicly accessible records are kept).

3. The suspension shall be subject to public review and comment, Missouri Clean Water Commission approval, and EPA approval before becoming effective and shall be contained as a condition in a discharge permit or other written document developed through public participation.

(L) Whole Effluent Toxicity (WET) Test. The following are permit requirements for acute and chronic WET tests:

1. WET tests are required under 10 CSR 20-6.010(8)(A)4. and are to be conducted according to the methods prescribed in 40 CFR 136.3;

2. Test Types.

A. Acute WET tests shall be a multiple dilution series, static, non-renewal test to determine the degree at which acute forty-eight to ninety-six hour (48–96 hour) exposure to the effluent is acutely toxic to aquatic life expressed in species survival.

B. Chronic WET test shall be a multiple dilution series, static, renewal test to determine the degree at which chronic (sub lethal) exposure to the effluent is toxic to aquatic life or affects an alternative endpoint such as species reproduction and/or growth. Duration of chronic WET tests shall be established according to 40 CFR 136.3 Identification of test procedures, promulgated as of July 1, 2011, is hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions;

3. Applicability. WET test type and frequency shall be determined and expressed in permits by the department. At permit issuance or reissuance, the department will use valid and representative data to establish on a case-by-case basis, whether an existing discharge causes, has the reasonable potential to cause, or contributes to an excursion from the narrative water quality criteria. Where the department concludes that a discharge has the reasonable potential to contribute to an excursion from the narrative water quality criteria, as established in 10 CSR 20-7.031 the permit will include WET limits. If the department determines the facility has no reasonable potential to violate water quality standards, WET testing may be removed, or if more information is required, WET testing may be retained at a reduced frequency. WET test applicability for NPDES permits shall be fully addressed in the permit factsheet; and

4. Specifications.

A. A dilution series shall be established in the permit for WET test. The dilution series shall be a set of proportional effluent dilutions based on an Allowable Effluent Concentration (AEC).

B. All WET tests shall be performed with *Pimephales promelas* (a fathead minnow) and *Ceriodaphnia dubia* (a water flea), except facilities which discharge to receiving streams designated as cold-water fisheries. Facilities which discharge to receiving streams designated as cold-water fisheries may be required to perform WET tests using *Oncorhynchus mykiss* (rainbow trout) instead of the fathead minnow. Other test species for which test methods are provided in 40 CFR 136.3 may be approved by the department on a case-by-case basis provided the species are appropriately sensitive and representative. Alternative species (not included in 40 CFR 136.3) shall be approved in accordance with the procedures in 40 CFR 136.4. Application for alternate test procedures, promulgated as of July 1, 2011, is hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

C. A Toxic Unit (TU) water quality based limit shall be established in the permit for WET test where the department concludes that a discharge has the reasonable potential to cause or contribute to an excursion from the narrative water quality criteria as established in 10 CSR 20-7.031(4)(D). The TU limit shall be determined in accordance with 40 CFR 122.44(d)(1)(v) and utilizing the methods established in Technical Support Document For Water Quality-based Toxics Control (March 1991, EPA, EPA/505/2-90-001) and documented in the factsheet. Exceedance of a TU limit shall be a WET test failure.

D. Upon completion of a WET test the lab report and department form as referenced in the permit shall be submitted by the permittee to the department within the timeframe established by the permit.

(10) Control of Combined Sewer Overflows (CSOs). The permitting and control of CSOs shall conform to EPA's CSO Control Policy, EPA Number 830/B-94-001 (published by EPA April 19, 1994, at 59 Fed. Reg. 18688) as referenced by Section 402 (q) of the Clean Water Act, 33 USC 1342(q). The CSO Control Policy is hereby incorporated by reference, without any later amendments or additions. This document is available by writing to U.S. Environmental Protection Agency, Office of Water Resource Center, Mail Code RC-4100T, 1200 Pennsylvania Avenue NW, Washington, DC 20460 or upon request from the Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, PO Box 176, Jefferson City, MO 65102-0176. Effluent monitoring commitments for CSOs shall be addressed in the long term control plans required under EPA's CSO Control Policy.