RULES
OF THE
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER RESOURCES DIVISION

CHAPTER 0400-40-05
PERMITS, EFFLUENT LIMITATIONS AND STANDARDS

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0400-40-05-.01 PURPOSE.

A permit is designed to allow the holder thereof to conduct activities listed in T.C.A. § 69-3-108 only after strict compliance with conditions and applicable effluent limitations. T.C.A. § 69-3-108(a), (b) and (c) explicitly state when a permit is required, and what activities shall be unlawful without a permit.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.02 DEFINITIONS.

All terminology not specifically defined herein shall be defined in accordance with the Water Quality Control Act, T.C.A. §§ 69-3-101 et seq. When used in Rules 0400-40-05-.01 through .14, the following terms have the meanings given below unless otherwise specified:

(1) "Act" means the Water Quality Control Act (TWQCA), T.C.A. §§ 69-3-101 et seq.

(2) "Administrator" means the administrator of the United States Environmental Protection Agency, or an authorized representative.

(3) An "Agricultural stormwater discharge" refers to a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a CAFO where the manure, litter, or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in parts (10)(a)7. through 10. of Rule 0400-40-05-.14.

(4) "Ammonia (as N)" means ammonia reported as nitrogen.

(5) An "Animal Feeding Operation" (AFO) is a facility that (1) stables, confines and feeds or maintains animals (other than aquatic animals) for a total of 45 days or more in any 12-month period and (2) does not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season over any portion of the facility. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

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(Rule 0400-40-05-.02, continued)

(6) An "AFO overflow" means the discharge of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or storm water can be contained by the structure.

(7) An "AFO production area" includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas.

(a) The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways associated with barns or barnyards, and stables.

(b) 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. If an AFO stores manure in the field (i.e., manure or litter piled for more than several days before land application occurs), the field storage is considered to be a production area. Note that manure or litter stored uncovered for more than two weeks is not considered to be short-term or temporary storage, and is included in the definition of production area.

(c) The raw materials storage area includes but is not limited to feed silos, silage bunkers, and organic bedding materials.

(d) The waste containment area includes but is not limited to settling basins and areas within berms and diversions which separate uncontaminated storm water.

(e) The production area also includes any on-farm egg washing or egg processing facility, and any area used in the storage, handling, treatment, or on-farm disposal of mortalities.

(8) "Animal Waste Management System" means any system used for the collection, storage, treatment, handling, transport, distribution, land application, or disposal of agricultural wastes, animal waste/wastewater, waste product, and dead animals generated by an AFO that meets or exceeds USDA-NRCS technical standards and guidelines.

(9) "Area-wide waste treatment management plan" means a plan that has been approved by the administrator pursuant to § 208 (33 U.S.C. § 1288) of the CWA, Public Law 92-500.

(10) The term "BATEA" (or "BAT") means the best available technology economically achievable as defined by EPA regulations. Effluent limitations established by this designation shall be effective in accordance with the requirements of Section 301(B)(2)(A), Federal Water Pollution Control Act, PL 92-500.

(11) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (a) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (b) at appropriate frequencies and locations.

(12) "Board" means the Board of Water Quality, Oil and Gas.

(13) "BOD_5" means 5-day biochemical oxygen demand.

(14) The term "BPTCA" means the best practicable control technology currently available, as defined by EPA regulations.

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(Rule 0400-40-05-.02, continued)

(15) A "bypass" is defined as the intentional diversion of waste streams from any portion of a treatment facility.

(16) A "calendar day" is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

(17) "$CBOD_5$" means 5-day carbonaceous biochemical oxygen demand.

(18) A "closure plan" is a description of the steps taken after a permittable activity has ceased to prevent contamination of surface waters from the inactive site.

(19) "Commencement of construction" is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(20) "Commissioner" means the Commissioner of the Department of Environment and Conservation or the Commissioner's duly authorized representative and, in the event of the Commissioner's absence or a vacancy in the office of Commissioner, the Deputy Commissioner.

(21) A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case, less than 8 hours.

(22) A "concentrated animal feeding operation" (CAFO) is an AFO that either meets the large (Class I) CAFO size criteria of paragraph (2) of Rule 0400-40-05-.14, the medium (Class II) criteria of paragraph (3) of Rule 0400-40-05-.14, or has otherwise been designated as a CAFO by the Director.

(23) "Construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

(24) The "daily maximum amount" is a limitation on the total amount of any pollutant in the discharge by weight during any calendar day.

(25) The "daily maximum concentration" is a limitation on the average concentration, in units of mass per volume, of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

(26) The meaning of "degradation" shall be the same as defined in Rule 0400-40-03-.04.

(27) "Department" means the Department of Environment and Conservation.

(28) "Director" means the director of the Division of Water Resources.

(29) "Discharge" or "discharge of a pollutant" refers to the addition of pollutants to waters from a source.

(30) "Division" means the Division of Water Resources.

(31) A "dry weather overflow" is a type of sanitary sewer overflow and is defined as one day or any portion of a day in which unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall occurs and is not directly related to

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(Rule 0400-40-05-.02, continued)

a rainfall event. Discharges from more than one point within a 24-hour period shall be counted as separate overflows.

(32) "Effluent limitation" means any restriction, established by the Board or the Commissioner, on quantities, rates or concentrations of chemical, physical, biological, or other constituents which are discharged into waters or adjacent to waters.

(33) "Fecal coliform" means fecal coliform bacteria, an indicator of pathogenic organisms.

(34) The "geometric mean" of any set of values is the nth root of the product of the individual values where n is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero shall be considered to be one.

(35) A "grab sample" is a single influent or effluent sample collected at a particular time.

(36) "Hydrologic connection" means the interflow and exchange between surface impoundments or containment structures and groundwater or surface water through an underground corridor or pathway. In the context of this Chapter, the purpose of prevention/reduction of hydrologic connection is to prevent/ reduce groundwater flow contact resulting in the transfer of pollutants into groundwater.

(37) "IC_{25}" refers to the inhibition concentration in which at least a 25% reduction in reproduction and/or growth in test organisms occurs.

(38) "Industrial user" means those industries identified in the standard industrial classification manual, Bureau of the Budget, 1987, as amended and supplemented, under the category "Division D - Manufacturing" and such other classes of significant waste producers as the board or commissioner deems appropriate.

(39) "Industrial wastes" means any liquid, solid, or gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.

(40) The "instantaneous maximum concentration" is a limitation on the concentration, in units of mass per volume (where appropriate), of any pollutant contained in the wastewater discharge determined from a grab sample taken of the discharge at any point in time.

(41) The "instantaneous minimum concentration" is the minimum allowable concentration, in units of mass per volume (where appropriate), of a pollutant parameter contained in the wastewater discharge determined from a grab sample taken from the discharge at any point in time.

(42) "Land application area" means the land under the control of an AFO owner or operator to which manure, litter or process wastewater from the AFO production area is or may be applied.

(43) A "large CAFO" (Class I CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 0400-40-05-.14.1.

(44) "LC_{50}" refers to the concentration that causes at least 50% lethality of the test organisms.

(45) "Major facility" refers to a municipal or domestic wastewater treatment plant with a design capacity of 1 million gallons per day or greater; or any other facility or activity classified as such by the Commissioner.

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(Rule 0400-40-05-.02, continued)

(46) The term "manure" is defined to include manure, bedding, compost and raw materials or other materials comingled with manure or set aside for disposal.

(47) "Mature dairy cow" refers to a cow that has previously given birth to a calf.

(48) A "medium CAFO" (Class II CAFO) is an AFO that falls within the size threshold for the animals specified in column 3 of TABLE 0400-40-05-.14.1 and also meets the criteria of paragraph (3) of Rule 0400-40-05-.14.

(49) "Minor facility" refers to any facility or activity that is not a major facility.

(50) The "monthly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar month when the measurements were made.

(51) The "monthly average concentration", a limitation on the discharge concentration in units of mass per volume, of any pollutant, other than bacteria, is the arithmetic mean of all the composite or grab samples collected in a one calendar-month period.

(52) "Multi-year phosphorus application" means phosphorus applied to a field in excess of crop needs and/or crop removal rates when there is no soil test recommendation for phosphorus and the Tennessee Phosphorus Index indicates manure, litter or process wastewater should be applied at the crop phosphorus removal rate. Subsequent phosphorus application is prohibited until the applied phosphorus has been removed via harvest and/or crop removal or a subsequent soil test indicates phosphorus is required. Crop phosphorus removal rates are set by University of Tennessee Extension technical guidance documents for nutrient management.

(53) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the federal CWA. The term includes an "approved program."

(54) A "natural riparian buffer" is a permanent strip of natural vegetation adjacent to a stream that contains dense vegetation made up of grass, shrubs and trees. The purpose of a natural riparian buffer is to maintain existing water quality by minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.

(55) The term "new source" means any building, structure, facility, area or installation from which there is or may be a "discharge of pollutants," the construction of which commenced after the publication of state or federal regulations prescribing a standard of performance.

(56) "Nitrate (as N)" means nitrate reported as nitrogen.

(57) "Non-contact cooling water" in general practice, refers to cooling water that does not contact raw materials, materials being produced, finished product, by-products or process wastewater. For some industrial categories, other, more specialized definitions related to non-contact cooling water may also apply.

(58) "Nonpoint source pollution" occurs when precipitation moves over and through the ground, picks up and carries away pollutants and deposits them into waters of the state.

(59) The term "1-hour average maximum" is a limitation on the concentration in units of mass per volume, of a composite consisting of any three equal volume grab samples collected consecutively at 30 minute intervals.

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(Rule 0400-40-05-.02, continued)

(60) A "one week period" (or "calendar-week") is defined as the period from Sunday through Saturday. For reporting purposes, a calendar-week that contains a change of month shall be considered part of the latter month.

(61) "Owner or operator" means any person who owns, leases, operates, controls or supervises a source.

(62) A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

(63) "Permit" means an authorization, license, or equivalent control document issued by the Division of Water Resources which implements the requirements of the TWQCA. "Permit" includes an NPDES "general permit."

(64) "Permit action" refers to the issuance, reissuance, revocation, denial or modification of an individual permit.

(65) "Point source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

(66) "Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

(67) "Pollutant" means sewage, industrial wastes, or other wastes.

(68) "Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of the waters of this state including, but not limited to, changes in temperature, taste, color, turbidity, or odor of the waters that will:

(a) Result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;

(b) Result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;

(c) Render or will likely render the waters substantially less useful for domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or

(d) Leave or likely leave the waters in such condition as to violate any standards of water quality established by the board.

(69) "Process wastewater" for operations other than AFOs means 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, byproduct, or waste product.

(70) "Process wastewater" for AFOs means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

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(Rule 0400-40-05-.02, continued)

(71) A "rainfall event" is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event. Ten-year, 24-hour rainfall event, 25-year, 24-hour rainfall event, and 100-year, 24-hour rainfall event are mean precipitation events with a probable recurrence interval of once in 10 years, or 25 years, or 100 years, respectively, as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or state rainfall probability information developed from this source.

(72) A "rationale" (or "fact sheet") is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency's permit decision.

(73) A "sanitary sewer overflow (SSO)" is defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall.

(74) "Schedules of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, condition of a permit, other limitation, prohibition, standard, or regulation.

(75) "Setback" means a specified distance from surface waters or potential conduits to surface waters where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: open tile line intake structures, sinkholes, and wells.

(76) "Severe property damage" when used to consider the allowance of a bypass or SSO 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 or SSO. Severe property damage does not mean economic loss caused by delays in production.

(77) "Sewage" means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present.

(78) "Sewerage system" means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, pumped, treated, or disposed.

(79) "Source" means any activity, operation, construction, building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(80) "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the commissioner determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(81) "Stream" means a surface water that is not a wet weather conveyance.

(82) "Total coliform" means all coliform bacteria.

(83) "Total dissolved solids (TDS)" means nonfilterable residue.

(84) "Toxic effluent limitation" means an effluent limitation on those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or

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(Rule 0400-40-05-.02, continued)

indirectly by ingestion through food chains, will, on the basis of available information, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(85) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(86) "USDA-NRCS" means the Natural Resources Conservation Service, an agency within the U.S. Department of Agriculture.

(87) "Variance" means an authorization issued to a person by the Commissioner, which would allow that person to cause a water quality standard to be exceeded for a limited time period without changing the standard.

(88) "Vegetated buffer" means 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.

(89) The term, "washout" is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

(90) "Watercourse" means a man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.

(91) "Waters" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

(92) The term "water quality limited segment" means any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the federal CWA.

(93) The "weekly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar week when the measurements were made.

(94) The "weekly average concentration", a limitation on the discharge concentration in units of mass per volume of any pollutant, is the arithmetic mean of all the concentrations measured in a calendar week.

(95) "Wet weather conveyance" means, notwithstanding any other law or rule to the contrary, man-made or natural watercourses, including natural watercourses that have been modified by channelization:

(a) That flow only in direct response to precipitation runoff in their immediate locality;

(b) Whose channels are at all times above the groundwater table;

(c) That are not suitable for drinking water supplies; and

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(Rule 0400-40-05-.02, continued)

(d) In which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

(96) A "wet weather overflow" is a type of sanitary sewer overflow and defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall that is directly related to a specific rainfall event. Discharges occurring from multiple locations within a single rainfall event are considered separate, wet-weather overflows.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.03 EXCLUSIONS.

(1) The following discharges do not require NPDES permits:

(a) Any introduction of pollutants from non point-source agricultural and silvicultural activities, including storm water runoff from orchards, cultivated crops, pastures, range lands, and forest lands; and

(b) Return flows from irrigated agriculture.

(2) Discharges into a septic tank connected only to a subsurface drain field do not require a state issued permit under T.C.A. § 69-3-108.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.04 PROHIBITIONS.

(1) No permits shall be issued authorizing any of the following discharges:

(a) The discharge of any radiological, chemical, or biological warfare agent;

(b) The discharge of radioactive waste into waters (though this does not prohibit radioactivity from authorized discharges provided such discharge is in accordance with state water quality standards);

(c) Any discharge which the Secretary of the Army acting through the chief of engineers finds would substantially impair anchorage and navigation;

(d) Any discharge to which the regional administrator has objected in writing in a timely fashion according to Section 402(d)(2), federal Clean Water Act (CWA);

(e) Any discharge from a source with effluent limitations less stringent than those included in an approved area-wide waste treatment management plan;

(f) When the conditions of the permit do not provide for compliance with the applicable requirements of either the federal CWA, or the Tennessee Water Quality Control Act (TWQCA); or

(g) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.

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(Rule 0400-40-05-.04, continued)

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.05 PERMIT APPLICATION, ISSUANCE.

(1) Any person who plans to engage or is engaging in any of the activities outlined in T.C.A. § 69-3-108(b) or (c) shall make application in writing to the Commissioner for a permit, or for modification of an existing permit; except where a person discharges into a publicly owned sewerage system or into a septic tank connected only to a subsurface drain field.

(2) Applicants shall complete and submit standard application forms supplied by the Commissioner together with such engineering reports, plans and specifications as are required. The Commissioner may subsequently request additional reasonable information as required in order to make the permit decision. If an environmental impact statement is required by federal regulation, the Commissioner may require the applicant to pay for its preparation. Processing of an application shall not be completed until all requested information has been supplied. The applicant will be provided notice of completeness of the application and re-submitted material within 30 days of a determination that such material constitutes a complete application. This provision does not preclude the Commissioner from later requesting additional material that subsequent to the notice of completeness is determined to be necessary for permit processing.

(3) Completed applications for new source discharges or for substantial changes in the nature, volume or frequency of existing permitted discharges shall be submitted:

(a) For state permits, no later than 180 days in advance of the date on which the operation is to commence or change, unless permission for a later application date has been granted by the Commissioner. Persons proposing a new operation are encouraged to submit their applications well in advance of the 180-day requirement to avoid delay.

(b) For NPDES permits, no later than 180 days in advance of the date on which the discharge is to commence or change, unless permission for a later application date has been granted by the Commissioner. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 180-day requirement to avoid delay.

(4) All permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that the Commissioner may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date.

(5) For facilities eligible for coverage under any state-issued general permit, notices of intent shall be submitted in accordance with timeframes established in the applicable general permit.

(6) Applications shall be submitted in accordance with the following:

(a) For a corporation:

1. By a responsible corporate officer, i.e., a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation;

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(Rule 0400-40-05-.05, continued)

2. By a manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility to assure long term environmental compliance with environmental laws and regulations; or

3. By a person in a corporate position to which signatory authority has been delegated by a corporate officer.

(b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

(c) For a municipality, state, federal, or other public agency:

1. A principal executive officer (i.e., the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency); or

2. Ranking elected official.

(7) The Commissioner may agree with the regional administrator on the exchange of completed applications and other information.

(8) The Commissioner will not authorize construction related to any such application as described in paragraphs (1) through (6) of this rule until after the end of the public comment period as outlined in Rule 0400-40-05-.06.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.06 NOTICE AND PUBLIC PARTICIPATION.

(1) For an individual application for a new or expanded discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The sign shall contain provisions as specified by the Commissioner. The sign shall be of such size that is legible from the public road. Also, the sign shall be maintained for at least 30 days following submittal of the application to the division.

(2) Each completed application (or request for permit action) shall be evaluated and a tentative determination of whether to issue or deny a permit action shall be made. If a tentative determination is made to issue a permit, then a draft permit shall be prepared that includes proposed effluent limitations, a proposed schedule of compliance, including interim dates and requirements, and a brief description of any other proposed special conditions. A rationale, as defined in paragraph (3) of this rule, shall also be provided along with the draft permit. The Commissioner may attach other relevant information as necessary.

(3) For each application, the Commissioner shall prepare a rationale that includes or considers as appropriate:

(a) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

(b) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;

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(Rule 0400-40-05-.06, continued)

(c) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(d) The location of the discharge or activity described in the application;

(e) A quantitative and qualitative description of the discharge described in the application which includes at least the following:

1. The rate or frequency of the proposed discharge; if the discharge is continuous, the average and maximum daily flow in gallons per day or million gallons per day;

2. For thermal discharges subject to limitation, the average and maximum summer and winter temperature;

3. The average and maximum daily discharge in pounds per day and concentrations in units of mass per volume of any pollutants which are present in significant quantities or which are subject to limitations or prohibition under described provisions of T.C.A. §§ 69-3-101 et seq. or this rule; and

4. Other parameters for which control may be required by the Commissioner;

(f) Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions including a citation to the applicable effluent limitation guideline, performance standard, reasons why they are applicable or an explanation of how the alternate effluent limitations were developed;

(g) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable:

1. Technology-based limitations to control toxic pollutants;

2. Limitations on internal waste streams;

3. Limitations on indicator pollutants; or

4. Limitations set on a case-by-case basis;

(h) The tentative determination regarding the discharge;

(i) A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and effluent standards and limitations applied to the proposed discharge;

(j) A fuller description of the procedures for the formulation of final determinations than that given in the public notice including:

1. The beginning and ending dates of the 30-day comment period required by this rule;

2. The address where comments will be received;

3. Procedures for requesting a public hearing and the nature thereof; and

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(Rule 0400-40-05-.06, continued)

4. Any other procedures by which the public may participate in the formulation of the final determinations; and

(k) Name and telephone number of a person to contact for additional information;

(4) The Commissioner shall ensure that the public is notified that the following actions have occurred:

(a) A permit application has been tentatively denied;

(b) A draft permit has been prepared;

(c) A hearing has been scheduled; or

(d) An appeal has been granted.

(5) No public notice is required:

(a) When a request for permit modification, revocation and reissuance, or termination is denied based on the Commissioner's determination that the request was not justified (written notice of that denial shall be given to the requester and to the permittee); or

(b) For minor permit modifications which include corrections of typographical errors, requiring more frequent monitoring or reporting, changing an interim compliance date or allowing a change of ownership.

(6) Public notices may describe more than one permit or permit actions.

(7) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under this rule shall allow at least 30 days for public comment.

(8) Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit, and the two notices may be combined.)

(9) In order to inform interested and potentially interested persons of the proposed discharge/activity and of the tentative determinations regarding it, public notice shall be circulated within the geographical area of the proposed discharge by the following means:

(a) For new, major NPDES or general permits and public hearings, publishing in local daily or weekly newspapers and periodicals, or, if appropriate, in a daily newspaper of general circulation;

(b) For all permits, by mailing (either electronically and/or physically) a copy of the notice to the following persons:

1. The applicant (except general permits when there is no applicant);

2. Any other agency which the Director knows has issued or is required to issue other permits for the same facility or activity;

3. Federal and state agencies with jurisdiction over fish and wildlife resources and historic preservation;

4. Any affected states and Indian Tribes;

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(Rule 0400-40-05-.06, continued)

5. For NPDES only:

   (i) Any state agency responsible for plan development under CWA section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service;

   (ii) Any user identified in the permit application of a privately owned treatment works;

6. Persons on a mailing list developed by:

   (i) Including those who request in writing to be on the list;

   (ii) Soliciting persons for "area lists" from participants in past permit proceedings in that area;

   (iii) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press, newsletters, environmental bulletins, or state law journals; (The Commissioner may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Commissioner may delete from the list the name of any person who fails to respond to such a request.)

7. To any unit of local government having jurisdiction over the area where the facility is proposed to be located;

8. To each state agency having any authority under state law with respect to the construction or operation of such facility; and

(c) If determined necessary by the commissioner, any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases, website postings or any other forum or medium to elicit public participation.

(10) Public notice of applications shall include the following:

(a) Name, address, phone number of the Division;

(b) Name and location address of each applicant;

(c) Brief description of each applicant's activities or operations which result in the discharge described in the application or are adjacent to waters (e.g.: municipal waste treatment plant, steel manufacturing, drainage from mining activities);

(d) Name of waterway to which each discharge is made or to which each activity is adjacent and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

(e) A statement of the tentative determination to issue or deny a permit for the discharge described in the application;

(f) A brief description of the procedures for the formulation of final determinations, including the 30-day comment period required by this rule and any other means by which interested persons may influence or comment upon those determinations;

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(Rule 0400-40-05-.06, continued)

(g) Address and phone number of the premises at which interested persons may obtain further information, request a copy of the draft permit, request a copy of the rationale and inspect and copy forms and related documents; and

(h) Any other information that the Commissioner deems necessary.

(11) Interested persons may submit written comments on the tentative determinations within either 30 days of public notice or such greater period as the Commissioner allows. All written comments submitted shall be retained and considered in the final determination. The Commissioner shall give any state or interstate agencies whose waters will be affected a written explanation of the decision not to incorporate any written recommendation made by that state or agency.

(12) Interested persons may request in writing that the Commissioner hold a public hearing on any application. The request shall be filed within the period allowed for public comment and shall indicate the interest of the party filing it and the reasons why a hearing is warranted. If there is a significant public interest in having a hearing, the Commissioner shall hold one in the geographical area of the proposed discharge. Instances of doubt should be resolved in favor of holding the hearing.

(13) Special provisions regarding public notices for public hearings

(a) In addition to the public notice procedures of paragraph (9) of this rule, notice of public hearing shall be sent to all persons who received a copy of the notice or rationale for the application, any person who submitted comments on the draft permit action, all persons who requested the public hearing and any person who specifically requests a copy of the notice of hearing.

(b) Each notice of a public hearing shall include at least the following contents:

1. Name, address, and phone number of the Division;

2. Name and address of each applicant whose application will be considered at the hearing;

3. Name of waterway to which each discharge is made or to which each activity is adjacent and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

4. A brief reference to the public notice issued for each application, including identification number and date of issuance;

5. Information regarding the time and location for the hearing;

6. The purpose of the hearing;

7. A concise statement of the issues raised by the persons requesting the hearing;

8. Address and phone number of premises at which interested persons may obtain further information, request a copy of each draft permit, request a copy of each fact sheet, and inspect and copy forms and related documents;

9. A brief description of the nature of the hearing, including the rules and procedures to be followed; and

10. Any other information deemed necessary by the Commissioner.

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(Rule 0400-40-05-.06, continued)

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.07 TERMS AND CONDITIONS OF PERMITS.

(1) When a permit is granted it shall be subject to the provisions of T.C.A. §§ 69-3-101 et seq., these regulations, and any special terms or conditions the Commissioner determines are necessary to fulfill the purposes or enforce the provisions of that section.

(a) The terms and conditions of each permit shall insure compliance with applicable effluent limitations, including schedules of compliance, promulgated by the Board. If more stringent effluent limitations are necessary to implement applicable water quality standards, to avoid conflict with an approved area-wide waste treatment management plan, or to comply with other state or federal laws or regulations, then they should be imposed in the permit.

(b) If the permit is for the discharge of pollutants from a vessel or other floating craft, the permit shall insure compliance with any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

(c) In the application of effluent standards and limitations, water quality standards, and other legally applicable requirements, the Commissioner may, for each issued permit, specify average and maximum daily quantitative limitations for the level of pollutants in the authorized discharge in terms of weight (except pH, temperature, radiation, and any other pollutants not appropriately expressed by weight). The Commissioner may, in addition to the specifications of daily quantitative limitations by weight, specify daily average and daily maximum concentration limits for those pollutants subject to limitation. In addition, limitations expressed in other terminology may be required when necessary to protect water quality or to describe adequate operation of a treatment facility.

(2) The following standard conditions, where appropriate, apply to NPDES permits as well as state permits issued for the treatment, collection or disposal of wastewater:

(a) Duty to comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Duty to reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

(c) Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary

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(Rule 0400-40-05-.07, continued)

facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

(d) Permit actions.

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Causes for such permit action include but are not limited to the following:

1. Violation of any terms or conditions of the permit;

2. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(e) Property rights.

This permit does not convey property rights of any sort, or any exclusive privilege.

(f) Duty to provide information.

The permittee shall furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Commissioner upon request, copies of records required to be kept by this permit.

(g) Inspection and entry.

The permittee shall allow the Commissioner, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Commissioner.

(h) Monitoring, records and reporting.

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all

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(Rule 0400-40-05-.07, continued)

reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

1. Records of monitoring information shall include:

   (i) The date, exact place, and time of sampling or measurements;

   (ii) The individual(s) who performed the sampling or measurements;

   (iii) The date analyses were performed;

   (iv) The individual(s) who performed the analyses;

   (v) The laboratory where the analyses were performed;

   (vi) The analytical techniques or methods used; and

   (vii) The results of such analyses.

2. Monitoring results shall be conducted according to test procedures approved under 40 CFR part 136.

3. Regular reporting (at a frequency of not less than once per year) to assure that compliance is being achieved will normally be required of the discharger in any permit as indicated below:

   (i) Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Commissioner. Monitoring may also be reported via electronic reporting methods established by the Commissioner.

   (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or other reporting form specified by the Commissioner.

   (iii) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in the permit.

(i) Signatory requirement.

All applications, reports, or information submitted to the Commissioner shall be signed and certified by the persons identified in subparagraphs (6)(a) through (c) of Rule 0400-40-05-.05.

(j) Planned changes.

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility is considered a new source as defined in Rule 0400-40-05-.02;

(Rule 0400-40-05-.07, continued)

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged; or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices.

(k) Transfers.

Individual permits are not transferable to any person except after notice to the Commissioner, as specified below. The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee.

1. The permittee notifies the Commissioner of the proposed transfer at least 30 days in advance of the proposed transfer date.

2. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them.

3. The permittee shall provide the following information to the Commissioner in their formal notice of intent to transfer ownership:

(i) The permit number of the subject permit;

(ii) The effective date of the proposed transfer;

(iii) The name and address of the transferor;

(iv) The name and address of the transferee;

(v) The names of the responsible parties for both the transferor and transferee;

(vi) A statement that the transferee assumes responsibility for the subject permit;

(vii) A statement that the transferor relinquishes responsibility for the subject permit;

(viii) The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of subparagraph (i) of this paragraph; and

(ix) A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

(l) Bypass, as defined in Rule 0400-40-05-.02, is prohibited unless:

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

2. 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 backup equipment should have been installed in the exercise of reasonable

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(Rule 0400-40-05-.07, continued)

engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. For anticipated bypass, the permittee submits prior notice, if possible at least ten days before the date of the bypass; or

4. For unanticipated bypass, the permittee submits notice of an unanticipated bypass within 24 hours from the time that the permittee becomes aware of the bypass.

(m) A bypass that does not cause effluent limitations to be exceeded may be allowed only if the bypass is necessary for essential maintenance to assure efficient operation.

(n) Sanitary sewer overflows, including dry-weather overflows and wet weather overflows as defined in Rule 0400-40-05-.02 are prohibited.

(o) In the case of any noncompliance which could cause a threat to human health or the environment, the permittee shall report the noncompliance to the commissioner within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the noncompliance. The permittee shall provide the following information:

1. A description of, and the cause of the noncompliance;

2. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

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

(p) An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1 An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

3. The permittee submitted information required under "Reporting of Noncompliance" within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission shall be provided within 5 days); and

4. The permittee complied with any remedial measures required under "Adverse Impact."

(q) The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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(Rule 0400-40-05-.07, continued)

(r) The following notification requirements apply to industrial/mining dischargers and publicly owned treatment works.

1. Industrial/mining dischargers shall notify the Commissioner as soon as they know or have reason to believe:

(i) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR Part 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(I) 100 micrograms per liter (100 µg/l);

(II) 200 micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (1 mg/L) for antimony;

(III) 5 times the maximum concentration value reported for that pollutant(s) in the permit application; or

(IV) The level established by the Commissioner.

(ii) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(I) 500 micrograms per liter (500 µg/l);

(II) 1 milligram per liter (1 mg/L) for antimony;

(III) 10 times the maximum concentration value reported for that pollutant in the permit application; or

(IV) The level established by the Commissioner.

(s) If the permit is for a discharge from a publicly owned treatment works, the permittee shall provide notice to the Commissioner of the following:

1. Any new introduction of pollutants into such treatment works from a source which would be a new source subject to new source performance standards if such source were discharging pollutants;

2. Except as to such categories and classes of sources or discharges specified by the Commissioner, any new introduction of pollutants into such treatment works from a source which would be required to obtain a permit if such source were discharging pollutants; and,

3. Any substantial change in volume or character of pollutants being introduced into such treatment works by a source introducing pollutants into such works at the time of issuance of the permit; and

4. Such notice shall include information on (i) the quality and quantity of effluent to be introduced into such treatment works and (ii) any anticipated impact of such

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(Rule 0400-40-05-.07, continued)

change in the quantity or quality of effluent to be discharged from such publicly owned treatment works.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.08 EFFLUENT LIMITATIONS AND STANDARDS.

(1) Effluent standards and limitations shall be formulated in accordance with the following guidelines:

(a) For existing sources, other than publicly owned treatment works, effluent limitations shall be designed to require application of the best practicable control technology currently available and application of the best available technology economically achievable in accordance with requirements of Section 301(b)(2)(A), Federal Water Pollution Control Act, PL 92-500.

(b) For new sources technology-based effluent limitations shall require the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, which shall be new source performance standards, if available.

(c) Reserved.

(d) Toxic effluent limitations shall be based on consideration of the toxicity of the pollutant, its persistence, its degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

(e) Pretreatment standards shall be designed to prevent the introduction into publicly owned treatment works of those pollutants that may interfere with, pass through, or otherwise be incompatible with such works.

(f) All effluent limitations or standards shall meet or exceed any minimum standards promulgated by the administrator and currently effective under the Federal Water Pollution Control Act, P.L. 92-500 as amended or any subsequent applicable acts.

(g) All pollutants shall receive treatment or corrective action to insure compliance with effluent limitations established by the U.S. Environmental Protection Agency pursuant to Sections 301 and 302 and standards of performance for new sources pursuant to Section 306, effluent limitations and prohibitions and pretreatment standards pursuant to Section 307 of the Federal Water Pollution Control Act as amended, PL 92-500; also to insure compliance with any approved water quality standard, or avoid conflict with an approved area-wide waste treatment management plan prepared according to Section 208 of the federal law.

(h) Any schedules of compliance under this rule shall require compliance as soon as possible, but not later than the applicable statutory deadline under the federal law.

(i) Best management practices to control or abate the discharge of pollutants when numeric effluent limitations are infeasible and the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of TWQCA.

(j) 1. When a permit is renewed or reissued, effluent limitations, standards or conditions shall be at least as stringent as the effluent limitations, standards, or conditions in the previous permit unless:

(Rule 0400-40-05-.08, continued)

(i) The circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance;

(ii) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

(iii) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance;

(iv) Technical mistakes or mistaken interpretations of law were made in issuing the permit;

(v) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy; or

(vi) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved.

2. In no event may a permit with respect to which this rule applies be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified.

3. In no event may such a permit to discharge into waters be renewed, issued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard.

(k) All permit effluent limitations, standards, and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided for BMPs where limitations on effluent or internal waste streams are infeasible.

(l) In the case of POTWs or domestic wastewater treatment plants, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.

(m) For continuous discharges, all permit effluent limitations, standards, and prohibitions shall be expressed as maximum daily, weekly average (for POTWs only) and monthly average, unless impracticable.

(n) Non-continuous discharges shall be limited in terms of frequency, total mass, maximum rate of discharge, and mass or concentrations of specified pollutants, as appropriate.

(o) Any permit limitations, standards, or prohibitions based on production shall be based upon a reasonable measure of actual production.

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(Rule 0400-40-05-.08, continued)

1. For new sources or dischargers, actual production shall be estimated from projected production.

2. The time period of the measure of production shall correspond to the time period of the resulting permit limits. For example, monthly production levels shall be used to calculate monthly average permit limits.

(p) All permit effluent limitations, standard, or prohibitions for a metal shall be expressed as "total recoverable metal" unless a promulgated effluent guideline specifies otherwise.

(q) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required shall also be applied to the internal waste streams. Limits on internal waste streams will be imposed only when the rationale sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

(r) Instantaneous maximum concentration or similar limitations may be imposed in permits when:

1. Toxic or harmful parameters are present in such significant amounts or concentrations as to represent a threat to the possibility of maintaining receiving waters in accordance with established classifications; and

2 The discharge is characterized as irregular, such as high peak, short duration flow.

(s) Any discharge or activity authorized by a permit which is not a minor discharge or activity, or the regional administrator requests, in writing, be monitored, or contains a toxic pollutant for which an effluent standard has been established shall be monitored by the permittee for the following:

1. Flow (in million gallons per day); and

2. Any of the following pollutants:

(i) Pollutants (either directly or indirectly through the use of accepted correlation coefficients or equivalent measurements determined to be applicable to the discharge to which they are applied) which are subject to reduction or elimination under the terms and conditions of the permit;

(ii) Pollutants which the commissioner finds, on the basis of information available, could have a significant impact on the quality of waters;

(iii) Pollutants specified by the administrator, in regulations issued pursuant to the Federal Water Pollution Control Act, as subject to monitoring; and

(iv) Any pollutants, in addition to those identified in subparts (i) through (iii) of this part, which the regional administrator or the Commissioner request be monitored.

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(Rule 0400-40-05-.08, continued)

(t) If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the Commissioner shall revise or modify the permit in accordance with established procedure to include the toxic effluent standard or prohibition and so notify the permittee.

(2) All discharges authorized by the permit shall be consistent with the terms and conditions of the permit; facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants shall be reported by submission of a new application or, if such discharge does not violate effluent limitations specified in the permit, by submission to the Commissioner of notice of such new or increased discharges of pollutants; the discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by the permit shall constitute a violation of the terms and conditions of the permit.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014. Amendments filed May 24, 2018; effective August 22, 2018.*

0400-40-05-.09 TECHNOLOGY-BASED EFFLUENT LIMITATIONS.

(1) The U.S. Environmental Protection Agency has adopted effluent limitations and guidelines for existing sources and standards of performance for new sources pursuant to Section 301, 304, and 306 of the Federal Water Pollution Control Act as amended, PL 92-500. Permits for discharges will contain limitations and standards in accordance with these guidelines, when such are in effect unless more stringent limits are necessary to maintain designated uses. The Commissioner has authority pursuant to T.C.A. § 69-3-108 and Chapter 0400-40-03, to require wastewater treatment, independent of federal guidelines. The Commissioner may require a set of effluent limitations in each permit, which will indicate adequate operation or performance of treatment units used and which will appropriately limit those harmful parameters present in the wastewater. In the absence of federal guidelines, treatment units will be required to achieve the following as maximum effluent limitations when such parameters are present as a result of processes causing the contamination or discharges:

(a) Municipal and domestic wastewater treatment plants shall be limited by application of monthly average concentrations, weekly average concentrations, daily maximum amounts, and daily maximum concentrations of the 5 day, 20°C biochemical or carbonaceous biochemical oxygen demand (BOD_5 or $CBOD_5$) and suspended solids. In some cases, the daily maximum amount may be replaced by a minimum daily percent removal requirement. Limitations on chlorine residual may be required to prevent harmful amounts of chlorine discharge to the receiving waters. In addition, where harmful materials are acquired in a collection system, effluent limitations applicable to the treatment system will be required for such parameters.

1. Conventional Secondary Treatment Plants

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 or $CBOD_5$	30/25	40/35	45/40	85
TSS	30	40	45	85

The concentration of settleable solids shall not exceed 1.0 ml/l as measured by the standard one-hour Imhoff cone test.

(Rule 0400-40-05-.09, continued)

2. Domestic waste stabilization lagoons

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 /$CBOD_5$	45/40	50/45	65/60	65
TSS	100	110	120	n/a

3. Non-discharging systems

Facilities that treat municipal and/or domestic wastewater, but do not discharge into waters of the state, shall be limited in terms of BOD_5 and other pollutants such as NH_3-N, NO_3-N, and fecal coliform as necessary. Limits shall be set in such a way to assure efficient operation and protection of groundwater.

(b) Industrial discharges

1. For industrial discharges with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

2. For industrial discharges without applicable federal effluent guidelines, best professional judgment should be employed to determine appropriate effluent limitations and standards.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.10 WATER QUALITY-BASED PERMITTING.

(1) Effluent limitations on toxic substances will be required in accordance with the General Water Quality Criteria, Chapter 0400-40-03, using the LC_{50} and/or IC_{25} criteria and appropriate application factor for each toxic parameter.

(2) Appropriate limitations on organic related and other oxygen demanding parameters will be required in any permit to insure adequate dissolved oxygen in the state's waters in accordance with the General Water Quality Criteria, Chapter 0400-40-03.

(3) When a treatment process greater than BAT or conventional unit treatment processes is required by application of these rules, a set of effluent limitations will be required in any permit which will completely describe expected results of such treatment process.

(4) Effluent limitations may be required in any permits to insure compliance with the Antidegradation Statement, Rule 0400-40-03-.06.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.11 DURATION AND REISSUANCE OF PERMITS.

(1) Each issued permit shall have a fixed term not to exceed 5 years, which shall be stated in the permit.

(2) Any permittee who wishes to continue to discharge or operate after the expiration date of the permit shall apply for reissuance in accordance with the provisions of Rule 0400-40-05-.05. Timely receipt of a completed application for an NPDES or state operating permit is

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(Rule 0400-40-05-.11, continued)

necessary for permit continuance. However, the Commissioner, at his or her discretion, may accept alternative submittal materials.

(3) The Commissioner shall review the permit and other available information to insure:

(a) That the permittee is in compliance with or has substantially complied with all terms, conditions, requirements, and schedules of compliance of the expiring or expired permit;

(b) That the Commissioner has up-to-date information on the permittee's production levels, permittee's waste treatment practices, nature, contents, and frequency of permittee's discharge, pursuant to monitoring records and reports submitted to the Commissioner by the permittee; and

(c) That the discharge is consistent with applicable effluent standards and limitations, water quality standards, and other legally applicable requirements including any additions to, or revisions or modifications of such effluent standards and limitations, water quality standards, or other legally applicable requirements during the term of the permit.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.12 APPEALS.

(1) Permittees, applicants for permits, and aggrieved persons meeting the criteria of paragraph (3) of this rule who disagree with the denial, terms, or conditions of a permit are entitled to review of the Commissioner's decision by the Board of Water Quality, Oil and Gas (the Board) pursuant to T.C.A. § 69-3-105(i) and § 69-3-110.

(2) Permittees and applicants for permits shall specify what terms or conditions they are appealing in their petition. Only those terms or conditions specified in the petition will be considered subject to appeal. For permit modifications only those terms that were the subject of the modification may be appealed.

(3) In order to be entitled to a review of the Commissioner's permit decision, permittees, applicants, and aggrieved persons shall:

(a) Have submitted a written comment during the public comment period on the permit;

(b) Have engaged in other direct communication with the department regarding the proposed permit action during the comment period;

(c) Given testimony at a formal public hearing on the permit; or

(d) Attended a public hearing as evidenced by completion of a Department of Environment and Conservation Record of Attendance Card or other method as determined by the Department.

(4) The basis for the appeal for aggrieved persons may only include issues that:

(a) Were provided to the Commissioner in writing during the public comment period;

(b) Were provided in testimony at a formal public hearing on the permit; or

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(Rule 0400-40-05-.12, continued)

(c) Arise from any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

(5) All petitions for permit appeals shall be filed within 30 days after the date that public notice of the permit issuance, denial, or modification is given by way of distribution of the notice of determination to persons who meet the criteria of paragraph (3) of this rule.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.13 ADOPTION OF EPA-ISSUED PERMITS.

(1) The Commissioner may adopt and enforce permits that have been previously issued by the United States Environmental Protection Agency under the National Pollutant Discharge Elimination System established by Public Law 92-500. When such NPDES permit previously issued by the Environmental Protection Agency has been adopted by the State of Tennessee, any permit issued previously for the same discharge by the Commissioner shall become null and void. In any instance where the Commissioner has not adopted an existing NPDES permit and a discharge is not authorized by a Tennessee permit, the Commissioner may require the discharger to apply for a Tennessee permit and otherwise comply with Tennessee law. Permits previously issued pursuant to T.C.A. § 69-3-108 shall remain in full force and effect until replaced by an NPDES Permit transferred to the state or issued by the state.

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

0400-40-05-.14 ANIMAL FEEDING OPERATIONS.

(1) In addition to the applicable provisions of Rules 0400-40-05-.01 through 0400-40-05-.13, CAFOs are also subject to the provisions of this rule.

(2) AFOs meeting or exceeding the size thresholds in the second column of TABLE 0400-40-05-.14.1 are considered large (Class I) CAFOs.

(3) AFOs within the size thresholds given in the third column of TABLE 0400-40-05-.14.1 are considered medium (Class II) CAFOs if any of the following conditions are met:

(a) Pollutants are discharged into waters through a man-made ditch, flushing system, or other similar man-made device;

(b) Pollutants are discharged directly into waters which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation;

(c) The AFO is located adjacent to a waterbody that has been identified by the Department as being impaired for nutrients or pathogens;

(d) The AFO began operation on or after May 1, 1999; or

(e) The AFO expanded its operation so that it falls within the range given in the third column of TABLE 0400-40-05-.14.1 on or after July 21, 2004.

TABLE 0400-40-05-.14.1

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(Rule 0400-40-05-.14, continued)

Animal Type	Large (Class I) CAFO	Medium (Class II) CAFO
Mature dairy cows (milked or dry)	700+	200 – 699
Veal calves	1,000+	300 – 999
Cattle[1]	1,000+	300 – 999
Swine	2,500+ (≥ 55 lbs) 10,000 (< 55 lbs)	750 – 2,499 (≥ 55 lbs) 3,000 – 9,999 (< 55 lbs)
Chickens (liquid waste management)	30,000+ (laying hens or broilers)	9,000 – 29,999
Chickens (dry waste management[2])	125,000+ (non-layers) 82,000+ (layers)	37,500 – 124,999 (non-layers) 25,000 – 81,999 (layers)
Horses	500+	150 – 499
Sheep/lambs	10,000+	3,000 – 9,999
Turkeys	55,000+	16,500 – 54,999
Ducks (liquid waste management)	5,000+	1,500 – 4,999
Ducks (dry waste management[2])	30,000+	10,000 – 29,999

[1] Other than mature dairy cows or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs.

[2] Dry waste management refers to systems where continuously overflowing watering systems are not used and birds are raised in an enclosed building with earthen or concrete floors spread with layer of sawdust, wood shavings, rice hulls, or chopped straw.

(4) Other AFOs may be designated as CAFOs at the discretion of the Director. Factors to be considered in this determination include the AFO's size; the amount of waste reaching waters of the state; the location of the AFO; the means of waste conveyance to waters of the state; and the slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes into waters of the state. The Director shall conduct an on-site inspection prior to determining that an operation should be regulated under the CAFO permit program. AFOs below the threshold for a medium CAFO (shown in the third column in TABLE 0400-40-05-.14.1) may not be designated as a CAFO unless:

(a) Pollutants are discharged into waters through a man-made ditch, flushing system, or other similar man-made device; or

(b) Pollutants are discharged directly into waters which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(5) All AFOs defined as CAFOs shall seek permit coverage as follows:

(a) Large, medium, and designated CAFOs that discharge shall obtain an individual NPDES permit and the permit shall be in effect prior to any discharge.

(b) All other CAFOs shall obtain coverage under a state permit.

(6) All CAFOs shall submit application information in accordance with paragraph (2) of Rule 0400-40-05-.05.

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(Rule 0400-40-05-.14, continued)

(a) All CAFOs shall submit application information to the Tennessee Department of Agriculture, which will provide the Department with copies of the initial application and the approved application and nutrient management plan.

(b) In addition to the application requirements of paragraph (2) of Rule 0400-40-05-.05, CAFOs shall submit, at the time of application:

1. A closure/ rehabilitation plan for the waste system storage/treatment structure(s) that meets or exceeds USDA-NRCS technical standards and guidelines, and, at a minimum, addresses maintenance of the facility until proper closure is completed and includes a proposed schedule for closure not to exceed 360 days; and

2. A nutrient management plan as outlined in paragraph (10) of this rule.

(7) Reserved

(8) CAFOs shall comply with the permit reissuance requirements of paragraph (4) of Rule 0400-40-05-.05 and shall maintain permit coverage until such time as the CAFO demonstrates to the satisfaction of the Director that it no longer meets the definitions set forth in paragraphs (2), (3), or (4) of this rule.

(9) CAFOs shall have a nutrient management plan developed and approved and have all measures, structures, etc., in place to fully implement the plan upon the date of permit coverage.

(10) CAFO Nutrient Management Plan (NMP) Requirements

(a) Any permit issued to a CAFO shall include a requirement to develop, submit for state approval, implement, and keep on site a site-specific nutrient management plan that:

1. Includes best management practices and procedures necessary to implement applicable effluent limitations and standards;

2. Ensures adequate storage of manure, litter, and process wastewater including procedures to ensure proper operation and maintenance of the storage facilities;

3. Ensures proper management of mortalities (i.e., dead animals) so that they are not disposed of in a liquid manure, stormwater, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities as outlined in USDA-NRCS Conservation Practice Standard 316, October 2002 (or most recent) and/or the USDA-NRCS Animal Waste Handbook, and/or University of Tennessee Extension publications;

4. Ensures that clean water is diverted, as appropriate, from the production area;

5. Prevents direct contact of confined animals with waters of the state;

6. Ensures that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

7. Identifies 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 (these practices shall meet minimum standards

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(Rule 0400-40-05-.14, continued)

set in the USDA-NRCS Field Office Practice Standard and/or the USDA-NRCS Animal Waste Handbook), as follows:

(i) Manure, litter, and process wastewater shall be applied no closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters unless:

(I) The CAFO substitutes the 100-foot setback with a 35-foot wide vegetated buffer or by leaving in place a 60-foot natural riparian 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 to or better than the reductions that would be achieved by the 100-foot setback;

(ii) Manure, litter, and process wastewater shall be applied no closer than 100 feet for any potable well, public or private, or as recommended by the University of Tennessee Extension; and

(iii) For new CAFOs that are located adjacent to exceptional Tennessee waters and outstanding national resource waters (as identified by the Department), leave in place a minimum 60-foot natural riparian buffer between the stream and the land application area;

8. Provides for annual manure analysis for nitrogen and phosphorus content, following University of Tennessee Extension guidelines, and soil analysis at a minimum of once every 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);

9. Establishes 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. Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO shall minimize phosphorus and nitrogen transport from the field to surface waters in compliance with technical standards for nutrient management that:

(i) Include a field-specific assessment of the potential for nitrogen and 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, that employs the Tennessee Phosphorus Index (a tool developed by the University of Tennessee Extension Service and the USDA-NRCS to assess the risk of phosphorus movement from the application area to waters of the state); and

(ii) Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year 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

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(Rule 0400-40-05-.14, continued)

components, in consideration of recommendations from the University of Tennessee Extension and as determined appropriate by the Director;

10. Provides for periodic inspection of equipment used for land application of manure, litter, and other process wastewater.

(b) Nutrient management plan terms

Any permit issued to a CAFO shall require compliance with the terms of the CAFO's site-specific nutrient management plan such that the plan is enforceable through the permit. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan determined by the Director to be necessary to implement the nutrient management plan. For NPDES permits, the terms of the nutrient management plan, with respect to protocols that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, shall include the fields available for land application; field-specific rates of application properly developed through either the linear approach or the narrative approach; and any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application.

1. Linear approach

An approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications:

(i) The terms include:

(I) Maximum application rates from manure, litter, and process wastewater for each year of permit coverage and for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, per year, for each field to be used for land application;

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in subpart (a)9.(i) of this paragraph;

(III) The crops to be planted in each field or any other uses of a field such as pasture or fallow fields; the realistic yield goal for each crop or use identified for each field;

(IV) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field;

(V) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee Extension;

(VI) Consideration of multi-year phosphorus application in accordance with subpart (a)9.(ii) of this paragraph;

(VII) An accounting of all other additions of plant available nitrogen and phosphorus to the field;

(VIII) The form and source of manure, litter, and process wastewater to be land-applied;

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(IX) The timing and method of land application; and

(X) The methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied as described in part (a)8. of this paragraph.

(ii) Large CAFOs that use this approach shall calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application.

2. Narrative rate approach

An approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied, according to the following specifications:

(i) The terms include:

(I) Maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, for each field, and certain factors necessary to determine such amounts.

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in subpart (a)9.(i) of this paragraph;

(III) The crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in subpart (iii) of this part;

(IV) The realistic yield goal for each crop or use identified for each field; and

(V) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field for each crop or use identified for each field.

(ii) The terms include the methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied:

(I) Results of soil tests conducted in accordance with protocols identified in part (a)8. of this paragraph;

(II) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee;

(III) The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;

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(IV) Consideration of multi-year phosphorus application in accordance with subpart (a)9.(ii) of this paragraph;

(V) Accounting for all other additions of plant available nitrogen and phosphorus to the field;

(VI) The form and source of manure, litter, and process wastewater;

(VII) The timing, except as described in subpart (iv) of this part and method of land application; and

(VIII) Volatilization of nitrogen and mineralization of organic nitrogen.

(iii) The terms of the nutrient management plan include alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation. Where a CAFO includes alternative crops in its nutrient management plan, the crops shall be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan shall include realistic crop yield goals and the nitrogen and phosphorus recommendations as recommended by the University of Tennessee for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied shall be determined in accordance with the methodology described in items (ii)(I) through (VIII) of this part.

(iv) For CAFOs using this approach, the following projections shall be included in the nutrient management plan submitted to the director, but are not terms of the nutrient management plan: The CAFO's planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the nutrient management plan.

(v) CAFOs that use this approach shall calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in subpart (ii) of this part before land applying manure, litter and process wastewater and shall rely on the following data:

(I) A field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology required by subpart (ii) of this part, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Commissioner; and

(II) The results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

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(Rule 0400-40-05-.14, continued)

(c) Changes to a nutrient management plan

1. Any NPDES permit issued to a CAFO shall require the following procedures when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Director:

(i) The CAFO owner or operator shall provide the Director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of subparts (b)1.(ii) and (b)2.(v) of this paragraph are not considered to be changes to the nutrient management plan subject to the requirements of this paragraph.

(ii) The Director shall review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and shall determine whether the changes to the nutrient management plan include revision to the terms of the nutrient management plan as set forth in subparagraph (b) of this paragraph. If the terms of the nutrient management plan are not revised, the Director shall notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If the terms of the nutrient management plan are revised, the Director shall determine whether such changes are substantial changes as described in part 2. of this subparagraph.

(iii) If the Director determines that the changes to the terms of the nutrient management plan are not substantial, the Director shall make the revised nutrient management plan publicly available and include it in the permit record and inform the public of any changes to the terms of the nutrient management plan.

(iv) If the Director determines that the changes to the terms of the nutrient management plan are substantial, the Director shall notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public notice and participation shall follow the procedures applicable to draft permits set forth in Rule 0400-40-05-.06. The Director shall consider all significant comments received during the comment period and require the CAFO owner or operator to further revise the nutrient management plan if necessary. Once the Director approves the revised terms of the nutrient management plan, the Director shall issue a notice of determination that addresses all comments received and notifies the owner or operator and the public of the final decision concerning revisions to the nutrient management plan.

2. Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include, but are not limited to:

(i) Addition of new land application areas not previously included in the CAFO's nutrient management plan or in the terms of a nutrient management plan incorporated into an existing NPDES permit. If the CAFO owner or operator applies manure, litter, or process wastewater on the newly added land application area in accordance with existing field-specific permit terms applicable to the newly added land application area, such addition of new land would be a change to the new CAFO owner or

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operator's nutrient management plan but not a substantial change for purposes of this paragraph;

(ii) Any changes to the field-specific maximum annual rates for land application set in accordance with the linear approach or to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop set in accordance with the narrative approach;

(iii) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application; and

(iv) Changes to site-specific components of the CAFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the state.

3. CAFOs covered by state permits are subject to the following procedures when the CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Director:

(i) The CAFO owner or operator shall provide the Director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version.

(ii) The Director shall review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and shall determine whether the changes to the nutrient management plan include revisions to the terms of the nutrient management plan as set forth in subparagraph (b) of this paragraph. The Director shall advise the CAFO owner or operator whether or not the changes meet the requirements of this paragraph and applicable effluent limitations and standards and upon such notification the CAFO shall either make further revisions to the nutrient management plan or implement the revised nutrient management plan.

(11) CAFO Recordkeeping and Reporting Requirements

Any permit issued to a CAFO shall include:

(a) A requirement that the permittee shall create, maintain for 5 years, and make available to the Director, upon request, the following records:

1. Records documenting the implementation and management of the minimum elements described in subparagraph (10)(a) of this rule and all applicable records identified in parts 2. through 18. of this subparagraph;

2. A copy of the CAFO's site-specific nutrient management plan;

3. Records documenting the following visual inspections:

(i) Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the wastewater and manure storage and containment structure;

(ii) Daily inspections of water lines, including drinking or cooling water lines; and

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(iii) Weekly inspections of the manure, litter, and process wastewater impoundments noting the liquid level in the impoundments;

4. Weekly records of the depth of the manure and process wastewater in any open surface liquid impoundment as indicated by the required depth marker which indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. In the case of swine or poultry CAFOs that are new sources, the depth marker shall indicate minimum capacity necessary to contain the runoff and direct precipitation associated with the design storm used for sizing the impoundment;

5. Records documenting any corrective actions taken (if deficiencies are not corrected within 30 days of notice of deficiency, the records shall include an explanation of the factors preventing immediate correction);

6. Records of mortalities management and practices used to comply with the nutrient management plan;

7. Records documenting the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;

8. Records of the date, time, and estimated volume of any overflow;

9. Expected and actual crop yields;

10. The date(s) manure, litter, or process wastewater is applied to each field;

11. Weather conditions at time of application and for 24 hours prior to and following application;

12 Test methods used to sample and analyze manure, litter, process wastewater, and soil;

13. Results from manure, litter, process wastewater, and soil sampling;

14. Explanation of the basis for determining manure application rates, as provided in the technical standards established by the University of Tennessee Extension or as otherwise approved by the Director or the Tennessee Department of Agriculture and consistent with applicable state and federal rules;

15. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;

16. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;

17. The method used to apply the manure, litter, or process wastewater; and

18. Date(s) of manure application equipment inspection and calibration;

(b) Recordkeeping for third-party waste transfers

A requirement that prior to transferring manure, litter, or process wastewater to a 3rd party, all CAFOs shall provide the recipient of the manure, litter, or process wastewater

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with the most current nutrient analysis (consistent with 40 CFR Part 412 and approved by the University of Tennessee Extension). Large CAFOs shall ensure that the 3rd party signs an agreement for the removal of manure, litter, or process wastewater for all transfers of manure, litter, or process wastewater. All other CAFOs shall ensure that the 3rd party signs an agreement for the removal of manure, litter, or process wastewater only if the CAFO transfers more than 100 tons of manure, litter, or process wastewater. The agreement for the removal of manure, litter, or process wastewater shall be retained for 5 years and shall include the following information, at a minimum:

1. The name and location of the facility that is exporting manure, litter, or process wastewater;

2. The type and amount of material that is removed from the CAFO;

3. The date the material was removed from the CAFO;

4. The following best management practice recommendations:

   (i) The manure, litter, or process wastewater shall be managed to ensure there is no discharge of manure, litter, or process wastewater to surface or groundwater.

   (ii) When removed from the facility, manure, litter, or process wastewater should be applied directly to the field or stockpiled and covered with plastic or stored in a building.

   (iii) Manure, litter, or process wastewater shall not be stockpiled near streams, sinkholes, wetlands, or wells.

   (iv) Fields receiving manure, litter, or process wastewater should be soil tested at least every 5 years.

   (v) A manure, litter, or process wastewater nutrient analysis should be used to determine application rates for various crops.

   (vi) Calibrate spreading equipment and apply manure, litter or process wastewater uniformly.

   (vii) Apply no more nitrogen or phosphorus than can be used by the crop.

   (viii) A buffer zone is recommended between the application sites and adjacent streams, lakes, ponds, sinkholes, and wells. The following non-application buffer widths, based on the USDA-NRCS Conservation Practice Standard 590 (January 2013 version, or most recent version), should be used when applicable:

      (I) 150 ft. from wells located upslope of the application site;

      (II) 300 ft. from wells located downslope of the application site, if conditions warrant application;

      (III) 30-100 ft. from waterbodies, depending on the amount and quality of vegetation and slope;

      (IV) 300 ft. from all public use areas; and

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(V) 300 ft. from all residences other than the producer's.

(ix) Do not apply manure, litter, or process wastewater when the ground is frozen, flooded, saturated, or on steep slopes subject to flooding, erosion, or rapid runoff.

(x) Cover vehicles hauling manure, litter, or process wastewater on public roads.

(xi) Keep records of locations where manure, litter, or process wastewater will be land applied or used as a fertilizer.

5. A signed certification statement from the recipient of the material from the CAFO, including the recipient's name, address, and phone number.

(c) A requirement that CAFOs submit to TDEC, an annual report between January 1 and February 15 that includes:

1. The number and type of animals on site whether in open confinement or housed under roof;

2. Estimated amount of total manure, litter, and process wastewater generated by the CAFO in the previous calendar year (tons or gallons);

3. Estimated amount of total manure, litter, and process wastewater transferred to a 3rd party by the CAFO in the previous calendar year (tons or gallons);

4. Total number of acres for land application covered by the nutrient management plan;

5. Total number of acres under control of the CAFO that were used for land application of manure, litter, and process wastewater in the previous calendar year;

6. A summary of all manure, litter, and process wastewater discharges to waters of the state from the production area that have occurred in the previous calendar year, including date, time, and approximate volume;

7. A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner;

8. The actual crop(s) planted and actual yield(s) for each field;

9. The actual nitrogen and phosphorus content of the manure, litter and process wastewater;

10. The results of calculations to determine the maximum amount of manure, litter, and process wastewater to be land applied and the data used in the calculations;

11. The actual amount of manure, litter, and process wastewater applied during the previous 12 months;

12. The results of any soil tests for nitrogen and phosphorus conducted in the previous 12 months; and

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(Rule 0400-40-05-.14, continued)

13. The amount of any supplemental fertilizer applied during the previous 12 months.

(12) For CAFOs with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

(13) For CAFOs that are not subject to applicable federal effluent guidelines, the following standards shall be applied:

(a) For CAFOs that either discharge or are designed, constructed, operated, or maintained such that a discharge could occur, the production area shall be designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event.

(b) For all other CAFOs not subject to applicable federal effluent guidelines, the production area shall be designed, constructed, operated, and maintained so that no discharge will occur.

(14) No CAFO liquid waste management system shall be constructed, modified, repaired, or placed into operation after April 13, 2006, unless it is designed, constructed, operated, and maintained in accordance with final design plans and specifications which meet or exceed standards in the USDA-NRCS Field Office Technical Guide and other guidelines as accepted by the Departments of Environment and Conservation or Agriculture. Specifically, plans shall contain the following:

(a) Any new or additional confinement buildings, waste/wastewater handling system, waste/wastewater transport structures, waste/wastewater treatment structures, settling basins, lagoons, holding ponds, sumps, or pits, and other agricultural waste containment/treatment structures constructed after April 13, 2006, shall be located in accordance with USDA-NRCS Conservation Practice Standard 313.

(b) Information to be used in the design of the open manure storage structure including, but not limited to, minimum storage for rainy seasons, minimum capacity for chronic rainfall events, the prohibition of land application to frozen, saturated, or snow-covered ground, the dewatering schedules set in the CAFO's Nutrient Management Plan, additional storage capacity for any manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.

(c) The design of the open manure storage structure as determined by the most recent version of the USDA-NRCS's Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Director.

(d) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.

(e) The planning minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in subparagraph (b) of this paragraph. Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.

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(Rule 0400-40-05-.14, continued)

(f) A subsurface investigation for earthen holding pond, pit, sump, treatment lagoon, or other earthen storage/containment structure suitability and liner requirements shall be a component of the system design. The subsurface investigation will include a detailed soils investigation with special attention to the water table depth and seepage potential. The investigation shall evaluate soils to a depth of 2 feet below the planned bottom grade of the storage structure. Deeper investigations may be required in karst regions. A soils/geologic investigation shall be performed by a soil scientist (as described in Rule 0400-48-01-.18) and qualified geologist. A qualified geologist is defined as an individual who is a Registered Professional Geologist licensed by the State of Tennessee or an individual who meets the requirements for the title of Certified Professional Geologist as defined by the American Institute of Professional Geologists. Unless relevant information is available to the contrary, compliance with this provision during design and construction of the facility will normally demonstrate that the hydrologic connection does not exceed a maximum allowable specific discharge of 0.0028 ft/day (1×10^{-6} cm/sec).

Authority: *T.C.A. §§ 4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 20, 2013; effective February 18, 2014.*

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