

RATIONALE

State of Tennessee General State Operating Permit (TNB000000) for Land Application of Non-Exceptional Quality Biosolids

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1. Introduction

The purpose of this rationale sheet is to provide the basis for State of Tennessee permit conditions and related general permit procedures for any biosolids generator participating in the land application of non-exceptional quality (non-EQ) biosolids within the State of Tennessee. The permit does not apply to facilities that incinerate sewage sludge, disposal of sewage sludge in a landfill or place sewage sludge in a surface disposal site.

This Permit follows the expiration of the General State Operation Permit for the Land Application of Non-Exceptional Quality Biosolids that was issued on March 31, 2014.

Utilities requiring coverage under an SOP generally require the same monitoring, recordkeeping, and reporting requirements. Since permit requirements for all these facilities are similar, it is the opinion of the Division of Water Resources (division) that this category of sources is controlled more appropriately under a general SOP rather than under individual SOPs. This rationale sheet describes and gives the basis for permit conditions to be applied statewide to the operation of these biosolid land application programs.

2. Background

Biosolids are highly treated sewage sludge, a byproduct of wastewater treatment. In order to be designated as a biosolids product, the sewage sludge must meet several requirements including pollutant limits, pathogen reduction, and vector attraction reduction. The specific requirements are established within the Permit under Section 3. Utilities that utilize land application as a means of sewage sludge disposal, must prove that the requirements are met and keep a record of activity. There are additional requirements for recordkeeping, monitoring and reporting.

Biosolids generators that land apply must report annually to the division. Class I sludge management facilities, publicly owned treatment works (POTW), with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more must also report annually to the EPA.

3. Description of Activity

3.1 Operations eligible for coverage

Any utility who wishes to land apply non-exceptional quality biosolids in the state of Tennessee and meets the requirements found in the Permit and Rule 0400-40-15 Biosolids Management.

4. Permit Conditions

4.1 Notice of Intent

Facility representatives wishing to obtain coverage under the general permit must submit a completed notice of intent (NOI) using the form provided in Appendix A of the draft permit. The division will review the NOI for completeness and accuracy and, oftentimes perform an inspection of the facility and the farm site where land application will take place. If the NOI is complete and the inspection(s) find the facility to be in compliance, a Notice of Coverage (NOC) will be issued. If the NOI is not responded to by the division within 30 days, the facility is automatically granted coverage under the general permit.

4.2 Recordkeeping

The permittee is required to keep the above information indefinitely for each site subject to the cumulative contaminant loading rate of Table 2. For other sites the information shall be retained for five years.

4.3 Annual Reporting

By no later than February 19 of each year, the permittee shall submit a report including all information that the permit requires be recorded during the previous calendar year. (This includes, but is not limited to, items listed under Recordkeeping requirements for the permittee's land application practices in subpart 4.4.). The report shall include the results of all monitoring performed and the required information on pathogen requirements, vector attraction reduction requirements, management practices, land application sites, site restrictions, and the required signed certification statements. If no biosolids were land applied during the reporting period, "no biosolids were land applied" shall be reported in a signed letter to the State Biosolids Coordinator.

5. General Permit Issuance Procedures

This general permit is drafted in accordance with the Tennessee Water Quality Control Act (§ 69-3-101 et seq.), and the department's permit issuance regulations (Rules of the department 0400-40-05-.05 and 0400-40-10.01 through .03).

6. Updates and Changes

The following are revisions to the 2014 General Permit, other than general grammatical and structural modifications.

2.1. Land Application Sites with Existing Approval

The requirement for site approval letters was removed, we have not been requiring this prior to approval for new biosolids land application sites. The inspections are conducted as timely as possible, but not

always prior to site approval. Review of site maps has been found sufficient to review areas for potential water quality setbacks.

3.1.2.1. Class A Pathogen Requirements

The Class A pathogen alternatives were removed from appendix B and now follow the section 3.1.2.1. description.

3.1.2.2. Class B Pathogen Requirements

The Class B pathogen alternatives were removed from appendix C and now follow the section 3.1.2.1. description.

3.1.4. f)

Sampling collection, preservation, and analysis shall be performed in a manner consistent with the requirements of methods most recently approved by USEPA found in 40 CFR Part 503 or 40 CFR Part 136 and/or other criteria specified in this permit.

3.2.4. Restrictive Site Conditions

The segment from Rule 0400-40-15 Biosolids Management “Biosolids should not be land applied in any manner so that the bulk biosolids enter a wetland or other waters of the State of Tennessee” was added.

The segment “Where biosolids will be land applied on land subject to temporary flooding, the soils on these landscapes must, at a minimum, be well drained, must be undisturbed (natural), must not be a wetland, and must not contain any drains or artificially constructed wetlands to Waters of the State” was removed. The relevant portions of this segment are stated elsewhere. In regards to sites being well drained and undisturbed, we do not require any soil mapping or background soil information prior to site approval.

3.2.6. Contaminant Loading Rates

Section was eliminated due to redundancy. (also found in section 3.1.1.)

3.3. Storage of non-EQ Biosolids Prior to Land Application

Originally stated: “There is no limitation on the length of time non-EQ biosolids can be stored prior to land application”. Now states: “Long term field storage of biosolids prior to land application is not advisable. If non-EQ biosolids must be field stored, they shall be staged in a manner to prevent runoff or leachate from the designated storage area.” To more closely align with requirements of other nearby state environmental government agencies.

3.4.2. Permittee Recordkeeping Requirements

The certification statements were removed from this section and placed in their own Appendix D.

4.3. Reporting of Monitoring Results and Other Information

A statement to the State biosolids coordinator claiming “no biosolids were land applied” in a reporting year must also be signed.

5.4.1. Biosolids Transportation

This section is found in Rule 0400-40-15 Biosolids Management, and was included to reiterate the importance of proper transportation practices.

6.4. Continuing Coverage

This section was changed to mirror the coverage continuation requirements of Rule 0400-40-15 Biosolids Management.

6.5. Duty to Provide Information

Permittees shall also furnish records to field office representatives of the division.

7. DEFINITIONS

Aquifer was removed since it is not referenced anywhere in the permit.

Contaminate an aquifer was removed since it is not referenced anywhere in the permit.

Dry weight basis changed to adhere to the total solids analytical method which allows drying from 103-105 degrees Celsius.

Residential Equivalent Value was removed since it is not referenced anywhere in the permit.

Well drained soil was removed since it is not referenced anywhere in the permit.

For additional information, or to submit comments, contact:

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