

Fiscal Note

Amendment to Septage Management Rule
15A NCAC 13B .0840: Sampling and Analysis

Prepared by

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Basic Information

Commission:	Environmental Management Commission (Groundwater and Waste Management Committee)
Agency	DEQ, Division of Waste Management, Solid Waste Section
Title	Septage Management Rule: Sampling and Analysis
Citation	15A NCAC 13B .0840
Description of the Proposed Rule	Rule .0840 establishes provisions for the sampling and analysis of septage at septage management facilities across the state. The proposed amendment will reduce the frequency of soil sampling at septage land application sites.
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Authority	N.C.G.S. 130A – 291.1(b)
Statement of Necessity	The Department is proposing the rule amendment to reduce the burden of sampling frequency on state government and the regulated community, as historical results of analysis do not indicate any exceedances of cumulative pollutant loading rate limits in Table 2 of 40 CFR 503.13, and a reduction in frequency will not negatively impact the evaluation of trends or create risk.
Fiscal Impact Summary	State government: Yes Local government: No Substantial impact: No

Background

It is the responsibility of the Division of Waste Management (Division) Solid Waste Section to regulate how septage is managed within the state under the statutory authority of G.S. Chapter 130A-291.1. State rules governing septage management are found in Title 15A, Subchapter 13B of the North Carolina Administrative Code.

Rule 15A NCAC 13B .0840 establishes provisions for the sampling of septage for septage management firms, and for soil sampling at septage land application sites in North Carolina. Septage management firms in North Carolina are responsible for proper collection, transport, and disposal of septage waste at a facility or site permitted to receive the waste including sites where the septage is land-applied. Paragraphs (b) and (c) of the rule currently require that soil sampling be conducted annually for each field permitted for land application of septage.

Reason for Rule Change

The Department of Environmental Quality (Department) is proposing this rule amendment in an effort to reduce the burden of annual soil sampling on state government and the regulated community. A review of 7 years (2008-2014) of historical results of annual soil samples collected from permitted septage land application sites in accordance with paragraphs (b) and (c) of the rule did not indicate any exceedances of cumulative pollutant loading rate limits in Table 2 of 40 CFR 503.13, and a reduction in frequency would not impact the evaluation of trends or cause an increase in risk. Therefore, the Department is proposing to amend paragraphs (b) and (c) of the rule to reduce the frequency of soil sampling at land application sites from once per year to once every two years. The Department is also making some technical corrections to other paragraphs of the rule in response to pre-review by counsel for the Rule Review Commission. The proposed effective date for the rule amendment is May 1, 2017.

Cost/Impact of Complying with Proposed Rule Changes

The proposed rule changes decrease the frequency of required soil sampling at septage land application sites from once per year to once every two years. Changes to this rule affect private owners of current septage land application fields as they must comply with this rule; state employees who regulate these sites, and state laboratories which analyze the soil samples. The proposed rule amendment also makes technical changes with no impact. The overall impact of the proposed rule change would not be considered a substantial economic impact as aggregate annual impacts do not equal or exceed \$1 million (Table 1).

Table 1: Summary of Biennial Economic Impact

	Year 1	Year 2
Costs		
State	\$6,825	-
Private	-	-
Benefits		
State	\$10,920	-
Private	\$6,825	-
Net Impact	\$10,920	-

Private Industry Impact

Benefit

The septage management firm owners/operators submit a payment of \$25.00 per septage field at each permitted site to the Division staff to cover the cost of the laboratory analysis of the samples collected. In

June 2016, the Division has on record 119 permitted sites for septage land application. However, each of these sites can have multiple fields, and there is a total of 273 permitted fields. At \$25.00 per field for laboratory analysis, the total current cost to owner/operators of permitted septage land application sites for annual soil sampling is estimated to be \$6,825.00 per year, or \$13,650 over two years. Therefore, over two years the proposed rule change would save private industry approximately \$6,825.00.

Net State Government Impact

The proposed rule changes do not require any additional distribution of state government funds; however, the rule change will have a net benefit of \$4,095.00 (in staff time) on state government revenue and expenditures as described in the benefits and costs below.

Benefits

Currently and for at least the last 14 years, Division of Waste Management staff have conducted the soil sampling each year as regulatory assistance, although the current rule states that all expenses of sampling and analysis are the responsibility of the site owner/operators. Division staff collect soil samples while they are at the site doing a field inspection. Staff will continue to be required to conduct a field inspection regardless of whether they are soil sampling, so the travel time, mileage, etc. would not be affected by the rule change.

If one Division staff member takes an estimated average of 1 hour to collect and deliver samples to a laboratory per field, and assuming an average staff hourly billing rate of \$40.00 per hour (including benefits, calculated using the average salary for the three DWM Composting and Land Applications branch inspectors and the OSHR compensation calculator), then each annual sampling event of the 273 fields currently costs state government an estimated \$10,920.00 per year in Division staff time as a baseline, which would be \$21,840.00 over two years. Therefore, over two years the proposed rule change could save state government an estimated \$10,920.00 in staff time.

Cost

Division staff currently submit soil samples to the NC Department of Agriculture laboratory for analysis. As stated above, septage management firm owners/operators submit a payment of \$25.00 per septage field at each permitted site to the Division staff, which is submitted to the laboratory to cover the cost of the analysis of the samples collected. The proposed rule change would cause a decrease in revenue over two years of \$6,825.00 to the NC Department of Agriculture laboratory.

As there have been no exceedances of the cumulative pollutant loading rate limits in Table 2 of 40 CFR 503.13, a reduction in frequency would not impact the evaluation of trends or cause an increase in risk; therefore, there would be no cost to the state from increased risk.

Local Government Impact

The proposed rule changes do not affect the expenditures or revenues of local governments as they do not own or operate any septage land application sites, and are not involved with the oversight or compliance/enforcement of these sites.

Appendix A

15A NCAC 13B .0840 is proposed for amendment as follows:

15A NCAC 13B .0840 SAMPLING AND ANALYSIS

(a) Monitoring or sample analysis required by this Section, and all costs involved, are the responsibility of the septage management firm, site operator, or ~~the~~ owner of the wastewater system, as appropriate. This includes all costs of ~~analysis of sampling, collection, handling, and analysis of samples, testing,~~

(b) The permit holder of a septage land application site shall arrange for ~~annual~~ representative soil samples to be taken ~~once every two years~~ from each field at the permitted site during the last quarter of ~~each the~~ calendar year.

(c) Soil samples shall be taken ~~annually~~ ~~once every two years~~ from each area designated as a separate field of a permitted septage land application site and analyzed for cation exchange capacity, pH, phosphorus, potassium, ~~calcium~~ calcium, manganese, magnesium, zinc, and copper. If the results for zinc analysis are equal to or above 30 pounds per acre or the results for copper analysis are equal to or above 35 pounds per acre, analysis for the metals listed in Part (c)(10)(B) of Rule .0835 of this Section shall be required. ~~Analysis for other metals shall be required when zinc levels reach 30 pounds per acre or copper levels reach 35 pounds per acre.~~ Sites permitted to receive ~~septage, septage~~ other than domestic ~~septage, septage~~ shall be sampled ~~once every two years~~ annually to determine compliance with ~~40 CFR 257.3-5, 40 CFR 257.3-6.~~

(d) Domestic septage and grease septage shall be monitored in accordance with 40 CFR Part 503.16(b).

(e) Domestic treatment plant septage proposed to be land applied at a permitted septage land application site shall be sampled before the initial application, and annually thereafter, prior to being removed from a treatment facility for the following:

- (1) Metals ~~addressed~~ listed in 40 CFR 503.13; and
- (2) Total solids, pH, ammonia, nitrates, total ~~kjeldahl~~ kjeldahl nitrogen (TKN), biochemical oxygen demand (BOD), chemical oxygen demand (COD), total phosphorus, potassium, ~~sodium~~ sodium, and magnesium.

(f) Industrial or commercial ~~septage, septage~~ or commercial treatment plant ~~septage, septage~~ proposed to be land applied at a permitted septage land application ~~site, site~~ shall be sampled prior to being removed from a wastewater system. Analytical results shall be submitted to the Division ~~for consideration~~ prior to the issuance of a permit or approval to land apply the septage. Analysis shall be conducted for:

- (1) Metals ~~addressed~~ listed in 40 CFR 503.13;
- (2) Total solids, pH, ammonia, nitrates, TKN, BOD, COD, total phosphorus, potassium, ~~sodium~~ sodium, and magnesium; and
- (3) Organic chemicals, using a complete Toxicity Characteristic Leaching Procedure or other appropriate sampling, such as EPA Test numbers ~~8240-8260~~ or 8270, unless an examination of the industrial process and the material used indicates less extensive analysis is acceptable.

(g) Sample analysis required by this Section shall be performed by a laboratory certified for waste analysis. Analysis shall be conducted in accordance with 40 CFR Part 503.8. Organic chemical analysis shall be conducted according

to Subparagraph (f)(3) of this Rule. Results from the North Carolina Department of Agriculture and Consumer Services laboratory ~~will shall be accepted, accepted where appropriate.~~

History Note: Authority G.S. 130A-291.1;

Eff. October 1, ~~2009~~ 2009;

Amended Eff. May 1, 2017.

Appendix B

Proposed Rule-Making Schedule for Amendment to 15A NCAC 13B .0840

Date	Action
15-Jul-2016	Submit Rule Text and Fiscal Analysis to DEQ leadership, OSBM, and RRC for pre-review.
10-Aug-2016	Submit Rule Text and Fiscal Analysis to GWWMC Agenda, DEQ leadership, and OSBM.
7-Sep-2016	GWWMC Meeting: 2 Action items - Approval of proposed text and fiscal analysis, approval to go before EMC.
13-Oct-2016	Submit agenda item and attachments for EMC meeting.
10-Nov-2016	EMC Meeting: 2 Action items: Approval of text and fiscal analysis, Approval to proceed to public comment. Also assign Hearing Officer, get certification by chairman.
22-Nov-2016	Submit rule text to OAH for publication in NC Register.
15-Dec-2016	Rule published in NC Register and Agency website; Comment Period Begins.
30-Dec-2016	Earliest possible date for Public Hearing
13-Feb-2017	Comment Period Ends.
14-Feb-2017	Hearing Officer's Report finalized.
15-Feb-2017	Submit hearing officer's report, rule text to get on agenda for next EMC meeting.
10-Mar-2017	EMC Meeting: 1 Action item - Adoption of Rule. Approve Hearing Officer's Report.
20-Mar-2017	Submit text and forms to RRC.
20-Apr-2017	RRC meeting: 1 Action item - Approval by RRC.
1-May-2017	Earliest effective date for rule.

NOTES:

DEQ: Department of Environmental Quality
 OSBM: Office of State Budget and Management
 GWWMC: Groundwater and Waste Management Committee
 EMC: Environmental Management Commission
 OAH: Office of Administrative Hearings
 RRC: Rule Review Commission