
ENVIRONMENTAL Fact Sheet



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WEB-12

2022

Sludge Quality Certification (SQC) Program Requirements

What is a Sludge Quality Certification?

RSA 485A:4 XVI-c established that the New Hampshire Department of Environmental Services (NHDES) shall set chemical quality standards to ensure that sludge applied for beneficial use in the state of New Hampshire does not pose a threat to human health or the environment. The SQC Program was developed for sludge generators to certify that their sludge distributed in bulk (>100 pounds), is acceptable for beneficial use as a soil fertilizer/conditioner for agricultural purposes. The SQC also allows NHDES to document and continually monitor the quality of treated sludge materials that are being land applied throughout the state.

Who needs to apply for Sludge Quality Certification?

Any public or private treatment facility that generates sludge is eligible to apply for an SQC. Types of sludge acceptable for beneficial use include short paper fiber from paper mills, sludge from municipal wastewater treatment facilities, sludge removed from lagoons and residuals from drinking water treatment facilities. A facility may utilize an authorized agent to apply for an SQC on their behalf.

Are “Sludge” and “Biosolids” the same thing?

No, “sludge” is the solid or semi-solid material produced by water and wastewater treatment processes (excluding domestic septage), while “biosolids” are defined by RSA 485-A:2, XXII as “any sludge derived from a sewage wastewater treatment plant that meets the standards for beneficial reuse specified by the department [of Environmental Services].” Biosolids are treated sludge derived from a sanitary source that has obtained an SQC from NHDES for beneficial land application.

Is there a fee required with the SQC application?

If the facility is **not** a political subdivision permitted under RSA 485-A:13, then the applicant must enclose a \$1,000 initial application fee made payable to the “Treasurer-State of NH” with the SQC application.

What are the requirements in order for sludge to be Sludge Quality Certified?

A facility must demonstrate that the sludge generated by the facility consistently meets all state and federal standards to receive an SQC. These standards ensure that the sludge is not hazardous and does not pose a threat to public health or the environment. The Sludge Quality Certification section of the Sludge Management Rules, [Env-Wq 809](#), contain all the requirements of the SQC program.

The sludge must also show it can be a benefit for the farm field as a soil fertilizer/conditioner, by providing necessary additional nutrients to meet crop needs. If the sludge to be certified is generated outside of New Hampshire, it must meet the chemical quality standards of the state of origin, or the New Hampshire standards, whichever is more stringent.

What standards must sludge meet to obtain a Sludge Quality Certification?

Sludge must meet both the state (Env-Wq 809) and federal (40 CFR part 503) requirements for beneficial use to obtain an SQC. Additionally, all sludge must meet the most recent NHDES chemical quality standards. These standards may also include screening for certain emerging contaminants. The table below indicates the analytical methods for the required chemical quality screening.

Analytical Methods for obtaining an SQC according to Table 809-02.	
Compound	Analytical Method
Group A – Volatile Organic Compounds (VOCs)	68000 series
Group B – Semi-Volatile Organic Compounds (SVOCs)	68000 series
Group C – Metals	66000/7000 series
Group D – Polychlorinated Biphenyls (PCBs)	68000 series
Group E – Additional Analyses:	
Asbestos	500-H
Total Suspended Solids (TSS)	540-G
Nitrate-Nitrite	500-NO ₃ , SW846-9210, EPA 353 3000 series
Total Kjeldahl Nitrogen	500-Norg, EPA-351.3
Ammonia Nitrogen	500-NH ₃ , EPA 350
Organic Nitrogen	Distillation
Lead	500-K, SW846 6000/7000 series
Phosphorus	500-P, EPA 365
Group F – Dioxins	613
Group G – Per- and polyfluoroalkyl substances (PFAS)	MS using isotope dilution or approved EPA method

All sludge/biosolids sampling must be performed according to [“The Wastewater Treatment Plant Operators Guide to Biosolids Sampling Plans”](#) published by the New England Interstate Water Pollution Control Commission, dated September 2006.

What are Emerging Contaminants?

Emerging contaminants are manmade chemicals that may be present in the environment, where the risk to human health and the environment is not yet known. NHDES is always monitoring emerging contaminants and works to establish new screening standards within our SQC program to protect human health and the environment.

Currently we are investigating the impacts of chemicals such as per- and polyfluoroalkyl substances (PFAS) that may be present in treated sludge/biosolids, and their impact on soil, surface and groundwater when the material is/has been land applied on farm fields. HB 1547 requires NHDES to submit PFAS soil standards to NH Legislation by November 2023. The New Hampshire USGS PFAS Soil and Sludge Leaching Study is slated to be complete with a report to NHDES fall of 2022. This will give NHDES one year to model PFAS leaching in soil and create PFAS soil standards that will assist in calculating a sludge standard to be implemented into Env-Wq 800. NHDES will continue their PFAS investigation with sludge, septage, and wastewater and we will develop PFAS rules for land application of biosolids.

Are all applications for an SQC approved?

No, approval of SQC applications is not certain. Only sludge demonstrating a benefit for soil quality and that does not pose a risk to human health or the environment can be approved. NHDES encourages all applicants to have discussions with the NHDES Residuals Management Section before submitting an SQC application for Technical Assistance with the SQC process.

When does certification expire?

An SQC expires *five years* from the date it is issued by NHDES. Every five years the SQC holder may apply to renew their SQC for another five-year period.

What needs to be included in a Sludge Quality Certification application?

The applicant must include all the information requested on the [Sludge Quality Certification Application](#). This would include attaching laboratory reports demonstrating the chemical quality of the sludge is acceptable for beneficial use.

How is sludge tested to verify that the SQC chemical quality standards are consistently being met?

Prior to making an application for a SQC, sludge generated at a facility must be sampled two to four times a minimum of 30 days apart over the course of a year depending on the volume produced at the generator. These samples must be analyzed for the required list of chemicals and the test results submitted to NHDES with the initial SQC application.

Once a facility receives an SQC, its sludge must be periodically sampled and tested. The testing frequency is based on the amount of sludge generated by the facility per Env-Wq 809.07. The sampling frequency ranges from twice per year for smaller facilities, to once per month for larger facilities.

Is there independent verification of SQC requirements?

Yes. NHDES annually takes sludge samples from certified wastewater treatment facilities and from biosolid stockpiles at land application sites. These samples are analyzed at an independent New Hampshire-certified laboratory to verify that all SQC requirements are being met. An annual report of these findings is prepared by NHDES and submitted to the New Hampshire Legislature in accordance with RSA 485A:4 XVI-c.

What happens if tested sludge does not meet the requirements?

If the test results submitted with an initial SQC application do not meet state and federal rules, the application is denied. Applicants are encouraged to hold off applying for an SQC until it can demonstrate its sludge can consistently meet the standards.

If test results from the periodic sampling of sludge at certified facilities demonstrate that requirements are not being met, distribution for land application of sludge from that facility is halted by NHDES. Land application may only restart after a series of new samples are collected, and the submitted results are reviewed and approved by NHDES.

What needs to be regularly submitted to NHDES to maintain an SQC?

Each SQC holder must prepare and submit an annual report to NHDES by the last business day of January for the prior year, containing information about the facility and certified sludge, including:

- The quantity of sludge generated.
- The results of all required testing for the prior year.
- The location and amount of biosolids recycled/beneficially used.

The annual report must also include a \$500 fee made payable to the “Treasurer-State of NH,” as mandated by RSA 485 A-4 XVI-c (b).

For more information

The NHDES Residuals Management Section can be reached by phone at [\(603\) 271-3571](tel:6032713571) or at SludgeandSeptage@des.nh.gov