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ENVIRONMENTAL PROTECTION

WATER RESOURCE MANAGEMENT

DIVISION OF WATER QUALITY

Sludge Quality Assurance

Readoption with Amendments: N.J.A.C. 7:14C

Proposed: June 6, 2011 at 43 N.J.R. 1312(a).

Adopted: October 25, 2011 by Bob Martin, Commissioner, Department of Environmental Protection.

Filed: October 27, 2011 as R.2011 d.285, **without change.**

Authority: N.J.S.A. 13:1D-9; 13:1E-1 et seq.; 58:10A-1 et seq.; 58:11-49 through 58; and 58:11-64 et seq.

DEP Docket Number: 09-11-05.

Effective Date: October 27, 2011, Readoption;
November 21, 2011, Amendments.

Expiration Date: October 27, 2018.

The New Jersey Department of Environmental Protection (Department) is readopting the Sludge Quality Assurance rules (SQAR) at N.J.A.C. 7:14C. The SQAR establish the conditions for sludge quality assurance reporting required of all domestic and industrial treatment works that generate sludge in the State of New Jersey, or that transport sludge into the State for use or disposal. The rules prescribe the method and frequency for reporting on the quantity, quality and management method of sludge

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generated by such treatment works. The rules do not establish sludge limits, but only serve as the mechanism to gather data on sludge. The requirements of SQAR are implemented through permits issued under the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A.

The adopted amendments extend the domestic analytical exemption in the prior rules (applicable to Category 1 domestic treatment works that generate only domestic septage) to small generators with a permitted wastewater flow of less than or equal to 20,000 gallons per day (0.020 million gallons per day), provided that their sludge is removed to, and subsequently monitored as part of the sludge at, an off-site in-State treatment works treating domestic sewage; require electronic submittal of monitoring reports; allow treatment works to analyze sludge by methods approved by the Department's Office of Quality Assurance; require a sludge sampling plan every five years as part of a NJPDES permit application; conform definitions to definitions in the NJPDES and Federal rules; and update Department addresses.

The proposed readoption with amendments was published in the New Jersey Register at 43 N.J.R. 1312(a) on June 6, 2011. The comment period closed on August 5, 2011.

Summary of Public Comment and Agency Response:

No comments were received.

Federal Standards Analysis

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65) require State agencies that adopt, readopt, or amend State regulations that exceed any

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Federal standards or requirements to include in the rulemaking document a Federal standards analysis. Some of the adopted SQAR requirements regarding sewage sludge (that is, sludge generated by domestic treatment works) may be considered more stringent than corresponding Federal sludge quality provisions. However, there is no comparable Federal program for testing industrial sludge.

In 1993, under the authority of Section 405(d) and (e) of the Clean Water Act, the USEPA promulgated Federal sludge management regulations at 40 CFR Part 503. The Federal regulations established general requirements, pollutant limits, management practices, and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. The USEPA established a monitoring frequency, from annual to monthly, based upon the metric tons of sewage sludge generated by the domestic treatment works on an annual basis. The Department subsequently incorporated the provisions of the Federal rule for land application into the NJPDES regulations at N.J.A.C. 7:14A-20.

The Federal regulations at 40 CFR Part 503 also require all Publicly Owned Treatment Works with a wastewater design flow over one million gallons per day (MGD) to submit basic information on sludge quantity and quality (publicly owned treatment works under one MGD are required to perform analyses, but not to report the results). The parameters required to be monitored under Federal regulation are included under N.J.A.C. 7:14C, Table I of the Appendix. However, Table I includes additional parameters not required to be monitored under the Federal rule. Two of these parameters are potassium and calcium. The Department uses both potassium and calcium data to determine the agronomic rate for land application under N.J.A.C. 7:14A-20. The cost of

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performing these two additional analyses is estimated to be less than \$50.00 per sample.

Therefore, considering that data for potassium and calcium are necessary to maintain a record of typical concentrations expected for these parameters in order to determine agronomic rates, the Department has determined that the benefit of obtaining the data justifies the additional cost. In addition, the Appendix, Table I includes the requirement for some domestic treatment works to monitor for radionuclides and/or dioxins and PCBs on a case-by-case basis. However, in order to require certain facilities to monitor for these parameters, the Department will set forth the basis in a NJPDES permit issued pursuant to N.J.A.C. 7:14A. Therefore, any domestic treatment works required to monitor for these parameters will have an opportunity to comment pursuant to procedures set forth at N.J.A.C. 7:14A.

The USEPA, under 40 CFR Part 503, does not require the analysis of additional parameters, such as volatile organics, acid extractables, base-neutrals, pesticides and PCBs. The rules readopted with amendments are more stringent than the Federal requirements in that the rules require some domestic treatment works to perform analyses for these parameters. The SQAR only require domestic treatment works with a design flow equal to or greater than one MGD to submit an annual priority pollutant scan for these parameters. This is more stringent than the current Federal requirements at 40 CFR Part 503, but is consistent with Federal rules at 40 CFR Part 122. (See 60 Fed. Reg. 62570-62575 (December 6, 1995).) In addition, the Department is retaining the requirement for domestic treatment works with a design flow greater than one MGD to submit a priority pollutant scan because N.J.A.C. 7:14A-20.5 requires treatment works to comply with standards, including standards for some of the parameters on a priority

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pollutant scan indicated above, for sludge use or disposal identified in the USEPA's Technical Support Documents for Land Application and Surface Disposal. (See 29 N.J.R. 2127-2128.)

As stated above, the USEPA established sludge monitoring frequencies based upon the dry metric tons of sewage sludge generated by the domestic treatment works. The Department has established consistent monitoring requirements in its sludge use or disposal rules at N.J.A.C. 7:14A-20. However, for the purpose of determining reporting frequency under the SQAR for generators, existing N.J.A.C. 7:14C establishes the frequency of monitoring based on the design flow of the domestic treatment works. The monitoring frequencies at N.J.A.C. 7:14C are at least as stringent as the Federal rules. For some domestic treatment works, the reporting frequencies under N.J.A.C. 7:14C are more stringent than required under the Federal regulations.

The Department considered changing the reporting method for domestic treatment works from wastewater flow to dry metric tons of sludge produced, but rejected the idea. Approximately 34 percent of domestic treatment works, including most of the largest domestic treatment works, would have been eligible for a reduction in reporting the residuals Discharge Monitoring Report required under N.J.A.C. 7:14C-1.8(c) if the method of determining the SQAR categories were changed. The Department does not believe that current demographics for the State support such a change at this time. The Department believes that the current more conservative reporting structure is warranted, in light of the State's population density. However, in contrast, the Department does believe that an exemption for the smallest 114 domestic generators is warranted. This

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number represents about 30 percent of the domestic treatment works universe currently required to perform analyses under the rules.

As stated above, there is no comparable Federal program for monitoring the quality of sludge generated by industrial treatment works. In developing its rules for residual use or disposal at N.J.A.C. 7:14A-20, the Department used standards established by Federal rule at 40 CFR Part 503 for sewage sludge for all nonhazardous sludge. This approach is consistent with the 1987 amendments to the Clean Water Act (Section 405(f)), as well as with N.J.S.A. 58:10A-4 and 6. (See 28 N.J.R. 389 (February 5, 1996).) The Department believes its program requiring data on the quality of sludge generated by industrial treatment works is necessary to ensure that the land-based management of the industrial sludge will not have adverse effects on air, surface water and ground water, or human health.

Where possible, the Department has established requirements based on the size of the treatment works. Where the SQAR are more stringent than Federal rules, the Department has determined that the need for the additional data is necessary to ensure that land-based sludge management alternatives will not have adverse effects upon public health or the environment.

Full text of the readopted rules can be found in the New Jersey Administrative Code at N.J.A.C. 7:14C.

Full text of the adopted amendments follows:

TEXT

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