

Sufficiently Sensitive Test Methods



General

1) **What is the Sufficiently Sensitive Rule and where can I find it?**

- The purpose of this rulemaking is to clarify that applicants and permittees in the National Pollutant Discharge Elimination System Program (in NJ this is the NJPDES program) must use EPA-approved analytical methods that are capable of detecting and measuring the pollutants at, or below, the applicable water quality criteria or permit limits.

An EPA fact sheet is available at:

<https://www.epa.gov/npdes/npdes-ssm-fact-sheet>

The rule itself is available at:

<https://www.federalregister.gov/articles/2014/08/19/2014-19265/national-pollutant-discharge-elimination-system-npdes-use-of-sufficiently-sensitive-test-methods-for>.

2) **When do the Sufficiently Sensitive Test Methods (SSTM) requirements become effective?**

- This final rule became effective on September 18, 2014 and all analytical monitoring shall immediately come into compliance with the final rule.

3) What are the criteria for determining if the test method is sufficiently sensitive?

- An EPA-approved method is sufficiently sensitive where:
 - A. The method minimum level is at or below the level of the applicable water quality criterion or permit limitation for the measured pollutant or pollutant parameter; or
 - B. The method minimum level is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 - C. The method has the lowest minimum level of the EPA-approved analytical methods.

4) What is EPA's definition of method minimum level (ML)?

- The term method "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). For the purposes of this rulemaking, EPA is considering the following terms related to analytical method sensitivity to be synonymous: "quantitation limit," "reporting limit," "level of quantitation," and "minimum level." (footnotes #5 & #6 on page 49003 of the rule which can be found at <http://www.gpo.gov/fdsys/pkg/FR-2014-08-19/pdf/2014-19265.pdf>)

NOTE: The method minimum level is not the same as method detection level.

5) Is there a list available of the acceptable quantitation levels or range for each toxic pollutant I have to monitor in my effluent? Will NJDEP be establishing its own MLs for each approved analytical method?

- At this time, the Department does not have a list available of the acceptable quantitation levels or range for each toxic pollutant. Even if such a list were compiled, the rule is comprised of three possible situations in which each option must be evaluated for individual pollutants. For example, if data from an individual facility is showing quantifiable values in the effluent even with a relatively high quantitation limit, a method utilizing a greater sensitivity is not required since all of the data is already detectable and quantifiable. In addition, if a limitation for a pollutant in a facility's discharge is a large number, an extremely sensitive method may not be necessary in order to meet the SSTM rule.

Specific Questions / Examples

6) I have a NJPDES permit limit for chlorine produced oxidants and routinely submit non-detectable values on my monitoring report form. I have historically reported <0.1 mg/L rather than the actual laboratory analytical quantitation limit. Should I continue this practice?

- No. Under this scenario, reporting <0.1 mg/L on a Discharge Monitoring Report form is no longer acceptable and is not in compliance with the new SSTM rule. Laboratories must report the actual concentration obtained at testing, and not simply reporting the data as <0.1 mg/L. For example, if the analytical quantitation level is 0.02 mg/L and the result is “ND” or non-detectable, the permittee shall report <0.02 mg/L.

7) I have a NJPDES permit limit of 0.007 mg/L for chlorine produced oxidants and my NJPDES permit states “Where the WQBELs are more stringent than the quantification limit (i.e. 0.1 mg/L), effluent compliance will be determined by comparing the reported value against the applicable quantification limit. Therefore, the enforceable daily maximum and monthly average concentration limitation is 0.1 mg/L.” Will my compliance still be judged against the reporting level of 0.1 mg/L for CPO?

- Yes, for permits that still contain this language indicating that compliance is judged against the RQL, permit compliance will continue to be assessed against the 0.1 mg/L level until such time as this language and the RQL are removed from the permit. This will most likely occur in the next permit renewal. However, if the RQL of 0.1 mg/L is less stringent (a higher number) than your water quality based effluent limitation, it is likely that this reporting level is not in compliance with the SSTM rule. If the method cannot detect to a level equal to or more sensitive than the WQBEL, a new test method may be necessary. Note that New Jersey laboratory certification is required for all methods performed to demonstrate compliance with this rule.

8) What are the criteria for determining if the test method is sufficiently sensitive for the parameters that do not have an assigned limit? In my NJPDES permit, ammonia is a “report only” parameter and the permit does not specify an RQL.

- For parameters without a permit limitation, choosing a method that can quantify down to the sensitivity of the water quality criterion would be the first choice. The water quality criteria in the State of New Jersey are the New Jersey Surface Water Quality Standards which are available at:

http://www.nj.gov/dep/rules/rules/njac7_9b.pdf

9) For the parameter, Lead, our lab quantitation level is 10 ug/l. The RQL in our NJPDES permit is also 10 ug/l. There is no limit for lead in my permit. How do I comply with the SSTM rule?

- Since Lead is not limited in your permit, in order to meet the first scenario in the sufficiently sensitive hierarchy, the method must be compared against the surface water quality criteria. In the case of Lead, the lowest criteria is the human health criteria, which is 5 ug/L. Therefore in order to meet this first tier of acceptability for sufficiently sensitive, the method would have to be able to quantify down to 5 ug/L.

10) My NJPDES/Discharge to Surface Water permit contains specific Recommended Quantitation Levels (RQLs) for many parameters with more stringent effluent limitations. Will permit compliance continue to be assessed against the RQLs?

- Yes. Permit compliance against RQLs will continue as long as the RQLs are retained in the current permit. Currently, as permits are renewed and/or modified, the RQLs are removed. The federal rule is in effect as of September 18th, 2014 and currently applies to all permittees/applicants in the NJPDES Surface Water Permitting Program. The RQLs contained in the existing permit may or may not comply with the new SSTM rule. Permittees and certified labs are encouraged to evaluate the rule text and determine if the methods currently used are in compliance with the SSTM rule. If it is determined that a particular method is not in accordance with the rule, appropriate changes will need to be made to the sampling, reporting, or methodology in order to comply. In addition new lab certifications may be required if a method change becomes necessary.

11) For the parameter, Arsenic, our WQBEL is 0.017 ug/L which is less than the most sensitive analytical method of EPA approved methods which is 3 ug/L. How do I comply with the SSTM rule?

- Since the method used has the lowest minimum level of the EPA-approved analytical methods, it is in compliance with the SSTM rule.

12) Is the Department going to remove the RQLs from the permits?

- Yes. The recently adopted EPA rule does not provide for the continued use of RQLs in NJPDES permits. Therefore, it is the Department's intention to remove the RQLs upon renewal. Permittees/Labs shall prepare for any upgrades necessary to comply with the rule.

Questions for Laboratories

13) I am a contract certified laboratory that is performing the testing for the permittees as my client, how is my laboratory responsible for complying with the SSTM rule?

- Laboratories are required to ensure they conduct compliance testing in accordance with their clients specifications, and that they maintain the required certification for any methods used for that testing. Laboratories are strongly encouraged to consult with their clients and obtain a copy of the most current and effective permit to ensure that the most sensitive methods are being used at the laboratory for non-potable water testing.

14) My New Jersey certified laboratory is located at or associated with the regulated discharge from my treatment facility, is my laboratory responsible for meeting the SSTM rule requirement for the parameters and methods I use at the laboratory?

- Yes. This testing is performed to demonstrate compliance with the requirements of the permittee's regulated discharges.

Contact Information/Questions

15) If I have questions relating to lab methods for Sufficiently Sensitive Test Methods (SSTM) or issues with a particular method in meeting the specified quantitation level, whom should I call?

- For questions regarding the applicability of the rule and whether or not the facility is complying with the target level of sensitivity, contact Steve Seeberger of the Bureau of Surface Water Permitting at (609) 292-4860 or via email at Stephen.Seeberger@dep.nj.gov
- For questions regarding laboratory methodologies, certifications, or specifics relating to quantitation limits associated with individual test methods, contact Debra Waller of the Office of Quality Assurance at 609-292-3950 or via email at Debra.Waller@dep.nj.gov