samples that have been prepared to approximate the middle of the concentration range normally encountered in the analysis. The laboratory shall record the theoretical or true value. The laboratory shall calculate and plot the mean value, the warning limits (two standard deviations), and the corrective action limits (three standard deviations); and

ii. The laboratory shall record subsequent quality control results for each parameter, and compare the results against its control limits. The control limits shall be updated after a batch of 20 new measurements.

10. A certified environmental laboratory or a laboratory that is applying for certification shall determine its own MDLs in reagent water. MDL data are required for all DSAMs containing reference MDL data for which the laboratory possesses or is applying for certification. The laboratory shall make the MDL determinations in accordance with 40 CFR 136 Appendix B. The Office of Quality Assurance may require the laboratory to determine MDLs for any DSAMs for which it possesses certification. This data is required to support Water Technical Programs N.J.A.C. 7:9-4 and 6:

i. For analyses in the Clean Air Program, the laboratory shall utilize a test method that provides a detection limit that is appropriate and relevant for the intended use of the data. Detection limits shall be determined by the protocol in the mandated test method or in accordance with 40 CFR Part 136, Appendix B. If the protocol for determining detection limits is not specified, the selection of the procedure shall reflect instrument limitations and the intended application of the test method. A detection limit study is not required for any component for which spiking solutions are not available. All procedures shall be documented. Documentation shall include the matrix type. All supporting data shall be retained. The laboratory shall have established procedures to tie detection limits with quantitation limits.

11. A certified environmental laboratory shall determine its MDL data (as stated in (c)10 above) annually. All regulatory sample data except CERCLA CLP shall include the most recent MDL values determined by the laboratory;

12. The laboratory shall maintain a permanent maintenance record containing the following information for each instrument:

i. The date of instrument installation;

ii. The date and a description of repairs, modifications, and preventive maintenance;

iii. The signature of the person performing the maintenance; and

iv. Chromatographic column information and installation date.

13. The laboratory shall maintain a bound notebook containing records of the preparation of standards. The laboratory shall include the following information in the records:

i. The manufacturer's name and lot number of reagent, date received, percent purity, name of chemical, concentrations if a solution;

ii. The identification number of the concentrated stock standard solution, date of preparation, expiration date, signature of the analyst who prepared the solution, all chemical compounds in the solution, purity, gross weight, tare weight, net weight, adjusted net weight (corrected for purity of primary standard) (only net weight and adjusted net weight are required when using balances with automatic tare features), dilution volume, and concentration in specified units;

iii. The identification number of the intermediate concentration standard solution (if needed), date of preparation, expiration date, signature of the analyst who prepared the solution, all chemical compounds in the solution, identification number of the concentrated stock, strength of concentrated stock, aliquot of concentrated stock, dilution volume, and final concentration in specified units; and

iv. The identification number of the working standard solution, date of preparation, expiration date, signature of the analyst who prepared the solution, all chemical compounds in the solution, identification number of the intermediate concentration standards, concentration of intermediate standards, aliquot volumes, dilution volumes, and final concentrations in specified units.

Amended by R.2001 d.224, effective July 2, 2001.
See: 33 N.J.R. 1063(a), 33 N.J.R. 2284(c).
In (c)5 and (c)7 through (c)9, amended categories.
Amended by R.2003 d.411, effective October 20, 2003.
See: 35 N.J.R. 312(a), 35 N.J.R. 4878(a).
Rewrote the section.
Amended by R.2015 d.068, effective April 20, 2015.
See: 46 N.J.R. 2234(a), 47 N.J.R. 782(a).
In (c)5, substituted "DW06, DW07, DW13, NPW07, NPW08, NPW16, SCM06, SCM07, SCM14, AE02, AE06, BT03, BT04, and BT08" for "SDW02, SDW04, WPP02, WPP04, SHW04, SHW09, and CAP02"; in (c)6, substituted "AE01, AE02, AE03, AE04, and AE06" for "CAP01, CAP02, and CAP03"; in the introductory paragraph of (c)7, substituted "DW03, DW05-DW07, DW13, NPW03, NPW05, NPW07-NPW08, NPW16, SCM03-SCM04, SCM06-SCM07, SCM14, AE01-AE04, AE06, BT01, BT03-BT04, and BT08" for "SDW02, SDW04, WPP02, WPP04, SHW04, SHW09, CAP01, CAP02, and CAP03"; in (c)7iii, substituted "AE01-AE04 and AE06" for "CAP01, CAP02, and CAP03"; rewrote the introductory paragraph of (c)8 and of (c)9; in (c)8iv, substituted "AE01-AE04, and AE06" for "CAP01, CAP02, and CAP03"; and in (c)9i, substituted "DW03 and DW05-DW07" for "DW02 or DW04".

Cross References

Duties of environmental laboratory personnel, see N.J.A.C. 7:18-2.11.

7:18-5.6 Requirements for records and data reporting

(a) The laboratory shall retain records concerning chemical analyses. The records to be retained include raw data records, quality control data records (including records of all quality control checks under N.J.A.C. 7:18-5.5(c)), chain-of-custody forms, laboratory reports, and the information required under (d) below. The laboratory shall retain each record for at least five years after the date of the analysis, provided however, that the laboratory shall retain records of analyses for 10 years if the person requesting the analyses has informed the laboratory that the analyses were to be performed because of epidemiological or public health concerns.

(b) The laboratory shall file and maintain data and other records in an accessible location on the laboratory's premises for one year after the date of analysis so that reviews can be conducted during on-site audits.

(c) The laboratory shall not accept custody of regulatory samples unless a chain-of-custody form is submitted with the samples, in accordance with N.J.A.C. 7:18-9.3(b)4.

1. Before accepting custody of a regulatory sample, the laboratory shall determine that the sample is properly labeled and has met the handling and preservation requirements. If the sample fails to meet those requirements, the laboratory shall indicate that failure on the chain-of-custody section of the sample request form or the chain-of-custody form;

2. The laboratory's sample custodian accepting responsibility for the sample shall sign the chain-of-custody form;

3. The laboratory shall have an internal chain-of-custody procedure or an alternate sample tracking procedure which establishes a sample's integrity and completely tracks its custody during its lifetime in the laboratory; and

4. If the analysis was not performed at the environmental laboratory that first received the sample, the chain-of-custody form shall include the name, address and identification number of the New Jersey certified environmental laboratory to which the sample was forwarded.

(d) The laboratory shall retain the following information as part of the records of analysis:

1. The assigned laboratory sample number or other unique form of identification;

2. The date and time of sample preparation and analysis;

3. The name and signature of the person or persons who performed the analysis;

4. The type of analysis performed and the DSAM used;

5. The results of the analysis and the raw data generated by the analysis, including any correction factors; and

6. The results of the initial calibrations, calibration check standards, and method quality control requirements.

(e) The laboratory shall check all results reported on final report forms against original data to make sure there are no transcription errors.

(f) If the laboratory discovers an error in the analysis of a regulatory sample, and the error may affect the validity of the reported analytical result, the environmental laboratory manager shall report the error to the regulatory program for which the analysis was conducted, and to the client. The laboratory shall make this notification within 72 hours after discovery of the error.

(g) The laboratory shall not report results of analyses to the Department or to any other person unless the original or true duplicate of the results is sent to the client. The report shall be signed by the laboratory manager or designee identified pursuant to N.J.A.C. 7:18-2.11(a)1iii.

(h) The laboratory shall not refer samples to another laboratory for analysis, unless the other laboratory is also a certified environmental laboratory. The laboratory requesting the analysis shall provide the results to the client, on the original or true duplicate forms from the certified environmental laboratory that performed the analysis, containing the New Jersey environmental laboratory identification number of the certified environmental laboratory that performed the analysis.

(i) When the laboratory determines that the concentration of nitrate, nitrite, or nitrate/nitrite in a regulatory drinking water sample exceeds the MCL, the laboratory shall notify the affected parties as follows:

1. For non-transient non-community and transient non-community water systems, the laboratory shall notify the water purveyor and the municipal health agency (or, if there is no municipal health agency for the municipality in question, the county health agency) within 24 hours or during the next business day;

2. For community water systems, the laboratory shall notify the water system's superintendent and the Department's Bureau of Safe Drinking Water within 24 hours or during the next business day; or

3. For testing conducted in conformance with the PWTA, the laboratory shall notify both the client requesting such analysis and the local health authority within 24 hours or during the next business day, whichever is sooner.

(j) The laboratory shall include at least the following information in reporting analyses for the Safe Drinking Water Program or the Water Pollution Program:

1. The certified environmental laboratory name and New Jersey laboratory identification number;