ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL SAFETY, HEALTH AND ANALYTICAL PROGRAMS

Regulations Governing the Certification of Laboratories and Environmental

Measurements

Incorporation of Requirements for Air Testing

Proposed Amendments**:**	N.J.A.C. 7:18-1, 2, 5 and 9
Authorized by**:**	Bradley M. Campbell, Commissioner Department of Environmental Protection.
Authority:	N.J.S.A. 58:12A-1 et seq.; N.J.S.A. 58:10A-1 et seq.; N.J.S.A.26:2D-70 et seq.; N.J.S.A. 13:1E-1 et seq.; N.J.S.A. 13:1K-6 et seq. N.J.S.A. 58:10-23.11 et seq. N.J.S.A. 26:2C-1 et seq.; and N.J.S.A. 13:1D-9 et seq.
Calendar Reference:	January 6, 2003 at 34 N.J.R.
DEP Docket No.:	39-02-12/329
Proposal Number :	

Submit written comments (within 30 days after publication of this proposal) to:

Karen L. Hershey, Esq.
Attention: DEP Docket No. 39-02-12/329
Office of Legal Affairs
Department of Environmental Protection
P.O. Box 402
Trenton, New Jersey 08625-402

The agency proposal follows:

Summary

The New Jersey Department of Environmental Protection (Department) is proposing amendments to the Regulations Governing the Certification of Laboratories and Environmental Measurements, N.J.A.C. 7:18, to establish a program for the certification of laboratories that analyze air samples for the State. These amendments will be adopted pursuant to The New Jersey Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., and will be incorporated as an expansion of the existing laboratory certification program.

The laboratory certification program is administered by the Department's Office of Quality Assurance (OQA), and establishes certification criteria for laboratories that analyze drinking water, wastewater, ground and surface waters, solid hazardous wastes, and radon in air. Laboratories may apply for certification to perform analytical methods for use in one or more of the following regulatory programs: Safe Drinking Water (SDW), Water Pollution Prevention (WPP), Solid Hazardous Waste (SHW), Radon/Radon Progeny-in-Air (RAP), and CERCLA (Superfund), also known as the Contract Laboratory Program (CLP). Within each regulatory program, there are various categories. These categories contain chemical analytes with similar chemical and physical properties that are analyzed using similar technologies. Laboratories pay accreditation fees based upon the categories for which they apply for certification.

These amendments will establish the OQA's Clean Air Program (CAP) as a new regulatory program, and will establish four categories of analytes and technologies within the program. These amendments will also incorporate analytical methods by reference, and will apply existing laboratory certification criteria to laboratories that analyze air samples.

These amendments propose to include air source (stack) emissions testing methods in the OQA's Clean Air Program, pursuant to The New Jersey Air Pollution Control Act, N.J.S.A. 26:2C-1. These methods are used to determine compliance with emission limits established in a facility's permit to operate, which may include operating permits, pre-construction permits, and certificates to operate. Presently, the Department's Division of Air Quality Permitting requires that prior to an air source emissions test, the operator submit a sampling and analysis plan for approval, in accordance with N.J.S.A. 26:2C-9.2.5. In the vast majority of instances, the proposed and accepted methods come from those promulgated by the United States Environmental Protection Agency (USEPA) Emissions Measurement Center (EMC), found at 40 CFR Part 51, Appendix M; Part 60, Appendix A; Part 61, Appendix B; and Part 63, Appendix A. These EMC methods include a wide variety of analytical procedures for the analysis of organic and inorganic analytes in emissions samples. These will be the Department Sanctioned Analytical Methods (DSAMs) for air source emissions testing that will be incorporated by reference in these amendments.

The Department's Division of Air Quality Permitting, Bureau of Technical Services (BTS) observes a large percentage of the required air source emission sampling, in accordance with N.J.A.C. 7:27-1.31. This allows the BTS to provide the necessary quality assurance checks for these sampling activities. Some of these air samples are analyzed immediately at the testing site. Typically, this involves pumping the air directly into an analyzer. For these samples, the BTS also performs the required quality assurance checks for the analysis. However, a significant portion of these emissions tests require that the air sample be collected and sent to a laboratory that has the capacity for a wider variety of more complicated analyses, using more sophisticated instrumentation. Although these laboratories may be certified by New Jersey or other states for

the analysis of drinking water, wastewater, or soils, they are not presently subject to certification requirements for air sample handling, preparation, processing, analysis, data validation, or data reporting.

While these laboratories that perform air analyses are not subject to on-site quality assurance assessments, they are nevertheless subject to some quality assurance checks on the data they supply to the State. The BTS routinely orders "blind" audit materials from the USEPA and utilizes them as part of their testing program. These "blind" audit materials are air samples that have been intentionally loaded with known amounts of pollutants. The laboratories must analyze these samples without knowing the concentrations of the pollutants. The results of these analyses are compared to the known concentration values as a test of the laboratory's accuracy. The laboratories are also required to submit complete data packages, which allows the BTS to reconstruct the analytical results from the raw laboratory data. Still, approximately 20% of the submitted reports contain data that does not meet the minimum quality criteria. A probable reason for such extensive submission of inadequate data is that presently, there are no requirements for the certification of these laboratories. These amendments will help to ensure the quality of the data submitted to the Department and provide mechanisms to address problems.

In addition, these amendments propose to include two ambient air sampling and analysis methods in the OQA's Clean Air Program. These methods are being included in the OQA's Clean Air Program because of the similarities between these ambient air analysis methods and the air source emission testing methods with regards to the nature of the samples and the sampling and analysis techniques.

In some circumstances, groundwater contamination has been found to affect the quality of air inside New Jersey buildings. In these cases, the Department may require air sampling to accomplish the site remediation required by The Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., The Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., The Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and The Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq. These air samples are analyzed using the USEPA Toxic Organics (TO) methods TO-15 and TO-17. These two methods are found in the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA document, EPA/625/R-96/010b), and will be incorporated by reference in these amendments. In the future, additional selected methods from this Compendium may be added to the Office of Quality Assurance's Clean Air Program.

As is the case with the air source emission tests, indoor air samples are sent to laboratories for which the State does not perform on-site quality assessments for these methods. This is because the State does not presently have a certification program for air analysis. The Bureau of Environmental Monitoring and Quality Assurance (BEMQA), which is within the Department's Division of Publicly Funded Site Remediation, performs validation checks on all submitted data packages. However, BEMQA has no control over the quality assurance and quality control practices of the laboratories as the samples are being analyzed. It is anticipated that establishing certification requirements for these methods will reduce the incidence of rejection of data by BEMQA.

The types of atmospheric pollutants measured by the USEPA EMC and the USEPA TO methods include, but are not limited to: volatile organic compounds, sulfur dioxide, carbon monoxide, carbon dioxide, nitrogen oxides, particulate matter, mercury, lead, and arsenic. The

types of analytical instrumentation used for air analyses are in most cases nearly identical to those used for the analysis of drinking water, water pollution, or solid waste. The most significant differences in the analyses lie in sample collection, and in some cases, a modification to the analytical instrument for the introduction of gaseous samples into it.

As proposed, these amendments will require certified laboratories to be subject to on-site audits of sample handling, preparation, analysis, data manipulation, and data reporting for air. Other facets of the laboratories will be subject to in-house audits. These include, but are not limited to, the quality systems plan, standard operating procedures, credentials of supervisors and analysts, demonstrations of capability, method detection limit studies, and performance testing results. The overall process of auditing will be based upon existing procedures in N.J.A.C. 7:18 for the auditing of laboratories that analyze for environmental pollutants in water and soil matrices.

Temporary Approval

Laboratories that currently analyze air samples and submit data to the State of New Jersey will be granted temporary approval to continue analysis work, provided they meet the requirements set forth in proposed amendment N.J.A.C. 7:18-2.6(c). This rule allows for a 180 day grace period to submit an administratively complete application to the Department after the operative date of the new rules, and a one year period after submission of the application to satisfy all other requirements for certification. Laboratories submitting a complete application will be granted temporary certification until the requirements for certification are met, or until the one year period expires.

Proficiency Testing

Laboratories will be required to participate in a proficiency testing (PT) program to receive and maintain accreditation for the analysis of air samples. The type of PT sample required for an individual parameter will be dependent upon the method of analysis and the physical state of the sample prior to analysis. For the purposes of the air sample analysis PT program, air samples may be divided into two types.

The first type of air sample is a sample that becomes an aqueous solution prior to analysis. For example, most of the methods for the analysis of emissions of toxic metals require that the air sample be drawn through a filter to capture the airborne metals. The metals are then released into solution by a process known as "digestion", where the filter is placed into an acidic solution and heated for a period of time. The resulting solution is then transferred to a different container and diluted, resulting in a dilute, acidic solution containing the metal analytes. At this point, the analysis becomes nearly identical to a drinking water analysis for the metal. For this type of sample, the laboratories will be required to analyze PT samples consisting of the analyte in an aqueous solution, using the techniques specified in the analytical method. For these types of parameters, the requirements for laboratories to analyze and pass PT samples will be identical to those specified for chemical testing in N.J.A.C. 7:18-2.13(i). In many instances, commercially available drinking water PT samples will be well suited to serve as PTs for air analysis. These will be evaluated on a case by case basis.

The second type of sample is one that remains in the gas phase. For example, one method of determining volatile organic compound (VOC) emissions is to collect a gas phase emission sample into an evacuated sampling canister. The gas phase sample is then introduced into the analytical instrument at the laboratory. An alternative for determining VOCs in air is to draw an air sample through a sorbent tube, which retains the compounds of interest. The

analytes are then thermally desorbed directly into the analytical instrument. No PT samples are presently available for gas phase analytes from an accredited provider. When PT samples for gas phase analytes become available, laboratories will be required to acceptably analyze these samples at the frequency of one per year, in accordance with N.J.A.C. 7:18-2.13(i) for chemical testing.

Categories, Parameters, and Methods

The categories, parameters, and methods that will be offered for certification under the Clean Air Program are listed below:

Category CAP01: Atmospheric Inorganic Parameters, Non-Metals

Analyte	Methods
Carbon dioxide	EPA 3c, 6a, 6b
Carbon monoxide	EPA 10a
Carbon disulfide	EPA 15
Carbonyl sulfide	EPA 15
Fluoride	EPA 13a, 13b, 14a
Hydrogen chloride, Halides, Halogens	EPA 26, 26a
Hydrogen sulfide	EPA 15
Nitrogen	EPA 3c
Nitrogen oxides (NOx)	EPA 7, 7a, 7b, 7c, 7d
Oxygen	EPA 3c
Particulate Matter	EPA 5, 5a, 5b, 5d, 5e, 5f, 5g, 5h, 5i, 17, 201, 201a, 202
Phosphorous	EPA 29
Sulfur	EPA 16

Sulfur (total reduced)	EPA 15a, 16a, 16b
Sulfur dioxide	EPA 6, 6a, 6b
Sulfuric acid	EPA 8

Category CAP02: Atmospheric Inorganic Parameters, Metals

Analyte	Methods
Antimony	EPA 29
Arsenic	EPA 29,108, 108a, 108b, 108c
Barium	EPA 29
Beryllium	EPA 29, 103, 104
Cadmium	EPA 29
Chromium	EPA 29, 306, 306a, 306b
Cobalt	EPA 29
Copper	EPA 29
Lead	EPA 12, 29
Manganese	EPA 29
Mercury	EPA 29, 101, 101a, 102, 105
Nickel	EPA 29
Polonium	EPA 111
Selenium	EPA 29
Silver	EPA 29

Category CAP03: Atmospheric Organic Parameters

Analyte	Methods
Non-methane Organic Compounds	EPA 25, 25c, 25d, 25e

Methane	EPA 3c
Volatile Organic Compounds	EPA 18
Methanol	EPA 308, TO-15, TO-17
2,3,7,8-TCDD	EPA 23
1,2,3,7,8-PeCDD	EPA 23
1,2,3,4,7,8-HxCDD	EPA 23
1,2,3,6,7,8-HXCDD	EPA 23
1,2,3,7,8,9-HxCDD	EPA 23
1,2,3,4,6,7,8-HpCDD	EPA 23
1,2,3,4,6,7,8,9-OCDD	EPA 23
2,3,7,8-TCDF	EPA 23
Carbonyl Sulfide	TO-15
Formaldehyde	TO-15
Phosgene	TO-15
Ethylene Oxide	TO-15
Acetaldehyde (Ethanal)	TO-15
Propylene Oxide	TO-15
Methyl Isocyanate	TO-15
Methyl tert-butyl ether	TO-15, TO-17
Propionaldehyde	TO-15
Chloromethyl methyl ether	TO-15
Acrolein (2-propenal)	TO-15

1,2 Epoxy butane (1,2-butylene oxide)	TO-15
Vinyl acetate	TO-15
1,4-Dioxane (1,4 Diethylene oxide)	TO-15
Bis(chloromethyl) ether	TO-15
Ethyl acrylate	TO-15, TO-17
Methyl methacrylate	TO-15, TO-17
Epichlorohydrin (1-chloro-2,3-epoxy propane)	TO-15
N-nitroso-N-methylurea	TO-15
2-Nitropropane	TO-15
Dimethylcarbamyl chloride	TO-15
N-nitrosodimethylamine	TO-15
Beta-Propiolactone	TO-15
Acrylic acid	TO-15
N,N-Dimethylformamide	TO-15
1,3-Propane sultone	TO-15
Acetophenone	TO-15
Dimethyl Sulfate	TO-15
Bis(2-Chloroethyl)ether	TO-15
Chloroacetic acid	TO-15
Ethyl carbamate (urethane)	TO-15
Acrylamide	TO-15
Isophorone	TO-15

N-nitrosomorpholine	TO-15
Styrene oxide	TO-15
Diethyl sulfate	TO-15
Cresylic acid (cresol isomer mixture)	TO-15
o-Cresol	TO-15
Catechol (o-hydroxyphenol)	TO-15
Phenol	TO-15
Nitrobenzene	TO-15
Methyl ethyl ketone (2-butanone)	TO-15, TO-17
Methyl isobutyl ketone (4-methyl-2-pentanone)	TO-15, TO-17
Methyl chloride (chloromethane)	TO-15
Vinyl chloride (chloroethene)	TO-15
1,3-butadiene	TO-15
Methylbromide (bromomethane)	TO-15
Vinylbromide (bromoethene)	TO-15
Ethyl chloride (chloroethane)	TO-15
Vinylidene chloride (1,1-dichloroethylene)	TO-15
Methylene chloride	TO-15

Allyl chloride (3-chloropropene)	TO-15
Carbon disulfide	TO-15
Ethylidene dichloride (1,1-dichloroethane)	TO-15
Chloroform	TO-15
Hexane	TO-15, TO-17
Methyl chloroform (1,1,1-trichloroethane)	TO-15, TO-17
Carbon tetrachloride	TO-15, TO-17
Benzene	TO-15, TO-17
Ethylene dichloride (1,2-dichloroethane)	TO-15, TO-17
Propylene dichloride (1,2-dichloropropane)	TO-15
2,2,4-Trimethylpentane	TO-15
1,3-Dichloropropene (cis)	TO-15
Toluene	TO-15, TO-17
Trichloroethylene	TO-15
1,1,2-Trichloroethane	TO-15, TO-17
Tetrachloroethylene	TO-15, TO-17
Ethylene dibromide (1,2-dibromoethane)	TO-15
Chlorobenzene	TO-15, TO-17
Ethylbenzene	TO-15, TO-17
Xylenes (isomer & mixtures)	TO-15, TO-17

Styrene	TO-15, TO-17
p-Xylene	TO-15
m-Xylene	TO-15
Bromoform (tribromomethane)	TO-15
1,1,2,2-tetrachloroethane	TO-15, TO-17
o-Xylene	TO-15
1,4-Dichlorobenzene	TO-15
Hexachlorobutadiene	TO-15
1,2,4-Trichlorobenzene	TO-15
Dichlorofluoromethane	TO-15
Trifluoromethane	TO-15
Freon TF	TO-15
1,2-Dichlorotetrafluoroethane	TO-15
trans-1,3-Dichloropropane	TO-15
1,2-Dichlorobenzene	TO-15
1,3-Dichlorobenzene	TO-15
1,3,5-Trimethylbenzene	TO-15, TO-17
1,2,4-Trimethylbenzene	TO-15, TO-17
Cyclohexane	TO-15
n-Heptane	TO-15, TO-17
Bromodichloromethane	TO-15
Trans-1,2,-Dichloroethene	TO-15
4-Ethyltoluene	TO-15

2-Chlorotoluene	TO-15
Diazomethane	TO-15
Ethyleneimine (aziridine)	TO-15
1,1-Dimethylhydrazine	TO-15
1,2-Propyleneimine (2-methylaziridine)	TO-15
Acrylonitrile (2-propenenitrile)	TO-15
Triethylamine	TO-15
Methylhydrazine	TO-15
Acetonitrile (cyanomethane)	TO-15, TO-17
Aniline (aminobenzene)	TO-15, TO-17
N,N-Dimethylaniline	TO-15
Methyl iodide (iodomethane)	TO-15
Chloroprene (2-chloro-1,3-butadiene)	TO-15
Cumene	TO-15
Benzyl chloride (a-chlorotoluene)	TO-15
1,2-Dibromo-3-chloropropane	TO-15
Hexachloroethane	TO-15
n-Butane	TO-17
n-Pentane	TO-17
n-Octane	TO-17
n-Nonane	TO-17

Isopropylbenzene	TO-17
n-Propylbenzene	TO-17
1-Methyl-3-ethylbenzene	TO-17
1-Methyl-4-ethylbenzene	TO-17
Methylstyrene	TO-17
Methyl-2-ethylbenzene	TO-17
n-Decane	TO-17
1,2,3-Trimethylbenzene	TO-17
n-Undecane	TO-17
n-Dodecane	TO-17
Dichloromethane	TO-17
Trichloroethylene	TO-17
1,1,1,2-Tetrachloroethane	TO-17
PCB-1016	TO-17
PCB-1221	TO-17
PCB-1232	TO-17
PCB-1242	TO-17
PCB-1248	TO-17
PCB-1254	TO-17
PCB-1260	TO-17
Methanol	TO-17
Ethanol	TO-17
n-Propanol	TO-17

Isopropanol	TO-17
n-Butanol	TO-17
iso-Butanol	TO-17
Octanol	TO-17
Methylacetate	TO-17
Ethylacetate	TO-17
Propylacetate	TO-17
Isopropylacetate	TO-17
Butylacetate	TO-17
Isobutylacetate	TO-17
t-Butylacetate	TO-17
Methylacetate	TO-17
Methoxyethanol	TO-17
Ethoxyethanol	TO-17
Butoxyethanol	TO-17
Methoxypropanol	TO-17
Methoxyethylacetate	TO-17
Ethoxyethylacetate	TO-17
Butoxyethylacetate	TO-17
Acetone	TO-17
n-Butanal	TO-17
Cyclohexanone	TO-17
3,5,5-Trimethylcyclohex-2-enone	TO-17

Furfural	TO-17
Acrylonitrile	TO-17
Propionitrile	TO-17
Maleic anhydride	TO-17
Pyridine	TO-17
Nitrobenzene	TO-17
Acetic acid	TO-17
Phenol	TO-17

Category CAP04: Atmospheric Parameters, Miscellaneous

Analyte	Methods
Surface Coatings	EPA 24
Inks and Coatings	EPA 24a
Radionuclides	EPA 114
Radon-222	EPA 115

The following is a description of the proposed amendments:

Subchapter 1, General Provisions, contains general provisions describing the scope, purposes and basic requirements of the laboratory certification program, and includes definitions and terms used in N.J.A.C. 7:18. This subchapter also incorporates-by-reference the Department Sanctioned Analytical Methods (DSAMs) that are used to conduct environmental measurements for the various Department programs.

Subchapter 1 is proposed to be amended at N.J.A.C. 7:18-1.1(c) to include The Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., under “Scope and Authority”.

N.J.A.C. 7:18-1.5(a) is proposed to be amended to incorporate by reference the analytical methods found in 40 CFR Part 51, Appendix M; Part 60 Appendix A; Part 61, Appendix B; and Part 63, Appendix A, and the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA document EPA/625/R-96/010b). These are the methods that will be offered to laboratories for air analysis certification.

The "Definitions" at N.J.A.C. 7:18-1.7 is proposed to add definitions of terms employed in air analysis methods. They are: Air Sampling Train, Clean Air Program, Impinger, and Quality Control Check Sample.

Subchapter 2, Program Procedures and Requirements, establishes procedures and requirements for the laboratory certification program. This subchapter outlines the work that certified environmental laboratories can perform, and prohibits other laboratories from performing this work. It outlines the procedure for becoming a certified environmental laboratory; requirements that a laboratory must meet to become and remain a certified environmental laboratory; procedures for modifying, suspending or revoking a certification; and the test methods and procedures available for certification. This subchapter also describes the categories for certification.

The Subchapter is proposed to be amended at N.J.A.C. 7:18-2.4 to include "Clean Air Program" under "Categories for Certification". "Clean Air Program" will be the name of the program that offers certification to laboratories for the analysis of air samples.

A subsection is proposed at 7:18-2.4(h) that gives the four categories for certification under "Clean Air Program."

N.J.A.C. 7:18-2.4 is proposed to be amended to include the Clean Air Program under Table 2.1, "Organization of Subchapters 3 through 9".

N.J.A.C. 7:18-2.6(c) is proposed to be amended to allow laboratories applying for certification in OQA's Clean Air Program categories to receive temporary approval to analyze regulatory samples during the rule phase-in period. In addition, language allowing temporary approval for laboratories applying for certification in the solid and hazardous waste program and the contract laboratory program will be removed, since the rule phase-in period for these programs has expired.

N.J.A.C. 7:18-2.6(c)3 is proposed to be amended to include the OQA's Clean Air Program categories under the conditions for forfeiture of temporary approval.

N.J.A.C. 7:18-2.9 is proposed to be amended to include the OQA's Clean Air Program categories under the required application fees for certification. The fees for the Clean Air Program categories are based upon the fees for comparable categories under the Safe Drinking Water, Water Pollution prevention, and Solid/Hazardous Waste Programs. The categories are comparable due to the similarities in the chemical compounds being analyzed and the types of instrumentation used for the analyses.

A new subsection at N.J.A.C. 7:18-2.9(h) is proposed to waive the modification fee of $236 required at N.J.A.C. 7:18-2.9(b) for any existing certified laboratory electing to add categories in OQA's Clean Air Program to its existing certification. By waiving the modification fee for those laboratories already certified in a DSAM in the applicable categories, the laboratory can obtain certification without paying any additional fees.

N.J.A.C. 7:18-2.10(b) is proposed to be amended to include OQA's Clean Air Program categories under the education and experience requirements for laboratory supervisors. Due to the fundamental similarities between the analytical methods for air testing and those used for soil and water analyses, the requirements for laboratory supervisors in the Clean Air Program

categories will be identical to the existing requirements for chemical testing laboratory supervisors.

N.J.A.C. 7:18-2.15(b) is proposed to be amended to include some, but not all, Clean Air Program categories under cancellation, suspension, or revocation of certification for failure to meet proficiency study criteria. The Clean Air Program categories included in this subsection will be those that contain analytes for which proficiency testing samples are likely to become available.

Subchapter 5 - Chemical testing, establishes requirements for laboratories performing chemical testing of regulatory samples for the Drinking Water, Water Pollution, Solid/Hazardous Waste, and the CERCLA/CLP Programs.

The Subchapter is proposed to be amended at N.J.A.C. 7:18-5.1 to include the Clean Air Program categories under “Scope”.

N.J.A.C. 7:18-5.2(a)19 is proposed to be amended to require that the laboratories have documented procedures in place for the calibration and verification of air sampling equipment, if this equipment is used or supplied by the laboratory.

N.J.A.C. 7:18-5.2(a)20 is proposed to be amended to require the use of EPA approved canisters when using canisters for air sampling. The EPA methods proposed for incorporation by reference at N.J.A.C. 7:18-1.5(a)5, section 8.4 contain those methodologies.

N.J.A.C. 7:18-5.3(c) is proposed to be amended to state that any laboratory that applies for certification for a method under the Clean Air Program that requires additional analytical method to be performed as part of the analysis must also apply for certification for the additional methods.

N.J.A.C. 7:18-5.5(c)5 is proposed to be amended to include atmospheric inorganic metals under the policies for calibration of computer-controlled equipment used in the analysis of metal parameters.

N.J.A.C. 7:18-5.5(c)6 is proposed to be amended to include the Clean Air Program categories under the requirements for the frequency of blank measurements.

N.J.A.C. 7:18-5.5(c)7 is proposed to be amended to include the applicable Clean Air Program categories under the requirements for the analysis of quality control check samples.

7:18-5.5(c)7iii is proposed to be added to require the use of calibration solutions as QC samples in cases where spiking solutions are not available.

N.J.A.C. 7:18-5.5(c)8 is proposed to be amended to include the applicable Clean Air Program categories under the requirements for the analysis of matrix spikes and matrix spike duplicates.

N.J.A.C. 7:18-5.5(c)8.iv is proposed to be amended to exclude those air samples that are introduced directly into an analytical instrument from sampling canisters, sorbent tubes, and polyurethane foam (PUF) traps from the requirements for matrix spike and matrix spike duplicates.

N.J.A.C. 7:18-5.5(c)9 is proposed to be amended to include the applicable Clean Air Program categories under the requirements for the calculation and documentation of standard deviations for all applicable measurements.

N.J.A.C. 7:18-5.5(c)10.i is proposed to be amended to describe the requirements for determining method detection limits for analyses under the Clean Air Program categories.

A subsection is proposed at N.J.A.C. 7:18-5.5(c)14 requiring the separation of multiple sections of air sampling trains submitted to a laboratory and their separate analysis.

N.J.A.C. 7:18-5.6(l) is proposed to be amended to include the Clean Air Program under the requirements for analysis reporting.

N.J.A.C. 7:18-5.6(n) is proposed to be added, requiring that laboratories not report results in the Clean Air Program that are below clean canister certification levels, artifact levels for sorbent tubes, or any other blank level as specified in the test method.

Subchapter 9, Sample Requirements, establishes requirements for the handling and preservation of regulatory samples for microbiological, inorganic, organic, radiochemical, and acute toxicity testing.

N.J.A.C. 7:18-9.3(a)8 is proposed to be added to establish the requirements for the handling and preservation of air samples.

N.J.A.C. 7:18-9.4(h) to proposed to be added to specify the requirements for containers, preservation techniques, and holding times for air samples.

Social Impact

The expansion of the laboratory certification program with the establishment of certification criteria for laboratories that analyze air samples will help ensure that the Department will be supplied with high quality, scientifically defensible data for environmental management decision making involving air quality. This will allow the Department to administer more effective air quality programs. The citizens of New Jersey will benefit from this program, since the regulatory decisions made by the Department are designed to protect the health of the public and the environment. This program will help ensure that laboratories do not report fraudulent or inaccurate data, which impairs the integrity of the Department's management decisions. Certified laboratories will benefit from this program, since laboratories will be impeded from taking unfair

advantages in sample throughput by not practicing effective quality control procedures or reporting fraudulent data.

Economic Impact

Positive economic impacts will result from the establishment of certification criteria for laboratories that analyze air samples. Significant costs are incurred each year by the Department and by the regulated community from the environmental decision making process. By ensuring the use of scientifically sound and accurate data, the effectiveness of these expenditures on compliance efforts will be improved. Ultimately, the effectiveness of the expenditures by the public and private sector on improving air quality will be enhanced.

By establishing certification criteria for laboratories that analyze air samples, there will be less need to reject environmental analytical data because of improper or inadequate analytical techniques or procedures. This will allow more funds, used by the Department and New Jersey citizens to support environmental analyses, to be spent obtaining valid analytical data.

Laboratories will incur the costs of fees for certification, and the travel costs associated with sending State auditors to out of state laboratories for an on-site inspection. Since state-certified laboratories that analyze drinking water, wastewater, and solid and hazardous wastes already incur these costs, it is believed that laboratories that analyze air samples can likewise absorb these costs and survive as a successful business enterprise. It is likely that many of these laboratories already incur some certification costs from New Jersey or other states for other types of analyses, such as drinking water. For an in-state laboratory that is already certified by the Department for other types of analyses and seeks certification for one or two common air testing methods, the cost of certification may be $236 for adding a Clean Air Program category to their existing certification. The fees for the Clean Air Program categories are based upon the fees for

comparable categories under the Safe Drinking Water, Water Pollution prevention, and Solid/Hazardous Waste Programs. The categories are comparable due to the similarities in the chemical compounds being analyzed and the types of instrumentation used for the analyses.

For an out of state laboratory that is not yet part of the Department's certification program and seeks certification for a wide range of air sample analyses, the costs of certification fees for Clean Air Program categories, air travel, lodging, and per diem costs for State auditors may total $3000.

The USEPA Toxic Organics (TO) methods for analysis of indoor air samples are already available for certification under one of the Solid/Hazardous Waste categories, SHW07. This category also includes other compounds that are analyzed in a soil matrix. A laboratory that is currently certified for the USEPA TO methods and the methods used for analysis of the soil matrix must pay a single category fee of $236. These amendments propose moving the USEPA TO methods to a new category within the OQA's Clean Air Program. If the laboratory wishes to maintain certification in the Solid/Hazardous Waste category for the compounds in a soil matrix, as well as maintain certification for the USEPA TO methods, the laboratory must incur an additional fee of $236 for the CAP category.

By waiving the modification fees for laboratories seeking certification for the air sample DSAMs, the Department is minimizing the costs to laboratories already participating in the certification program. Also, certified and competent laboratories should realize some economic benefit from not having to compete against non-certified laboratories.

Environmental Impact

Important positive environmental impacts will result from a laboratory certification program for air analysis. Since data submitted to the State will be of known and defensible quality, the Department will more reliably be able to identify the members of the regulated community in need of undertaking compliance efforts. This will allow for a more accurate assessment of air quality and a more effective environmental management program. The Department's air permitting, enforcement, research, and technical programs all depend on obtaining reliable, accurate, precise, high-quality data. The adoption of this program will ensure that the Department obtains data that meets these standards.

Federal Standards Analysis

Executive Order No. 27(1994) and N.J.S.A 52:14B-1 et seq. require that administrative agencies which adopt, readopt, or amend State regulations that exceed any Federal standards or requirements, include in the rulemaking document, a comparison with Federal law.

The existing rules establish a certification program for laboratories performing environmental analyses, and establish the administrative procedures to be followed by certified environmental laboratories and by laboratories seeking to become certified environmental laboratories. The Federal government does not administer a corresponding laboratory certification program, and has no law that corresponds to this aspect of either the current rules or the proposed amendments. Also, these proposed amendments do not establish requirements for performance of the analytical methods that exceed either the requirements of the method or the requirements established by the USEPA sponsored National Environmental Laboratory Certification Program (NELAP). Therefore, a federal standards analysis is not required. The NELAP requirements are contained in the "National Environmental Laboratory Accreditation Conference Standards, EPA/600/R-01/100" which can be obtained from http:

http://www.epa.gov/ttn/nelac or by contacting the USEPA, Office of Research and Development, 3210 Triangle Park, NC, 27711, (919) 541-1120.

Jobs Impact

In developing the existing rules, the Department minimized the cost of compliance (and thereby minimized any possible adverse effect on employment) as much as possible while still protecting the public health and safety and the environment. Laboratories that apply for certification for the analysis of air samples most likely already employ personnel to perform these analyses. The proposed amendments are not expected to have an impact upon the creation or loss of jobs in this State.

Agricultural Industry Impact

Pursuant to N.J.S.A. 52:14B-4(a)2, the Department has evaluated this rulemaking to determine the nature and extent of the impact of the proposed amendments on the agricultural industry. The current rules have not had an impact upon agriculture in New Jersey. The proposed amendments are not expected to have an impact upon the State's agriculture industry.

Regulatory Flexibility Analysis

Although the Department's laboratory certification program affects approximately 800 businesses that operate certified environmental laboratories or laboratories that are seeking certification, only a small percentage of these laboratories will be affected by these proposed amendments. Most of these businesses are "small businesses" as defined in the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq. The existing rules were designed to minimize adverse economic impacts on all affected businesses while continuing to meet the need for accurate, precise and reliable data. The rules establish performance rather than design standards, whenever feasible, for all affected laboratories. Instead of exempting small businesses

specifically from any part of the rule, the Department has recognized in developing the entire rule that the majority of affected laboratories are small businesses. The proposed amendments will impose some additional reporting, record keeping, and compliance requirements on small businesses. However, these businesses will already have the necessary personnel in place to comply with these requirements, and will not need to hire additional professionals for these purposes.

Smart Growth Impact

Executive Order No.4 (2002) requires State agencies to describe the impact of the proposed rule on the achievement of smart growth and implementation of the New Jersey State Development and Redevelopment Plan (State Plan). The Department has evaluated this rulemaking to determine the nature and extent of the proposed amendments' impact on smart growth and the implementation of the State Plan. The proposed amendments to implement the Clean Air Program for laboratory certification do not involve land use policies or infrastructure development and therefore, will not have any impact on the achievement of smart growth. As to the implementation of the State Plan, the proposed amendments are intended to promote and facilitate the reporting of accurate, reliable, and defensible data to the State for the protection of public and environmental health, which is one of the overall goals of the State plan.

Full text of the proposed amendments follows (additions indicated in underlined boldface **thus**; deletions indicated in brackets [thus]):

Subchapter 1. General Provisions

7:18-1.1 Scope and authority

(a)-(b) (No change.)

(c) This chapter is adopted pursuant to the following statutes:

1.-5. (No change.)

6. The Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq.; [and]

7. The Private Well Testing Act, N.J.S.A. 58:12A-26 et seq.**; and**

8. The Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq.

7:18-1.5 Incorporation by reference

(a) The following regulations promulgated by the USEPA, together with all amendments and supplements, are incorporated by reference into this chapter:

1. (No change.)

2. The "Guidelines Establishing Test Procedures for the Analysis of Pollutants," 40 CFR 136; [and]

3. The methods listed in Subchapter 1, Solid Waste, 40 CFR 260, 261[.] **;**

4. The methods for the analysis of airborne emissions, listed in 40 CFR Part 51, Appendix M; Part 60, Appendix A; Part 61, Appendix B; and Part 63, Appendix A; and

5. The Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA document EPA/625/R-96/010b).

b) (No change.)

7:18-1.7 Definitions

The following words and terms, when used in this chapter, shall have the following meanings. If a definition in this section differs from the corresponding definition in any regulation or other document incorporated by reference under N.J.A.C. 7:18-1.5, the definition in the document incorporated by reference shall control.

...

"Air Sampling Train" means an air sampling device consisting of an intake nozzle, filters, a series of impingers, valves, sampling pump, vacuum gauge, temperature sensor, and flow sensor.

...

"Clean Air Program" means the Department's program implementing the certification requirements for laboratories that analyze air samples.

...

"Impinger" means a vessel used for air sampling in which air is drawn through a solution that captures the analyte and allows the remaining air to escape.

...

"Quality control check sample" means an uncontaminated sample matrix spiked with known amounts of analytes from a source independent from the calibration standards. It is generally used to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

Subchapter 2. Program Procedures and Requirements

7:18-2.4 Categories for certification

(a) An applicant shall apply for certification to perform methods for use in one or more of the following regulatory programs:

1.-5. (No change.)

6. Clean Air Program

(b)- (g) (No change.)

(h) The parameters for which a laboratory may be certified to perform sample analysis and to report results for the purposes of determining compliance with the Clean Air Program are organized within the following categories:

1. Category CAP01: Atmospheric Inorganic Parameters, Non- Metals

2. Category CAP02: Atmospheric Inorganic Parameters, Metals

3. Category CAP03: Atmospheric Organic Parameters

4. Category CAP04: Atmospheric Parameters, Miscellaneous

[(h)] **(i)** Table 2.1 illustrates the organization of subchapters 3 through 9 (N.J.A.C. 7:18-3 through 9.)

TABLE 2.1 Organization of Subchapters 3 through 9

SUB-CHAPTER	TITLE	CATEGORIES
3	General Laboratory Facilities & Equipment	All categories except SDW03, WPP03, SHW03
4	Microbiology	SDW01, WPP01, SHW01
5	Chemistry	SDW02, SDW04-SDW06, WPP02, WPP04-WPP07, SHW02, SHW04-SHW12, CLP01-CLP07**,** **CAP01-04**
6	Radiochemistry & Radon/Radon Progeny-in-Air	SDW07, SDW08, WPP09, WPP10, RAP01
7	Toxicity Testing	WPP08
8	Analyze Immediately	SDW03, WPP03, SHW03

9	Sample Requirements	All

[(i)] **(j)** An out-of-State laboratory, which has received NELAP accreditation from a State that has received NELAP recognition, shall be eligible for reciprocal accreditation to perform environmental sample analyses in accordance with (a) through [(h)] **(i)** above, provided:

(1)-(3) (No change.)

[(j)]**(k)** If upon review of the documents listed in [(i)] **(j)**2 and 3 above, the Department determines that the methods used by the out-of-State laboratory are equivalent to the requirements of this chapter, the Department shall not require an on-site survey by its inspectors and certification shall be granted after the assessed certification fees are paid (See N.J.A.C. 7:18-2.9, Fees.)

[(k)]**(l)** If, upon review of the documents listed in [(i)] **(j)**2 and 3 above, the Department is unable to determine that the out-of-state laboratory has met the requirements of this chapter, then the Department shall contact the NELAP-primary accrediting authority and request that it conduct an on-site inspection of the laboratory.

7:18-2.6 Conditions for the granting of certification

(a)-(b) (No change.)

(c) For Categories [SHW01 through SHW12 and CLP01 through CLP07] **CAP01 through CAP04**, a phase-in period may be available during which a laboratory may continue to analyze regulatory samples by methods not included in the laboratory certification program prior to adoption of **the Clean Air Program in** this chapter. To qualify for the phase-in period, the laboratory shall satisfy the requirements listed in (c)1 and 2 below.

1. By (date that is 180 days after the operative date of these [new rules] **Clean Air Program amendments**, the laboratory shall submit an administratively complete application to the Department pursuant to N.J.A.C. 7:18-2.5. When the Department determines that the application is administratively complete, it will provide the laboratory with temporary approval to analyze regulatory samples. The laboratory may continue analyzing regulatory samples while the temporary approval is in effect. The approval shall remain in effect until one of the following occurs:

   i.-iii. (No change.)

2. (No change.)

3. If a laboratory fails to submit an administratively complete application within the time allotted under (c)1 above, or if the temporary approval expires under (c)1i or 1iii above, the phase-in period is forfeited. The laboratory shall discontinue all regulatory sampling and analysis for Categories [SHW01 through SHW12, and CLP01 through CLP07] **CAP01 through CAP04**. Thereafter the laboratory shall follow the regular procedure for obtaining certification in accordance with N.J.A.C. 7:18-2.5.

7:18-2.9 Fees

(a) (No change.)

(b) The fee schedule is set forth below. To calculate the fee for a given service, add the fee for the administrative activity and the fee for each category affected by the application. For example, if a laboratory seeks an initial certification in category

SDW01, the fee would be the sum of $825 (the administrative activity fee) and $206 (the category fee), for a total of $1031.

ENVIRONMENTAL LABORATORY APPLICATION, CHANGE-OF-STATUS, AND CERTIFICATION CATEGORIES		FEES

I.-VI. (No change.)

VII. Clean Air Program Categories (CAP01-CAP04)

CAP01	**Atmospheric Inorganic Parameters, Non-Metals**	**$ 118**
CAP02	**Atmospheric Inorganic Parameters, Metals**	**$ 147**
CAP03	**Atmospheric Organic Parameters**	**$ 236**
CAP04	**Atmospheric Parameters, Miscellaneous**	**$ 118**

(c)-(g) (No change.)

(h) The modification fee of $236 specified at N.J.A.C. 7:18-2.9(b) does not apply to those laboratories that modify their existing certification in order to obtain certification in categories in the Clean Air Program (CAP) during the rule phase in period specified at N.J.A.C. 7:18-2.6(c).

7:18-2.10 ENVIRONMENTAL LABORATORY PERSONNEL REQUIREMENTS

(a) (No change.)

(b) No environmental laboratory shall be certified to perform analyses in a Category unless the supervisor and operating personnel (where so indicated) meet the following requirements:

1.-2. (No change.)

3. For Chemical Testing in Categories: [DW2] **SDW02**, Inorganic Parameters Including Sodium and Calcium; WPP02, Inorganic Parameters, Nutrients & Demand (except those listed in (b)2 above), **CAP01, Atmospheric Inorganic Parameters, Non-Metals; and CAP04, Atmospheric Parameters, Miscellaneous,** the supervisor shall meet the requirements of at least one of the qualification levels listed below:

Qualification Level	Degree	Years of Experience Chemical Analysis and/or Training
A	BA/BS [1]	1[2]
B	AA[1]	3[2]
C	None	5[2]

[1] Degree in a chemical, physical, biological, or environmental science from an accredited institution.

[2] Have at least one year of laboratory experience in the analysis of drinking water, water pollution, [or] solid hazardous waste samples[.]**, or air samples.**

4. For Chemical Testing in Categories: SDW04, Inorganic Parameters, Metals; WPP04, Inorganic Parameters, Metals; SHW04, Inorganic Parameters, Metals; **CAP02, Atmospheric Inorganic Parameters, Metals,** SHW09,

Miscellaneous Parameters, and SHW10, Facility Specific Methods, the supervisor shall meet the requirements of at least one of the qualification levels listed below:

Qualification Level	Degree	Years of Experience Chemical Analysis and/or Training
A	[3] BA/BS [1]	1[2]
B	AA[1]	3[2]
C	None	5[3]

[1] Degree in a chemical, physical, biological, or environmental science from an accredited institution.

[2] At least one year of laboratory experience in the analysis of drinking water, water pollution, [or] solid hazardous waste samples[;]**, or air samples;** and have six months experience in one or more instrumental techniques for the determination of metals, minerals (asbestos), metal ions, or anions, or have completed a formal training course in the operation of one or more of those instruments.

[3] Same as footnote 2 above except that 3 years of laboratory experience in the analysis of drinking water, water pollution, [or] solid hazardous waste samples**, or air samples** is required.

5.-6. (No change.)

7. For Chemical Testing in Categories: **CAP03, Atmospheric Organic Parameters;** SDW05, Organic Parameters, Chromatography; SDW06, Organic Parameters, Chromatography/Mass Spectrometry; WPP05, Organic Parameters, Chromatography; WPP06, Organic Parameters, Chromatography/Mass Spectrometry; WPP07, Individual Pesticides (GC, GC/MS, TLC); SHW05, Organic Parameters, Preparation & Screening; SHW06, Organic Parameters, Chromatography; SHW07, Organic Parameters, Chromatography/Mass Spectrometry; SHW08, Polychlorinated Dibenzo-p-dioxins and Polychlorinated

Dibenzofurans; SHW09, Miscellaneous Parameters;, SHW10, Facility Specific Parameters; SHW11, Incinerator Emissions; and SHW12, Immunoassay, the supervisor shall meet the requirements of at least one of the qualification levels listed below:

Qualification Level	Degree	Years of Experience Chemical Analysis and/or Training
A	[3] BA/BS [1]	1[2]
B	AA[1]	3[2]
C	None	5[3]

[1] Degree in a chemical, physical, biological, or environmental science from an accredited institution.

[2] Have at least one year of laboratory experience in chemical testing of drinking water, water pollution, [or] solid hazardous waste samples[;]**, or air samples;** and have six months experience in the instrumental technique (GC, LC, GC/MS, or LC/MS) being practiced for the analysis of drinking water, water pollution**,** [or] solid/hazardous waste samples[.]**, or air samples.**

[3] Same as footnote 2 above except that 3 years of laboratory experience in chemical testing of drinking water, water pollution**,** [or] solid/hazardous waste samples[.]**, or air samples** is required.

8.-14. (No change.)

7:18-2.15 Cancellation, suspension or revocation of certification

(a) (No change.)

(b) The Department may suspend a certified environmental laboratory's certification for any one or more of the grounds listed below. Grounds for suspension include the following:

1. – 2. (No change.)

3. For all Categories, except those in Radiochemical Testing, Radon/ Radon Progeny-in-Air, or Categories SDW05, SDW06, WPP05, WPP06, WPP07, SHW05, SHW06, SHW07, SHW08, SHW09, SHW12, CLP02, CLP03, CLP05, [and] CLP07, **CAP02, and CAP03,** failing to acceptably analyze all samples for any one parameter in two consecutive proficiency studies. This failure is grounds for suspension in the parameter;

4. For Categories SDW05, SDW06, WPP05, WPP06, WPP07, SHW05, SHW06, SHW07, SHW08, SHW09, SHW12, CLP02, CLP03, CLP05, [and] CLP07, **CAP02, and CAP03,** failing to acceptably analyze all samples for any one parameter in two consecutive proficiency studies. This failure is grounds for suspension in the method used to analyze the parameter in question;

5. – 9. (No change.)

(c) - (f) (No change.)

Subchapter 5. Chemical Testing

7:18-5.1 Scope

(a) This subchapter applies to certified environmental laboratories when performing chemical testing on regulatory samples, and to other laboratories performing chemical testing on PE samples to become certified. This subchapter applies to chemical testing for parameters in the following categories:

1.-4. (No change.)

5. Clean Air Program:

i. Category CAP01: Atmospheric Inorganic

Parameters, Non-Metals

ii. Category CAP02: Atmospheric Inorganic Parameters, Metals

iii. Category CAP03: Atmospheric Organic Parameters

iv. Category CAP04: Atmospheric Parameters, Miscellaneous

7:18-5.2 Requirements for Environmental Laboratory Equipment and Instruments

(a) 1.-18. (No change.)

19. The laboratory shall have documented procedures for the calibration and verification of air sampling equipment such as pumps, meter boxes, critical orifices, flow measurement devices and continuous analyzers, if this equipment is used or supplied by the laboratory.

20. All air sampling canisters shall be internally passivated by the SUMMA electropolish process, as set forth in the methodologies referenced at N.J.A.C. 7:18-1.5(a)5, or other EPA approved processes.

7:18-5.3 Required Use of DSAMS

(a)-(b) (No change.)

(c) If a laboratory applies for certification for an analytical method under the Clean Air Program that requires other analytical methods to be performed as part of the analysis, the laboratory shall also apply for certification for all of the required methods.

7:18-5.5 Requirements for Quality Assurance/Quality Control Program

(a)-(b) (No change.)

(c) A laboratory performing chemical testing shall conduct the quality control checks specified in the applicable DSAMs, and the following additional checks:

1.-4. (No change)

5. The laboratory shall prepare calibration curves used in the analysis of metal parameters in Categories SDW02, SDW04, WPP02, WPP04, SHW04, [and] SHW09, **and CAP02.** [The laboratory shall follow the requirements for calibration curves in 4 above, except that a minimum of one reagent blank and three standards are required.] When the laboratory uses computer-controlled equipment, **the laboratory shall follow the requirements for calibration curves in 4 above, except that a minimum of one reagent blank and three standards shall be required, and** the laboratory shall follow the manufacturer's instructions for calibrating the instrument and shall verify the calibration curve with two calibration check standards, one at the low end of the concentration range and the other at the high end;

6. The laboratory shall analyze blanks at the frequencies required by the applicable DSAM[;]**. For methods used in categories CAP01, CAP02, and CAP03 that do not address method blank requirements, method blanks shall be performed at a frequency of at least 1 per batch of 20 environmental samples or less per sample preparation method, or at least once each day of instrument operation, whichever is more frequent. If the method blank result is greater than the detection limit and contributes greater than 10% of the total amount of analyte**

found in the sample, the source of the contamination must be investigated and measures taken to eliminate the source of contamination. If contamination is found, the data shall be qualified in the report;

7. For parameters in Categories SDW02, SDW04, WPP02, WPP04, SHW04**,** [and] SHW9, **CAP10, CAP02, and CAP03,** the laboratory shall conduct quality control (QC) check sample analyses to verify the accuracy of the analytical system for the parameter. For each QC check sample analysis, the laboratory shall record the results of the analysis, the date on which the verification analysis was performed, and the method of verification. The laboratory shall have the analyst who performed the analysis sign the record.

i. and ii. (No change)

iii. For categories CAP01, CAP02, and CAP03, if a spiking solution is not available, a calibration solution, whose concentration approximates that of the samples, shall be included in each batch and with each lot of media. If a calibration solution must be used for the QC sample, the client will be notified prior to the start of analysis. The concentration of the QC sample shall be relevant to the intended use of the data and either at a regulatory limit or below it.

8. In all cases, the laboratory shall conduct matrix spike and matrix spike duplicate sample analyses to verify the accuracy and precision of the

DSAM for the applicable parameters in the Categories SDW02, SDW04, WPP02, WPP04, SHW04, [and] SHW9[;]**, CAP01, CAP02, and CAP03.**

i.-iii. (No change)

iv. For categories CAP01, CAP02, and CAP03, matrix spikes and matrix spike duplicates are not required for those air samples that are introduced directly into an analytical instrument from SUMMA sampling canisters, sorbent tubes, or polyurethane foam (PUF) traps.

9. In all cases, the laboratory shall calculate and document standard deviations for all applicable measurements conducted in Categories SDW02, SDW04, WPP02, WPP04, SHW04, [and] SHW09, **and CAP01, CAP02, and CAP03,** in accordance with the following requirements:

i. and ii. (No change.)

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.-13. (No change.)

14. Air sampling trains consisting of multiple sections (e.g. filters, sorbent tubes, impingers) that are received intact by the laboratory, shall be separated into "front" and "back" sections. Each section shall be processed and analyzed separately and the analytical results reported separately.

7:18-5.6 Requirements for records and data reporting

(a)-(k) (No change.)

[(m)]

(l) The laboratory shall include at least the following information in reporting analyses for the Solid/Hazardous Waste program**,** [or] the CERCLA-CLP program[:]**, or the Clean Air Program:**

1.-9. (No change.)

(m) (No change.)

(n) Laboratories shall not report analyte concentrations for the Clean Air Program that are below clean canister certification levels, artifact levels for sorbent tubes, or any other blank level as specified in the test method.

Subchapter 9. Sample Requirements

7:18-9.3 REQUIREMENTS FOR INORGANIC, ORGANIC, AND RADIOCHEMICAL PARAMETER SAMPLES

(a) Regulatory samples to be analyzed for one or more inorganic, organic or radiochemical parameters shall be handled and preserved as follows:

1.-7. (No change)

8. Air samples to be analyzed for one or more chemical parameters shall be handled and preserved in accordance with the applicable requirements in Table 9.7 in N.JA.C. 7:18-9.4(h)

(b) (No change.)

7:18-9.4

(a)-(g) (No change)

(h) Air samples shall be handled and preserved in accordance with the requirements of Table 9.7. Table 9.7 includes applicable requirements from the methods for the analysis of airborne emissions, listed in 40 CFR 51M, 60A, 61B, and 63A; and The Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA document EPA/625/R-96/010b). If there is any conflict between Table 9.7 and the USEPA rule or

publication (including any amendments or supplements), the USEPA rule or publication shall control.

TABLE 9.7 REQUIRED CONTAINER, PRESERVATION TECHNIQUES, AND HOLDING TIMES FOR AIR SAMPLES.

Parameter	Preservation	Container	Maximum Holding Time
All Parameters Determined by TO-15	None	EPA-Approved Canister	30 days
All Parameters Determined by TO-17	Cool 4^{o} C in organic solvent-free environment	Stainless steel, glass, or glass lined stainless steel tubes packed with >200 mg solid adsorbent	30 days

Based on consultation with staff, I hereby certify that the above statements, including the Federal Standards Analysis addressing the requirements of Executive Order 27(1994) and the Administrative procedure Act, N.J.S.A. 52:14B-1 et seq., permit the public to understand accurately and plainly the purposes and expected consequences of this proposal. I hereby authorize the proposal.

_____ _____

Date Bradley M. Campbell, Commissioner
Department of Environmental Protection