New Jersey Department of Environmental Protection
Office of Quality Assurance (OQA)

Guidance for Obtaining Low-Flow Purging and Sampling (LFPS) Parameter Certification

Revision 1
April 3, 2024

I. Initial Application Package

Laboratories seeking certification for low-flow purging and sampling (LFPS) parameters (i.e., pH, temperature, dissolved oxygen, turbidity, and conductivity) will need to submit to the New Jersey Department of Environmental Protection, Office of Quality Assurance (NJDEP OQA) a complete initial certification application package, including:

A. Complete certification application forms, including:
   - Part I (Administrative Information),
   - Part II (Personnel Information) including documentation verifying required experience requirements, and
   - Part III (Analytical Testing Parameters);

B. Payment of applicable fees; and

C. A data package encompassing:
   - A draft standard operating procedure (SOP) for all LFPS parameters/methods;
   - Identification of the Proficiency Test (PT) provider and study number and the associated raw data for the PT study performed for each parameter/method/matrix; and
   - The Demonstration of Capability (DOC) or Precision and Accuracy (P/A) study and the associated raw data, if applicable for the parameter/method.

   Please note that the PT study results must be submitted to the NJDEP OQA directly from the PT provider.

The complete initial certification application package must be mailed to the NJDEP OQA, following the instructions on the Part I certification application form. All application packages are processed in the order in which they are received.

If the certification application forms and/or the required data package is not submitted or is missing information, the application will be considered administratively incomplete, and the laboratory will be notified of any discrepancies. The application package will be returned to the laboratory and the laboratory will be required to resubmit the application once all the

required information can be provided with the application During this time, the incomplete application package will not be considered received and will not be placed in the queue for technical review.

Once the application package has been received and determined to be administratively complete by the NJDEP OQA, the NJDEP OQA will assign the laboratory a laboratory certification officer (LCO) and a New Jersey laboratory identification number. The laboratory will be mailed a notification letter identifying the name of the LCO and the New Jersey laboratory identification number, along with:

1) A Laboratory Personnel Listing (LPL) which will list the approved laboratory manager(s), quality assurance (QA) officer(s), and supervisor(s)/technical manager(s); and

2) An Annual Certified Parameter List (ACPL) which will indicate the certification statuses ("Applied") for all parameters/methods/matrices.

The laboratory is not permitted to perform compliance/regulatory testing of those parameters/methods/matrices with an "Applied" status. Such testing is not permitted until the status for a particular parameter/method/matrix is listed as "Certified" on the ACPL.

Within three to six months of receiving the complete application, the assigned LCO will perform a technical review of the submitted data package and will contact the laboratory to schedule an on-site audit (see Section II for explanation of the on-site audit and further steps in the certification process).

**Please note that the OQA certifies a laboratory as an entity itself, not instruments or personnel. While it is understood that due to the field-nature of LFPS, laboratory staff may not be in the physical location of the laboratory when actively performing testing, it is required that all equipment and records are under the control of the requisite laboratory personnel. All laboratory records and equipment (see exceptions below regarding rental equipment) are required to be returned to the physical laboratory location after completion of sampling events. Equipment in use may be owned by the laboratory or rented from an equipment rental company. If the equipment is being rented, the laboratory is still responsible for obtaining all required and applicable information from the rental company (e.g., meter calibration records, certificates of analysis for standards and reagents provided by and used by the rental company, etc.) and ensuring the information provided by the rental company is in compliance with the regulations. When utilizing rental equipment, the laboratory must conduct the necessary daily calibrations and calibration checks and must maintain all calibration records for each instrument used. Equipment must be traceable by serial number, or other unique identifier, and the applicable identifier must be recorded in calibration and analytical records.

For more information on the initial certification application process, please refer to the

instructional documents, such as "Information Required When Requesting Certification" and "Instructions for Submitting an Initial Application", on the NJDEP OQA Laboratory Certification Programs website[1].

A. Certification Application Forms

The certification application forms (Parts I, II, and III) may be accessed directly on the NJDEP OQA Laboratory Certification Programs website[1], at the bottom of the page.

The Part III form is a large document (> 300 pages). Only the pages which contain the parameter(s)/method(s)/matrix(ces) for which the laboratory is applying need to be printed for submittal. For example, when applying for pH certification in the non-potable water (NPW) matrix using Standard Methods (SM) 4500-H B-11, the NPW04 category listing page (for NPW analyze--immediately, continuous monitoring and/or PWTA parameters/methods) must be located. Once the page is located, find the certification line that contains "pH" as the parameter description, "Electrometric" as the technique description, and "SM 4500-H B-11" as the approved method. Mark a letter "A" (for "Applied") beside this pH certification line, under the column labeled "Status."

Note: Certification lines on the Part III form that contain the word "Continuous" as part of the technique description are not appropriate for LFPS parameter certification. These certification lines pertain to other types of analysis and must not be selected for LFPS monitoring.

B. Fee Payment

As part of the initial certification application package, payment of applicable fees must be made via submission of a check or money order, made payable to the "Treasurer-State of New Jersey". When calculating fees, please refer to the N.J.A.C. 7:18-2.9 Fee Schedule[1.a]. Please note that there are several combination fee categories that may apply. For LFPS parameters, certification in two categories is required: NPW03 Inorganic Parameters for turbidity and conductivity and NPW04 Analyze-Immediately and Continuous Monitoring for pH, temperature, and dissolved oxygen (DO). Considering these required categories, the following fees for initial LFPS parameter certification in NPW would apply: $900 (initial application fee) + $540 (category fee for NPW03 Inorganic Parameters) + $235 (category fee for NPW04 Analyze-Immediately and Continuous Monitoring) = a total fee payment of $1675.

The check or money order must be mailed to the NJDEP OQA along with the other application package submittals. The check or money order is not to be mailed to the Treasurer-State of New Jersey, or other separate address.

C. Data Package

Standard Operating Procedure (SOP)

An SOP for each parameter/method for which the laboratory is applying for certification must be submitted as part of the data package.

The best written SOPs are those that describe all aspects of sample collection, handling and

analysis. The SOP may include copies of the instrument manufacturer's instructions, but it must describe actual laboratory procedures/practices that adhere to both method and N.J.A.C. 7:18 *et. seq.* requirements. The SOP should contain or reference the following information, when applicable:

a. The laboratory's name and New Jersey laboratory identification number (*Note: The laboratory identification number will be assigned to the laboratory after the application is submitted to the OQA, reviewed, and determined to be administratively complete. For the SOP submittal, leave a space for this identification number to be added at a later date.)*;
b. Page numbers and total number of pages;
c. Revision number and effective date;
d. Signature of the manager, supervisor, and/or quality assurance officer of the laboratory;
e. Identification of the parameter and method (e.g., SM 4500-H B-11 for pH analysis);
f. The scope and application, including the matrix or matrices to which it is applicable;
g. A summary of the method;
h. The reporting limit;
i. Definitions;
j. Interferences;
k. Apparatus, equipment, supplies, chemicals, reagents, standards and reference materials;
l. Sample collection, handling, preservation, shipment, and storage;
m. Calibration and standardization;
n. Sample preparation and analytical procedure;
o. Maintenance and troubleshooting;
p. Data acquisition, calculations, and reduction;
q. Quality control practices, including frequency and acceptance criteria;
r. Contingencies for handling out-of-control or unacceptable data;
s. Demonstration of capability;
t. Corrective action protocols; and
u. References.

For more information about SOP requirements, see Subchapters 5 and 8 of the N.J.A.C. 7:18 *et. seq.*

Proficiency Test (PT) Analysis

To obtain certification, a successful proficiency testing (PT) sample must be completed for any parameter/method/matrix that requires a PT sample. For LFPS, a successful PT must be completed for pH, turbidity, and conductivity. The PT samples must be obtained from a NJDEP OQA approved PT Provider. A list of these providers can be accessed on the Proficiency Testing (PT) Samples website[2] by clicking on the link "a list of DEP approved accredited PT providers"[2.a] under the "DEP Approved Providers" section. The PT samples may be procured at any time throughout the initial application preparation process; however, the PT sample

analysis must be successfully completed within the preceding 12 months (preferably within the preceding six months) from the submittal of the initial certification application package.

**Please note that after laboratories become certified, the PT study analysis must be performed in accordance with the NJDEP OQA established PT Study Schedule Table[2.b] timeframes.

When contacting the PT Provider, the provider will need to be informed that the laboratory is seeking to obtain certification with the State of New Jersey. The laboratory will also need to inform the provider of the applicable parameters and matrix(ces) being requested for certification.

Upon receipt of the PT samples, the samples must be treated the same as real-world samples, including performance of required calibrations and quality control protocols as defined by the methods and the N.J.A.C. 7:18 *et. seq*. requirements and analysis of the sample only once or in duplicate (to meet duplicate analysis requirements). The calibration, quality control protocol, and sample results must be recorded exactly as if the samples were real-world samples. When the PT sample results are submitted to the PT provider, the following information must also be included: the name and physical location of the laboratory, the exact analytical method reference for which the laboratory is seeking certification (refer to the Part III application form for reference), and the NJ laboratory identification number (if one has been assigned). Prior to the close of the PT study, the laboratory must also inform the PT provider that the NJDEP OQA is to receive the PT results. The laboratory name and address (and ID if assigned) reported on the PT results must match the information noted on the certification application, if these do not match the PT results will not be accepted and the laboratory will be required to perform another PT study. The NJDEP OQA will only accept PT results from the PT provider.

Demonstration of Capability (DOC) or Precision and Accuracy (P/A) Study

The laboratory may be required to complete a demonstration of capability (DOC) or a precision and accuracy (P/A) study, as part of the data package. The need to perform the DOC or P/A study is dependent upon the requirements of the method. Some methods do not require the performance of either study. Thus, it is important that the laboratory carefully read each method for which certification is being sought. If required, the DOC or P/A study must be performed in accordance with the method specifications. A copy of the study results, including the associated raw data, must be submitted as part of the data package.

II. On-site Audit

One of the final stages of the initial certification process is participation in an on-site audit. The assigned LCO will schedule and perform an on-site audit with the laboratory. During the audit, the LCO will interview laboratory personnel and review records specific to each parameter/method/matrix to determine compliance with method and N.J.A.C. 7:18 *et. seq*. requirements. The LCO may also request that the laboratory demonstrate the calibration of

laboratory equipment. If the laboratory rents equipment it shall ensure the equipment is available at the audit for inspection and use during the requested demonstration of calibration. The LCO will utilize an NJDEP OQA-developed checklist during the audit to ensure the appropriate requirements are met and to ensure consistency between audits. A copy of an NJDEP OQA LFPS checklist is available on the NJDEP OQA Guidance Documents website[3].

After the on-site audit concludes, the LCO will prepare and issue an on-site audit report, within 30 calendar days, detailing any deficiencies observed during the audit. The laboratory will be required to correct those deficiencies, as specified in the on-site audit report, and to submit a corrective action plan (CAP) (and supporting documentation, as requested) detailing how the corrections will be made. It is the laboratory's responsibility to ensure the CAP and requested documentation are submitted within a timely manner in order to obtain certification. No certification will be granted until all the deficiencies noted during the on-site audit have been acceptably corrected.

Once the LCO has determined that the on-site audit deficiencies have been acceptably corrected, an audit closeout letter will be issued to the laboratory with the following enclosures that identify the laboratory as a NJDEP certified laboratory: signed laboratory certification certificate and an Annual Certified Parameter List (ACPL). The ACPL will indicate a specific certification status for each parameter/method/matrix; and only the line items listed as "Certified" on the ACPL can be used to conduct compliance/regulatory testing. **Compliance/regulatory testing cannot be conducted by the laboratory if it is in "Applied" or "Suspended" status for a particular line item.**

LFPS can only be performed if the laboratory maintains certification for all five LFPS parameters. Thusly, if at any time a laboratory's certification for one or more of the LFPS parameters is placed into "Suspended" or "Applied" status, the laboratory must not perform LFPS.

III. LFPS Parameter-Specific Requirements

The NJDEP OQA LFPS checklist (which may be utilized by LCOs during on-site audits) can be accessed directly at the NJDEP OQA Guidance Documents website[3]. The information in the NJDEP OQA LFPS checklist, derived from the N.J.A.C. 7:18 *et. seq*. and the commonly used methods for LFPS parameters, is being provided to detail some of the core requirements that are enforced for LFPS parameters (as of the revision date of this document). The checklist does not necessarily detail all the requirements enforceable for each parameter but has been provided as a helpful resource. For a more inclusive view of requirements, the individual method for each LFPS parameter and the N.J.A.C. 7:18 *et. seq.* regulations should be reviewed.

**Reminder: LFPS laboratories are permitted to rent the appropriate meter(s) from rental companies provided that if the rental company performs any required calibration, calibration checks, etc., the laboratory must obtain all associated documentation from the rental company and ensure those comply with requirements. This documentation must be

maintained in the laboratory's files and be traceable to each meter's serial number.

IV. Links

NJDEP OQA home page: https://dep.nj.gov/dsr/oqa/

1. Laboratory Certification Programs (website contains access to application forms and instructions): https://dep.nj.gov/dsr/oqa/laboratory-certification-programs/

    a. N.J.A.C. 7:18-2.9 Fee Schedule (for calculation of application fees): https://dep.nj.gov/wp-content/uploads/dsr/oqa/fee_schedule.pdf

2. Proficiency Testing (PT) Samples: https://dep.nj.gov/dsr/oqa/proficiency-testing/

    a. A list of DEP Approved Accredited PT Providers: https://nelac-institute.org/content/NEPTP/ptproviders.php

    b. PT Study Schedule Table: https://dep.nj.gov/dsr/oqa/proficiency-testing/#table

3. OQA Guidance Documents: https://dep.nj.gov/dsr/oqa/guidance-documents/