

Obtaining Certification for Arsenic and/or Nitrate in support of NR 812 changes

APPLICATION PROCESS

The required elements to become a certified lab or to add to one's accreditations are:

1. Complete and mail an application.
2. Submit a check (sorry, no credit cards) for the application fee.
3. Pass and submit results for any required PT samples. The study close date must be no more than 6 months removed from the date we receive the application (i.e., the "application date").
4. Include the following information with your application:
 - a. a copy of your Quality manual that conforms to the requirements in s. NR 149.37. see "general lab documents & resources" below for where to obtain a copy.
 - b. an equipment list.
 - c. your LOD (aka MDL) determination data.

Note: the auditor may require additional information as well.
5. Undergo and respond to any deficiencies identified during an on-site evaluation. In some cases, an evaluation can be waived and a "paper" audit is performed.

APPLICATION FORMS

Application forms and application information can be found on our website at:

<http://dnr.wi.gov/regulations/labcert/index.html#tabx2>

The main application form (choose "Initial" application for new labs) is available at:

<http://dnr.wi.gov/files/PDF/forms/4800/4800-002.pdf>

In addition, if you are a NEW lab to our program, you'll need to complete an FEIN form:

<http://dnr.wi.gov/files/PDF/forms/9400/9400-568.pdf>

Finally, you'll need to indicate the parameters and methods for which you desire accreditation on the Attachment for Drinking Water matrix technologies

<http://dnr.wi.gov/regulations/labcert/documents/App3DWr6.pdf>

WHAT METHODS ARE APPROVED?

1. **Approved methods and technologies for nitrate in drinking water**
Blue text and "★" designate the least expensive approaches

Technology costs are listed in order of increasing cost. A set of nitrate probes runs roughly about \$1,000 and these are good for maybe a couple of years or so. An ion meter will cost approximately \$2,500.00. In addition there are glassware, reagents, and standard costs.

The manual colorimetry HACH method requires a good quality spectrophotometer like the HACH DR-3900 (approximately \$4,000.00). The Test N' Tubes and reagents cost approximately \$2.50 per sample. As with the ion selective electrode there are additional equipment, standards, and reagent costs for a start-up operation.

Beyond ISE and colorimetry, the instrumentation (new) costs begin at about \$20,000.

Ion Selective Electrode (ISE)

- ★ Nitrate - Orion 601
- ★ Nitrate - SM 4500-NO3- D

Manual Colorimetry

- ★ Hach Method 10206 [HACH Test Kit + Spectrophotometer]
- ★ ASTM D3867 (B) [Manual Chemistry + Spectrophotometer]
- ★ Standard Methods 4500-NO3- E [Manual Chemistry + Spectrophotometer]

Automated Colorimetry (Flow Injection/Autoanalyzer/Discrete Analyzer)

- ASTM D3867 (A)
- EPA 353.2
- Standard Methods 4500-NO3- F
- Systema Easy (Systema Discrete Analyzer)

Ion chromatography (IC)

- ASTM D4327
- EPA 300.0
- EPA 300.1
- Standard Methods 4110B
- Waters B-1011

Capillary Ion Electrophoresis

- ASTM D6508, Rev. 2

2. Approved methods and technologies for arsenic in drinking water

Gaseous Hydride AA

- ASTM D2972 (B)
- Standard Methods 3114B

Graphite Furnace AA

- ASTM D2972 (C)
- EPA 200.9
- Standard Methods 3113B

ICP (Axial Torch)

- EPA 200.5

ICP/MS

- EPA 200.8

APPLICATION COST

An application for drinking water nitrate only, for a lab new to the program is: \$1,524.00

An application for drinking water arsenic only, for a lab new to the program is: \$1,714.50

An application for both arsenic and nitrate in drinking water, for a lab new to the program is: \$1,905.00

Ongoing annual costs are a little less. The prices above include a one-time application fee of \$381. Fees also routinely increase annually.

If your lab is already certified for drinking water, the cost may only be as low as a one-time application fee of \$190.50.

FEE INFORMATION

List of fees

http://dnr.wi.gov/Regulations/labCert/documents/LabCert_fees2014-15.pdf

Application calculator

<http://dnr.wi.gov/regulations/labcert/documents/AppFeeCalc.xls>

PROFICIENCY TESTING (PT) SAMPLES

For drinking water, only Water Supply (“WS”) PT samples are allowed. An acceptable PT sample is required annually. For renewal of accreditation, the study close dates must be no earlier than January and must be received in our office by August 15. Failure to correctly report the approved method code associated with the analyte – method combination for which you are accredited will void your results.

A link to our list of approved PT Providers is provided below.

<http://dnr.wi.gov/Regulations/labCert/documents/PTProviderList.pdf>

Please note that “regular” PT studies last 45 days and results are not usually available for another 10-14 days. If time is of the essence then be sure to ask your chosen PT Provider about “Quick Turn” or Rapid Response” PT samples (which cost a bit more but timing will better suit most labs’ needs).

DRINKING WATER CERTIFICATION INFORMATION

Manual for the Certification of Drinking Water Laboratories:

http://www.epa.gov/ogwdw/methods/pdfs/manual_labcertification.pdf

GENERAL LAB DOCUMENTS & RESOURCES

Links to assist you with MDL/LOD determinations

<http://dnr.wi.gov/regulations/labcert/documents/guidance/-LODguide.pdf>

<http://dnr.wi.gov/regulations/labcert/documents/forms/LODCalcs.xls>

Link to templates for QA Manuals

http://dnr.wi.gov/regulations/labcert/documents/guidance/A_QualMan_rev0.pdf

http://dnr.wi.gov/regulations/labcert/documents/guidance/A_QualMan_rev0.doc

General Resources link

<http://dnr.wi.gov/regulations/labcert/Resources.html>

A copy of our administrative rule (NR 149) can be found here:

http://docs.legis.wisconsin.gov/code/admin_code/nr/100/149