

### Texas Commission on Environmental Quality Technical Manager Qualification Form



Name:	Date:
Position/Title:	
Laboratory, Norma	
Laboratory Name:	

#### TCEQ Laboratory Certificate Number:

Technical manager qualifications are based on the following categories per The NELAC Institute (TNI):

- education and experience;
- previous recognition; or
- exceptions.

#### **Code of Integrity for Applicant**

By signing and submitting the technical manager qualification form, the applicant declares the contained information is correct to the best of their knowledge. The applicant affirms the experience and education listed are factual and truthful. Those who submit false credentials will have their technical manager recognition revoked and the violation will be permanently documented in accordance with TCEQ retention policies. This infraction will be reported to the TCEQ Program Manager or designee.

Applicant Signature: \_\_\_\_\_

#### Instructions:

Most categories contain more than one option. Please review the options and criteria in each category on the following pages. **To qualify for technical manager recognition, the candidate must meet all criteria under one of the options within a category** (e.g., education and experience, previous recognition, or exceptions). <u>Additional experience cannot substitute the educational requirements as required per TNI.</u>

Information on all laboratory personnel and their qualifications (education and laboratory experience) must be on file in the laboratory and made available to the assessor(s) for review upon request. Submit the completed form for each designated technical manager candidate to Texas Commission on Environmental Quality (TCEQ).

Additionally, the applicant **must submit a resume and college transcripts** (official or unofficial copies are acceptable) to be evaluated. If the candidate wanting to be recognized as a Technical Manager obtained a college education abroad, then academic equivalency documentation must also be submitted to TCEQ.

# Along with meeting the requirements in TNI V1M2 5.2.6.1 or 5.2.6.2, the applicant must also demonstrate conformance to TNI V1M2 4.1.7.2 which states the following:

The laboratory's technical manager(s), however named, and his/her designee(s) shall:



### Texas Commission on Environmental Quality Technical Manager Qualification Form



- a) be a member of the staff of an environmental laboratory who exercises actual day-today supervision of laboratory operations for the appropriate fields of accreditation and reporting of results;
- b) be experienced in the fields of accreditation for which the laboratory is seeking accreditation;
- c) have duties that include:
  - i. monitoring standards of performance in QC and QA, and
  - ii. monitoring the validity of the analyses performed and data generated in the laboratory to assure reliable data.
- d) not be the technical manager(s) of more than one accredited environmental laboratory without authorization from the primary Accreditation Body. Circumstances to be considered in the decision to grant such authorization shall include:
  - i. the extent to which operating hours of the laboratories to be directed overlap,
  - ii. adequacy of supervision in each laboratory, and
  - iii. the availability of environmental laboratory services in the area served.
- e) if absent for a period of time exceeding fifteen (15) consecutive calendar days shall designate another staff member meeting the qualifications of the technical manager(s) to temporarily perform this function. If absence exceeds thirty-five (35) consecutive calendar days, the primary accreditation body shall be notified in writing; and
- f) meet qualification requirements as specified in Section 5.2.6.1.

Note for TNI V1M2 4.1.7.2 b: TCEQ may grant the applicant recognition for the needs of the laboratory accredited testing, as applicable, regardless of designation filled out on the Technical Manager Qualification Form.

For example:

- If the laboratory performs SM 9223 B (Colilert and Colilert-18), the microbiological full option is not applicable.
- If the laboratory performs inorganic limited to other than metals, the chemistry full option is not applicable.

#### Important Note for Biochemistry:

Biochemistry courses completed in the biology department or chemistry department will count towards credit hours for Technical Manager recognition in all chemical or microbiological analysis options. However, once the credit hours are counted towards a particular recognition, they cannot then be used again for additional recognition. For example, if an applicant is requesting recognition for chemical analyses under option 1 and has a 4-hour biochemistry course taken in the biology department, these 4 hours can be used to meet the educational requirement. If this same applicant asks for recognition under several options, as in chemical analyses under option 1 and microbiological analyses under option 1, then this biochemistry class can only be used to meet the educational requirement for one of the options requested. Furthermore, if the same applicant used the biochemistry class to meet the educational requirement under chemical analyses with option 1 and later asks for recognition under a different option, the 4 hours in biochemistry cannot be used again to meet further educational requirements.





#### Chemical analyses testing (TNI V1M2-5.2.6.1.a):

I request technical manager recognition for chemical analyses based on my education and experience, which meet all requirements in one of the following options.

#### **Option 1 for Chemical analyses with a bachelor's degree:**

□ I have a bachelor's degree in the chemical, environmental, biological sciences, physical sciences or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  My coursework included at least twenty-four (24) college semester credit hours in chemistry; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least two years of experience in the environmental analysis of representative inorganic and organic analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Total Expe	erience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ





#### Chemical analyses testing (TNI V1M2-5.2.6.1.a):

I request technical manager recognition for chemical analyses based on my education and experience, which meet all requirements in one of the following options.

#### **Option 2 for Chemical analyses with a master's or Doctoral Degree:**

□ I have a master's or doctoral degree in the chemical, environmental, biological sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

□ My coursework included at least twenty-four (24) college semester credit hours in chemistry; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least one (1) year of experience in the environmental analysis of inorganic and organic analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Tota	l Experience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





**Inorganic chemical analyses other than metals testing (TNI V1M2-5.2.6.1.b**) (i.e.: Ammonia, Nitrate, BOD):

I request technical manager recognition for inorganic (non-metals) analytical testing based on my education and experience, which meet all requirements below.

□ I have an associate degree in the chemical, physical or environmental sciences or two (2) years of equivalent successful college education;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  My coursework included at least sixteen (16) college semester credit hours in chemistry; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least **two (2) years** of experience in the environmental analysis of inorganic (nonmetals) analytes.

Laboratory/Company	Duration
Total Experienc	
	Total Experience

#### Does the applicant have enough hours AND experience?

 $\hfill\square$  If yes, submit the application to TCEQ.

 $\hfill\square$  If no, then do not submit the application to TCEQ.





#### Whole Effluent Toxicity (W.E.T.) (TNI V1M2-5.2.6.1.c, first paragraph):

I request technical manager recognition for biological analyses based on my education and experience, which meet all requirements in one of the following options.

*Note: This is technical manager recognition for laboratories measuring the toxicity and/or bioaccumulation of contaminants in effluents, receiving waters, sediments, elutriates, leachates and soils, subject to TNI V1M7. This is not the same as wet chemistry (classical chemistry) or general microbiological analysis.* 

#### **Option 1 for WET with a bachelor's degree:**

□ I have a bachelor's degree in biology, chemistry, environmental sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  My coursework included at least sixteen (16) college semester credit hours in biology; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least two (2) years of experience in the environmental analysis of representative analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Total Experience	ce:

- $\Box$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





#### Whole Effluent Toxicity (W.E.T.) (TNI V1M2-5.2.6.1.c, first paragraph):

I request technical manager recognition for biological analyses based on my education and experience, which meet all requirements in one of the following options.

*Note: This is technical manager recognition for laboratories measuring the toxicity and/or bioaccumulation of contaminants in effluents, receiving waters, sediments, elutriates, leachates and soils, subject to TNI V1M7. This is not the same as wet chemistry (classical chemistry) or general microbiological analysis.* 

#### **Option 2 for WET with a master's or doctoral degree:**

□ I have a master's or doctoral degree in biology, chemistry, environmental sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  My coursework included at least sixteen (16) college semester credit hours in biology; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least one (1) year of experience in the environmental analysis of representative analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Total Experience:	

- $\Box$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.



(2016 TNI Standard V1M2-5.2.6.1.a - f)



Microbiological or biological laboratory analyses testing (TNI V1M2-5.2.6.1.c, first

#### paragraph):

I request technical manager recognition for microbiological or biological analyses based on my education and experience, which meet all requirements in one of the following options.

# Option 1 in microbiological or biological laboratory analyses testing with a bachelor's degree:

□ I have a bachelor's degree in microbiology, biology, chemistry, environmental sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

□ My coursework included at least sixteen (16) college semester credit hours in general microbiology and biology; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least two (2) years of experience in the environmental analysis of representative analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Total Expe	rience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\hfill\square$  If no, then do not submit the application to TCEQ.



(2016 TNI Standard V1M2-5.2.6.1.a - f)



Microbiological or biological laboratory analyses testing (TNI V1M2-5.2.6.1.c, first

## paragraph):

I request technical manager recognition for microbiological or biological analyses based on my education and experience, which meet all requirements in one of the following options.

# Option 2 in microbiological or biological laboratory analyses testing with a master's or doctoral degree:

□ I have a master's or doctoral degree in microbiology, biology, chemistry, environmental sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

□ My coursework included at least sixteen (16) college semester credit hours in general microbiology and biology; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least one (1) year of experience in the environmental analysis of representative analytes for which the laboratory seeks or maintains accreditation.

Analyte	Laboratory/Company	Duration
	Total Expe	rience:

- $\Box$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





# Microbiological or biological laboratory analyses limited to fecal coliform, total coliform, *E. coli*, and standard plate count testing (TNI V1M2-5.2.6.1.c, second paragraph):

My laboratory's scope is limited to fecal coliform, total coliform, *E.coli*, and standard plate count. I request technical manager recognition for the limited scope of testing based on my education and experience, which meet all requirements below.

□ I have an associate degree in an appropriate field of the sciences or applied sciences, or have two (2) years of equivalent successful college education;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

□ My coursework included at least four (4) college semester credit hours in general microbiology; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

 $\Box$  I have at least one (1) year of experience in microbiological analysis.

Analyte	Laboratory/Company	Duration
	Total Expe	rience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





#### Radiological analyses testing (TNI V1M2-5.2.6.1.d):

I request technical manager recognition for radiological analytical testing based on my education and experience, which meet all requirements in one of the following options.

#### **Option 1 for radiological analyses testing with a bachelor's degree:**

□ I have a bachelor's degree in chemistry, environmental, biological sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\hfill\square$  My coursework included at least twenty-four (24) college semester credit hours in chemistry; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

□ I have at least two (2) years of experience in the environmental analysis of radiological environmental samples.

Analyte	Laboratory/Company	Duration
	Total Experience:	

- $\Box$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





#### Radiological analyses testing (TNI V1M2-5.2.6.1.d):

I request technical manager recognition for radiological analytical testing based on my education and experience, which meet all requirements in one of the following options.

#### Option 2 for radiological analyses testing with a master's or doctoral degree:

□ I have a master's or doctoral degree in chemistry, environmental, biological sciences, physical sciences, or engineering;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  My coursework included at least 24 college semester hours in chemistry; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

 $\Box$  I have at least one (1) year of experience in the environmental analysis of radiological environmental samples.

Analyte	Laboratory/Company	Duration
	Total Expe	rience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\Box$  If no, then do not submit the application to TCEQ.





#### Microscopic examination of asbestos and/or airborne fibers (TNI V1M2-5.2.6.1.e.i.ii.iii):

Transmission Electron Microscope (TEM): I request technical manager recognition for transmission electron microscope analytical testing based on the following requirements, which meet all of the criteria in the following option:

 $\Box$  I have a bachelor's degree;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\hfill\square$  My coursework included the use of the TEM instrument; and

Course Number (including CHEM prefix)	Course name	Credit hours
	Total Hours:	

 $\Box$  I have at least one (1) year of experience, under supervision, in the use of the instrument, which includes the identification of minerals.

Analyte	Laboratory/Company	Duration
	Total Expe	rience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\hfill\square$  If no, then do not submit the application to TCEQ.





#### Radiation Measurements (TNI V1M2-5.2.6.1.f):

I request technical manager recognition for examination of radon in air based on the following requirements, which meet all of the criteria in the following option:

 $\Box$  I have an associate degree or two years of college;

University/School	Major	Degree Awarded (Associates, BS, MS, PhD)

 $\Box$  I have at least one (1) year of experience in radiation measurements; and

Matrix	Laboratory/Company	Duration
		Press and an and
	l otal 1	Experience:

 $\Box$  I have at least one (1) year of experience in the measurement of radon and/or radon progeny.

Matrix	Laboratory/Company	Duration
	Tota	l Experience:

- $\hfill\square$  If yes, submit the application to TCEQ.
- $\hfill\square$  If no, then do not submit the application to TCEQ.



### **TCEQ Technical Manager Qualification Form** Technical Manager Qualifications Based on Exceptions

(2016 TNI Standard V1M2-5.2.6.2.a & b)

HELP RECOGNIE TO THE FORMATION BOOT

The exceptions apply only to a laboratory in a water treatment facility, a sewage treatment facility, or an industrial waste treatment facility. The facility's laboratory analyzes water treatment/sewage treatment/industrial treatment samples collected within the state where the laboratory is situated.

I request technical manager recognition based on the exceptions for professional certificate or type of laboratory, because I meet the following criteria:

#### Option 1:

- $\Box$  I am a full-time employee of a drinking water or sewage treatment facility.
- □ I hold a valid operator's certificate equivalent (i.e., Class C or higher) to the nature and size of the facility.

License #: \_\_\_\_\_

- $\hfill\square$  Submit a copy of the current valid operator's certificate to TCEQ.
- □ I have two (2) years analytical testing experience devoted to the testing of environmental samples specified in the scope of the facility's regulatory permit.

#### **Option 2:**

- $\hfill\square$  I am a full-time employee of an industrial waste treatment facility.
- □ I hold a valid operator's certificate equivalent (i.e., Class C or higher) to the nature and size of the facility.

License #: \_\_\_\_\_

- $\hfill\square$  Submit a copy of the current valid operator's certificate to TCEQ.
- □ I have two (2) years analytical testing experience devoted to testing of samples specified in the scope of the facility's regulatory permit.



### **TCEQ Technical Manager Qualification Form**



Based on Exceptions/Previously Recognized (2016 TNI Standard V1M2-5.2.6.2.c)

I request technical manager recognition based on my experience, which meets the criteria of persons who do not meet the education credential requirements, but possess the requisite experience of Section 5.2.6.1, shall qualify as technical manager(s) subject to the following conditions.

#### Option 1:

- $\Box$  I am currently the individual designated as being responsible for the testing areas indicated (choose at least one):
  - $\hfill\square$  Inorganic chemical analysis other than metals testing
  - $\Box$  Organic chemical analysis
  - $\hfill\square$  Metal analysis
  - $\Box$  Microbiology/W.E.T.
  - □ Radiochemistry
  - $\Box$  Asbestos
- □ I have held the position of technical manager of the laboratory **on the date the laboratory applied** for accreditation and/or became subject to accreditation under the standard.
- $\Box$  I have been a technical manager in the laboratory continuously for the previous twelve (12) months.
- $\Box$  Provide proof of position held when the laboratory applied for accreditation and/or became subject to accreditation under the standard.

#### Option 2:

□ Eligibility as technical manager was established under these conditions for the same fields of accreditation in another accredited laboratory.

 $\Box$  Provide the following information:

Previous laboratory name:
Previous technical manager designations held:
Provide dates of recognition:
0

 $\Box$  Provide proof of previous recognition.

#### **Option 3:**

- □ In my previous technical manager position, I received recognition status as technical manager from \_\_\_\_\_\_, a NELAP-recognized state accreditation body (AB), for the testing area(s) selected below:
  - □ Inorganic chemical analysis other than metals testing
  - □ Organic chemical analysis
  - $\Box$  Metal analysis
  - □ Microbiology/W.E.T.
  - □ Radiochemistry
  - $\Box$  Asbestos
- $\Box$  If previously recognized from outside the state of Texas, please provide a previous recognition letter or approval notice from the Accrediting Body.





#### LAPF-020 Revision History

Revision 0. Effective date 01/31/20

Revision 1. Effective date 10/06/23

Updated the entire form to create fields for the applicants to provide information for evaluation purposes.

Revision 2. Effective date 04/16/24

Updated the following for further clarification and formatting:

Page 1 defines the Instruction paragraph and adds that additional experience cannot substitute educational requirements.

Pages 5 and 6 have a note explaining WET is for toxicity and/or bioaccumulation.

Pages 7 and 8 do not specify the number of microbiology hours required.

Page 12 the referenced standard was updated to include ii and iii.

Page 13 added the radiation measurement application

Page 14 includes submitting a copy of the current valid operator certificate for objective proof.

Page 15 option 1 to provide proof of position; option to update the formatting and provide proof; option 3 updated formatting.

Revision 3. Effective date 07/16/24

Added the following for further clarification for the applicant:

Page 1 Code of Integrity for the applicant and a signature line for the applicant to acknowledge they are providing complete and accurate information.

Pages 1 and 2 require an applicant to demonstrate conformance to V1M2 4.1.7.2 and applicant recognition for the needs of the laboratory accredited testing.