

# ENVIRONMENTAL PROTECTION COMMISSION[567]

## Regulatory Analysis

Notice of Intended Action to be published: Iowa Administrative Code 567—Chapter 83  
“Laboratory Certification”

Iowa Code section(s) or chapter(s) authorizing rulemaking: 455B.103(2), 455B.105(3), 455B.113(1) through (4); 455B.114(1) and (2), and 455B.115

State or federal law(s) implemented by the rulemaking: Iowa Code sections 455B.113 through 455B.115; federal Drinking Water Primacy requirements in 40 CFR Section 141.10(b)(3)(i)

### *Public Hearing*

A public hearing at which persons may present their views orally or in writing will be held as follows:

September 24, 2024  
10 to 11 a.m.

Virtual via Zoom – see [www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Quality-Rulemaking](http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Quality-Rulemaking) for meeting information

### *Public Comment*

Any interested person may submit written comments concerning this Regulatory Analysis. Written comments in response to this Regulatory Analysis must be received by the Department of Natural Resources no later than 4:30 p.m. on the date of the public hearing. Comments should be directed to:

Kathy Lee  
Iowa Department of Natural Resources  
6200 Park Avenue, Suite 200  
Des Moines, Iowa 50321  
Email: [kathy.lee@dnr.iowa.gov](mailto:kathy.lee@dnr.iowa.gov)

### *Purpose and Summary*

Proposed Chapter 83 establishes the procedures for laboratory certification, fees, and criteria for downgrading a certification for a laboratory. A laboratory certification program for drinking water is required by 40 CFR Section 141.10(b)(3)(i) for the state to receive primacy for federal drinking water regulations. This chapter has been reviewed and edited consistent with Executive Order 10 (January 10, 2023).

### *Analysis of Impact*

1. Persons affected by the proposed rulemaking:
  - Classes of persons that will bear the costs of the proposed rulemaking:  
Regulated laboratories will bear the costs.
  - Classes of persons that will benefit from the proposed rulemaking:  
Regulated laboratories, environmental facilities, and the citizens of Iowa will benefit.
2. Impact of the proposed rulemaking, economic or otherwise, including the nature and amount of all the different kinds of costs that would be incurred:
  - Quantitative description of impact:

Iowa Code section 455B.113 gives the Department the authority to collect fees for the Laboratory Certification Program. Fees range from \$400 to \$14,350 depending on the size, number of analyses performed, and sophistication of the laboratory. Laboratories must maintain and calibrate equipment, follow standard operating procedures, perform quality control checks, and train analysts in proper

laboratory practices. These costs are variable and are dependent on the size, number of analyses performed, and sophistication of the laboratory.

- Qualitative description of impact:

The purpose of a certification program is to ensure that environmental analytical compliance data generated for the Department are scientifically valid and defensible, and are of known and acceptable precision and accuracy. The rules ensure that laboratories are producing data that is consistent between analysts in each laboratory and between laboratories. The compliance data produced is used to determine if drinking water is safe; facilities are complying with wastewater permits; leachate is migrating from landfills; underground storage tank releases are being cleaned up; contaminated sites are being assessed correctly; and if Iowa's rivers, lakes, and wetlands are meeting water quality standards under the Clean Water Act.

3. Costs to the State:

- Implementation and enforcement costs borne by the agency or any other agency:

The Department administers, has oversight, and issues certifications to laboratories. The Department contracts with the State Hygienic Laboratory (SHL) at the University of Iowa to conduct on-site audits and provide technical assistance to laboratories. The Department has a tracking system for laboratories that ensures the laboratories apply on time for certification renewals, pay the appropriate fee, and have submitted the appropriate corrective actions to stay in compliance with method requirements, equipment calibration and maintenance, quality control checks, and training of analysts. On-site assessments of laboratories may range from two to eight hours. Additional time is required to prepare the assessment report and issue the certification. Administrative consent orders are prepared if it is necessary to suspend or revoke the certification of a laboratory, but this rarely occurs.

- Anticipated effect on state revenues:

Neutral. These actions are already being implemented.

4. Comparison of the costs and benefits of the proposed rulemaking to the costs and benefits of inaction:

The program ensures that all laboratories reporting compliance data to the Department are meeting the same requirements, which gives facilities, the public, and the Department confidence that the results are legally defensible. If there was not a Laboratory Certification Program, the public and regulated facilities would not have a benchmark (certification) to determine whether a laboratory is producing reliable data that are scientifically valid and defensible, and are of known and acceptable precision and accuracy.

5. Determination whether less costly methods or less intrusive methods exist for achieving the purpose of the proposed rulemaking:

There are no less costly or intrusive methods to accomplish the benefit. A laboratory certification program for drinking water is required by 40 CFR Section 141.10(b)(3)(i) for the state to receive primacy for federal drinking water regulations. Iowa Code sections 455B.113 through 455B.115 establish requirements for the Laboratory Certification Program that requires analytical laboratories that submit compliance data pursuant to Department rules, permits or orders to be certified.

6. Alternative methods considered by the agency:

- Description of any alternative methods that were seriously considered by the agency:

No alternatives were considered.

- Reasons why alternative methods were rejected in favor of the proposed rulemaking:

There are no alternatives since a certification program is required for primacy of the drinking water program, and pursuant to Iowa Code sections 455B.113 through 455B.115.

*Small Business Impact*

If the rulemaking will have a substantial impact on small business, include a discussion of whether it would be feasible and practicable to do any of the following to reduce the impact of the rulemaking on small business:

- Establish less stringent compliance or reporting requirements in the rulemaking for small business.
- Establish less stringent schedules or deadlines in the rulemaking for compliance or reporting requirements for small business.
- Consolidate or simplify the rulemaking's compliance or reporting requirements for small business.
- Establish performance standards to replace design or operational standards in the rulemaking for small business.
- Exempt small business from any or all requirements of the rulemaking.

If legal and feasible, how does the rulemaking use a method discussed above to reduce the substantial impact on small business?

The rulemaking does not have provisions for small businesses because any compliance data produced by a laboratory must be legally defensible.

*Text of Proposed Rulemaking*

ITEM 1. Rescind 567—Chapter 83 and adopt the following **new** chapter in lieu thereof:

CHAPTER 83  
LABORATORY CERTIFICATION

PART A  
GENERAL

**567—83.1(455B) Authority, purpose, and applicability.**

**83.1(1) Authority.** Pursuant to Iowa Code section 455B.113, a laboratory certification program is required for laboratories performing analyses of samples that are required to be submitted to the department as a result of Iowa Code provisions, rules, operation permits, or administrative orders. Pursuant to Iowa Code section 455B.114, the department may suspend or revoke the certification of a laboratory upon its determination that the laboratory no longer fulfills one or more of the requirements for certification.

**83.1(2) Purpose.** The purpose of these rules is to provide the procedures for laboratories to use to apply for and maintain certification, to establish laboratory certification fees, and to provide the appropriate methods and references for evaluating laboratory competence including the requirements for laboratories to become certified.

**83.1(3) Applicability to environmental program areas.** This chapter applies to the following laboratories:

*a. Water supply (drinking water).* All laboratories conducting drinking water analyses pursuant to 567—Chapters 40, 41, 42, and 43.

*b. Underground storage tanks.* All laboratories conducting underground storage tank (UST) analyses for petroleum constituents pursuant to 567—Chapter 135. Routine on-site monitoring conducted by or for UST owners for leak detection or a nonregulatory purpose is excluded from this requirement.

*c. Wastewater (nonpotable water).* All laboratories conducting analyses of wastewater, groundwater or sewage sludge (municipal biosolids), or manure pursuant to 567—Chapters 63, 65, 67, and 69.

*d. Solid waste and contaminated sites.* All laboratories conducting analyses of solid waste parameters pursuant to 567—Chapters 100 through 129, contaminated site parameters pursuant to 567—Chapters 133 and 137, and regulated substances other than petroleum parameters regulated under 567—Chapter 135.

**83.1(4) Exclusions.** Any parameter that must be analyzed immediately upon sample collection is excluded from the requirements of this chapter. Any samples collected or testing conducted that is not part of the specific monitoring required by the department for regulatory purposes are also excluded from the requirements of this chapter.

**567—83.2(455B) Definitions.**

*“Batch”* means environmental samples that are prepared, analyzed, or both together with the same process and personnel, using the same lot(s) of reagents. A preparation batch is composed of 1 to 20 environmental samples of the same quality systems matrix (water supply, wastewater, etc.), meeting the above-mentioned criteria and with a maximum time between the start of processing of the first and last sample in the batch to be 24 hours. An analytical batch is composed of prepared environmental samples (extracts, digestates or concentrates) that are analyzed together as a group. An analytical batch can include prepared samples originating from various quality system matrices and can exceed 20 samples. If there is a conflict between this definition and the requirements of an approved method, the more stringent requirements shall apply.

*“Certified”* means a laboratory demonstrates to the satisfaction of the department its ability to consistently produce valid data within the acceptance limits as specified within the department’s requirements for certification and meets the minimum requirements of this chapter and all applicable regulatory requirements. A laboratory may be certified for an analyte, an analytical series, or an environmental program area, except in the UST program area, where certification for individual analytes is not allowed.

*“Corrective action report”* or *“CAR”* means documentation that demonstrates a laboratory has satisfied cited deficiencies or deviations.

*“Critical staff”* means an analyst who is the only person at a laboratory performing a particular function or analysis (no backup analyst).

*“Demonstration of capability”* or *“DOC”* means a procedure used to demonstrate the ability of an analyst to generate acceptable accuracy for each method the analyst performs.

*“Discharge monitoring report-quality assurance”* or *“DMRQA”* means an effluent performance test study regulated by the National Pollutant Discharge Elimination System (NPDES) program and administered by the EPA.

*“Environmental program area”* means the water supply (drinking water) program, underground storage tank program, wastewater program (nonpotable water), or solid waste and contaminated site program pursuant to 83.1(3).

*“Essential staff”* means an analyst who is primarily responsible for a particular analysis/program and handles the administrative or technical tasks associated with the analysis or program.

*“Holding time”* means the maximum time a sample may be held before beginning of an associated analysis.

*“Level of quantitation”* or *“LOQ”* means the analyte concentration that produces a signal sufficiently stronger than the blank, such that it can be detected with a specified level of uncertainty during routine operations.

*“Manual for the Certification of Laboratories Analyzing Environmental Samples for the Iowa Department of Natural Resources”* is incorporated by reference in this chapter.

Chapter 1 pertains to certification of laboratories analyzing samples of drinking water and incorporates by reference the Manual for the Certification of Laboratories Analyzing Drinking Water, 5th edition, January 2005, EPA document 815-R-05-004; Supplement 1, June 2008, EPA 815-F-08-006; and Supplement 2, November 2012, EPA 815-F-12-006.

Chapter 2 (2020), pertains to laboratories analyzing samples for the UST program.

Chapter 3 (2017), pertains to laboratories analyzing samples for wastewater and sewage sludge disposal programs.

Chapter 4 (2017), pertains to laboratories analyzing samples for the solid waste and contaminated site programs.

*“Method detection limit”* or *“MDL”* means the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

*“National environmental laboratory accreditation program”* or *“NELAP”* means the third-party accreditation program that is managed by the NELAC Institute (TNI), a 501(c)(3) nonprofit organization, and that is based on consensus standards representing the best professional practices for laboratories.

*“Quality assurance plan”* or *“QA plan”* means a document that describes the key elements of laboratory functions that provide quality testing results to the client. The key elements include but are not limited to a description of the laboratory organizational structure and lines of responsibility; sampling requirements, procedures, and locations; sampling handling procedures; calibration procedures and frequencies; procedures for data reduction, validation, and reporting; quality control procedures including type, frequency and acceptance criteria; procedure(s) used to determine data precision and accuracy; corrective action contingencies; and preventative maintenance and schedules.

*“Proficiency test sample”* or *“PT sample”* means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

*“Provisional certification”* or *“provisional status”* means a laboratory has deficiencies, which must be corrected within the specified time frames in 83.6(3) *“d,”* but demonstrates to the satisfaction of the department its ability to consistently produce valid data within the acceptance limits as specified within the department’s certification requirements.

*“Revoked certification”* means a laboratory no longer fulfills the requirements of this chapter, and certification is revoked by the director upon determination of the director that the laboratory no longer fulfills the requirements for certification (Iowa Code section 455B.114).

*“Signature authority”* means the person with the managerial, educational, and technical experience authorized to sign analytical reports on behalf of the laboratory.

*“Standard operating procedure”* or *“SOP”* is a set of written instructions that describe, in detail, how to perform a laboratory method or process safely, consistently, and effectively.

*“SHL”* means the State Hygienic Laboratory at the University of Iowa.

*“Suspended certification”* means a temporary suspension of certification for a laboratory, conditional upon meeting the time frames in 83.6(5) *“d”* for the correction of the deficiency.

*“Temporary certification”* or *“temporary status”* means short-term transitional certification granted to a new laboratory that has no history of generating compliance data.

*“Traceability”* means the unbroken chain of events in the process of a sample being collected, received at the laboratory, prepared for analysis, analyzed, data reviewed and reported, and final disposal of the sample.

PART B  
CERTIFICATION PROCESS

**567—83.3(455B) Application for laboratory certification.**

**83.3(1) Application forms.** Application for laboratory certification shall be made on department form 542-0492 (June 2021) and shall be accompanied by the nonrefundable fee specified in 83.3(2). The application for certification renewal shall be made at least 60 days prior to the certification expiration date. The department may require submission of additional information necessary to evaluate the application. All documentation and fees must be submitted to the department prior to the

on-site audit. Failure to submit a complete application may result in denial of the renewal or certificate update.

**83.3(2) Fees and expenses.**

*a.* A nonrefundable fee for the administration, completion of on-site laboratory surveys and assessments, and enforcement of laboratory certification requirements shall be paid with the certification application.

(1) The on-site audit will not be conducted and certification will not be issued until the fees and expenses are paid and all other certification requirements are met. The fee for certification will not be refunded if an on-site audit is not performed.

(2) Out-of-state laboratories will be responsible for paying the expenses of an on-site audit, in addition to the standard certification fee if required, and the department or its agent will bill the out-of-state laboratory directly for the expenses.

(3) When a laboratory's certification status is changed to provisional or suspended and the period for correcting deficiencies extends beyond the certification period, the laboratory must continue to pay the required fees in order to maintain its certification status.

(4) Additional fees will be assessed for the following, and the department or its agent will bill the laboratory directly.

1. The laboratory is responsible for paying for any additional on-site audits, at a fee of \$300 per audit. An example of this is when an additional on-site audit is required when a laboratory seeks certification for an entirely new set of parameters for which it had previously not been certified.

2. When an on-site audit is required to inspect for deficiencies that the laboratory must correct, the fee is \$500 per audit.

*b.* Where a laboratory is certified for the same analyte in more than one environmental program area, the laboratory must meet all the applicable certification requirements in addition to the payment of the fees.

*c.* In general, the department does not certify calculations. However, it is acceptable to report calculated results to clients and for regulatory reporting purposes.

*d.* Applicable fees shall be based on the type of analytical service provided as follows:

ANALYTICAL GROUP	REGULATORY PROGRAM & PARAMETERS <sup>1</sup>	FEE
Asbestos	SDWA	\$400
Basic Drinking Water	SDWA (includes total coliform bacteria, <i>E. coli</i> , heterotrophic plate count, nitrate, nitrite, & fluoride)	\$800
Basic Wastewater	CWA (includes BOD <sub>5</sub> , CBOD <sub>5</sub> , TSS, & ammonia)	\$400
Bacteria	CWA (includes total coliform, fecal coliform, and <i>E. coli</i> )	\$800
	SDWA (basic drinking water) & CWA combined	\$1,300
Dioxin	SDWA	\$800
Effluent Toxicity Testing	CWA	\$800
Inorganics, including metals	CWA metals, inorganic compounds, and physical characteristics (\$400 per analyte up to a maximum of \$1,600)	\$400 to 1,600
	SDWA (includes metals, ammonia, cyanide, fluoride, bromate, bromide, chlorite, total	\$1,600

ANALYTICAL GROUP	REGULATORY PROGRAM & PARAMETERS <sup>1</sup>	FEE
	organic carbon & other inorganic chemicals)	
	SW/CS	\$1,600
	CWA & SDWA combined	\$2,400
	CWA & SW/CS combined	\$2,400
	CWA, SDWA, and SW/CS combined	\$2,800
Radionuclides	CWA	\$400
	SDWA (includes gross alpha, gross beta, photon emitters, radium, strontium, tritium, & uranium)	\$400
	SDWA & CWA combined	\$650
Synthetic Organic Chemicals (SOC)	CWA	\$1,600
	SDWA	\$1,600
	SW/CS	\$1,600
	CWA & SDWA combined	\$2,400
	CWA & SW/CS combined	\$2,400
	CWA, SDWA, and SW/CS combined	\$2,800
Volatile Organic Chemicals (VOC)	CWA	\$1,600
	SDWA	\$1,600
	SW/CS	\$1,600
	CWA & SDWA combined	\$2,400
	CWA & SW/CS combined	\$2,400
	SDWA & SW/CS combined	\$2,400
	CWA, SDWA, & SW/CS combined	\$2,800
Underground Storage Tank Program Methods (UST)	OA1 & OA2 for USTCWA & SW/CS programs	\$1,600
	OA1, OA2, & Air Gas for UST CWA, & SW/CS programs	\$2,000
Other analytes not included in the above categories	SDWA, CWA, UST, or SW/CS	\$400 per analyte

<sup>1</sup>CWA: Analysis of wastewater samples for the federal Clean Water Act.

SDWA: Analysis of drinking water samples for the federal Safe Drinking Water Act.

SW/CS: Analysis of water, soil, or solid samples for the solid waste or contaminated sites programs.

UST: Analysis of water and soil samples for the underground storage tank program.

e. Fees shall be paid by cashier's check, check, money order, credit card, electronic payment, or other means acceptable to the department, made payable to the Iowa department of natural resources laboratory certification program. Credit card or electronic payment may incur an additional fee. Purchase orders are not an acceptable form of payment. The fee shall be paid at least 60 days prior to the expiration date of any certification held by a laboratory. If a laboratory does not submit the application and fee by the expiration date, the laboratory is prohibited from conducting certified analytical tests until the application and fee are received by the department.

**83.3(3) Reciprocity.** Reciprocal certification of out-of-state laboratories by Iowa, and of Iowa laboratories by other states, is allowed. If the reciprocal state has a certification program for the area the lab is applying for in Iowa, the laboratory is required to obtain certification from their reciprocal

state prior to receiving certification from Iowa. A laboratory must meet all Iowa certification criteria and pay all applicable fees as listed in this chapter. Any laboratory that is granted reciprocal certification in Iowa using primary certification from another state or provider is required to report any change in certification status from the accrediting state or provider to the department within 15 days of notification. A copy of the assessment report including the laboratory's approved corrective actions must be submitted to the department within 15 days after it is approved by the resident state or third-party accreditation provider. A laboratory that loses primary certification, either in its resident state program or third-party accreditation program, will also immediately lose certification for the same program area and parameters in Iowa, pursuant to 83.6(6) "a"(8).

*a. Out-of-state laboratories.* Where an out-of-state laboratory has received an on-site audit within its own state, the fee for certification shall not be reduced if an on-site audit is not performed by Iowa.

*b. Third-party accreditation.* The department will accept third-party accreditation from a state NELAP accreditation authority. The laboratory must provide the most recent on-site assessment and approved corrective action report.

**567—83.4(455B) Procedures for new laboratory certification or changes in certification.**

Laboratories that wish to become certified to conduct testing for an analyte or a method after the deadline for initial certification has passed, and any laboratory seeking initial certification, shall follow the procedures specified in rule 567—83.5(455B) for laboratory recertification. For changes in certification, the relevant fee must accompany the application where appropriate. New laboratories with no history of generating compliance data in any program area will be issued a temporary certification for a period of up to six months after the initial on-site audit. The laboratory may be re-audited in person or a document review may be conducted at the discretion of the SHL auditor(s).

**567—83.5(455B) Laboratory recertification.** Laboratories shall be recertified every two years after initial certification. Applications for recertification must be on department form 542-0492 (June 2021) and must be submitted at least 60 days prior to the renewal date. Applications shall be accompanied by the nonrefundable fee specified in 83.3(2). To be recertified, laboratories must meet the following requirements.

**83.5(1) Approved methodology.** Laboratories must use methods promulgated or approved by the EPA or by the department. Notwithstanding an approval by the EPA, the department may use discretion in determining which methods may be used in Iowa. A laboratory may not analyze and report data from samples collected for an environmental program area until certified in that area. The laboratory shall submit supporting documentation such as calibration curves, MDL studies, LOQs, or other information upon request. The following are adopted by reference:

*a. Drinking Water* – 40 CFR Part 141 Subpart C (Monitoring and Analytical Requirements) as amended February 5, 2024; 40 CFR Part 141.74 (Filtration and Disinfection) as amended February 13, 2013; 40 CFR Part 141.89 (Control of Lead and Copper) as amended January 15, 2021; 40 CFR Part 141.131 (Disinfection By-Products) as amended February 13, 2013; 40 CFR Part 141.402 (Groundwater Rule) as amended February 13, 2013; 40 CFR Part 141.704 (Enhanced Treatment for Cryptosporidium) as amended June 29, 2009; 40 CFR Part 141.852 (Revised TCR) as amended February 26, 2014; 40 CFR Part 901 (PFAS) as amended through June 25, 2024; 40 CFR Part 143.4 (Secondary Regulations) as amended June 29, 2009.

*b. Wastewater (nonpotable water)* – 40 CFR Part 136, June 17, 2024.

*c. Municipal biosolids (sewage sludge)* – 40 CFR Part 136, as amended July 19, 2021, and Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846 Update VII) as amended July 30, 2021.

*d. Solid waste and contaminated sites* – Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846 Update VII) as amended July 30, 2021.



*e. Underground storage tanks* – Iowa Methods OA-1 and OA-2, December 10, 2019, and EPA method 8260 – Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846 Update VII) as amended July 30, 2021.

**83.5(2) Proficiency testing samples.** Certified laboratories must satisfactorily analyze PTs at least once every 12 months for each analyte by each method in each program area for which the laboratory intends to retain certification unless a PT sample is not available for the particular analyte, method, or program area. Results must be submitted electronically by the PT provider to the department at [labcert@dnr.iowa.gov](mailto:labcert@dnr.iowa.gov) along with a statement of the method used once the study is published. The laboratory must maintain records of all PT samples including summary pages, explanations and footnotes, pursuant to the recordkeeping requirements in 83.5(8) “b.”

*a. Test requirements.*

(1) PT samples shall be analyzed in accordance with the laboratory's routine standard operating procedures using the same quality control, acceptance criteria, and staff as used for the analysis of routine environmental samples. PT samples may not be analyzed multiple times for the purpose of averaging results to be reported to the PT provider.

(2) The PT sample shall be analyzed one time by a single analyst or single analytical team, and then reported to the PT provider. The PT sample shall be analyzed by a different analyst(s) or analytical team in following years, if there are multiple analysts in the laboratory.

(3) Once the results of a PT sample are submitted to the PT provider, remaining PT samples may be used as check samples or for demonstration of capability of analysts.

(4) Laboratories that receive unacceptable PT result(s) shall notify the department within 10 days of the unacceptable result(s).

*b. Performance testing providers and acceptance limits.* All PT samples must be obtained from a NELAP accredited provider. Performance test results shall be evaluated using criteria from NELAP field of proficiency tables except where noted otherwise. If there is a difference between the NELAP field of proficiency tables and federal rules, the rules shall prevail. Approved PT vendors and fields of proficiency tables may be found at [nelac-institute.org](http://nelac-institute.org).

**83.5(3) Notification of major changes.** Laboratories must notify the department, in writing, of major changes in critical or essential personnel, equipment, laboratory location, or other major change that might alter or impair analytical capability. The department may issue a notice of violation based on cause.

*a. Major equipment.* Laboratories must notify the department 90 days, whenever possible, prior to installation of major equipment when the technology is not currently being utilized by the laboratory. This includes, but is not limited to, inductively coupled plasma spectrophotometers, mass spectrometers, gas chromatographs, liquid chromatographs, and continuous spectrophotometers. The installation of a new water bath or incubator does not need to be reported. If requested, the laboratory must submit the DOC to the department for review and approval prior to reporting compliance data using the new equipment.

*b. Laboratory relocation.* Laboratories must notify the department 90 days prior to a laboratory relocation. Laboratories must complete a DOC for each major piece of equipment once it has been relocated to the new laboratory. If requested, the laboratory must submit the DOC to the department for review and approval prior to reporting compliance data.

*c. Personnel changes.* Laboratories must notify the department 30 days prior to, whenever possible, but in no circumstance later than ten days after, the departure of critical or essential personnel. If requested, a DOC must be submitted to the department before the laboratory may report environmental data. DOC records for all staff must be maintained on file for review by an auditor. The loss of a critical staff person means the lab will not be able to analyze samples and must subcontract samples for a specific method(s) or program area(s) until another person is hired to perform the particular function or analysis and has completed an initial DOC. The loss of an essential staff person means that existing staff must undergo additional training before they can assume the role.

*d. Laboratory shutdown.* Laboratories must notify the department within five days if the laboratory has shut down due to a natural or man-made disaster, a cybersecurity incident, or other occurrence that renders the laboratory unable to perform analyses for Iowa clients.

*e. Data quality issues.* If a laboratory becomes aware that there are data quality issues that affect the result(s) for one or more analytes, the laboratory must notify the department within five days. The laboratory must resolve the issues, submit a corrective action report, and submit an amended analytical report to the client and the department within 30 days.

**83.5(4) Annual requirements.** Laboratories are required to perform the following updates on an annual basis. Documentation of these updates must be maintained in paper or electronic form, or a combination thereof, pursuant to the recordkeeping requirements in 83.5(8)“b” and shall be made available during the on-site audit, or if requested by the department.

- a.* Balance maintenance and weight verification;
- b.* Working thermometer verification;
- c.* Review the QA plan and document the date, reviewer, and any changes;
- d.* Review SOPs, and document the review and any changes to the SOPs. Confirm that QC requirements are performed with each analysis and that additional QC requirements are conducted monthly, quarterly, or annually as needed;
- e.* Review sample handling, preservation and storage requirements if they are not addressed in the SOP;
- f.* Conduct a continuing DOC for analysts;
- g.* Run and document calibration curves;
- h.* Perform annual PTs;
- i.* Review equipment maintenance schedules, perform scheduled maintenance, and document the maintenance performed;
- j.* Replace and document the source of reference cultures used for microbiological analyses; and
- k.* Check spreadsheet calculations manually.

In addition to the above requirements, it is recommended that the laboratory review the safety plan with all employees and conduct an internal audit annually.

**83.5(5) Site audits.**

*a. SHL certification.* The department has designated the SHL as its appraisal authority for laboratory certification. The SHL is responsible for attaining and maintaining laboratory certification for the SDWA program that is acceptable to the EPA. The SHL shall obtain accreditation from a state NELAP accreditation authority in all department program areas specified in 83.1(3), where available. The SHL shall forward audit reports to the department according to the time frame in 83.3(3). The SHL is not required to pay the fees for laboratory certification.

*b. On-site audits.* Laboratories must consent to a periodic site audit by the department or its designee, at least every two years. However, on-site audits may be conducted more frequently if the laboratory undergoes a major change that may alter or impair analytical capability, fails a PE sample analysis, or if the department questions an aspect of data submitted that is not satisfactorily resolved. Laboratories certified by reciprocity generally are not required to have an on-site audit conducted by the SHL. However, the department and the SHL reserve the right to conduct an on-site audit.

**83.5(6) Period of validity.**

*a.* Certification shall be valid for a period not to exceed two years from the date of issuance. Certification shall remain in effect until certification is either renewed or revoked, provided a laboratory has submitted a timely and complete application, and paid the appropriate fee.

*b.* Laboratories that have not submitted a timely and complete application and have not paid the appropriate fee may not report compliance data if their certification has expired.

**83.5(7) Reporting requirements.** Laboratories may not analyze or report sample results for any analyte, analytical series, or environmental program area until an initial certification status of certified or temporary has been granted by the department. Any data generated before certification status is granted will be considered invalid for compliance purposes. A laboratory with provisional status may

analyze and report analyses for compliance purposes. A certified laboratory may contract analyses to another certified laboratory. The responsibility lies with the primary certified laboratory contracting for services to verify that the secondary contracting laboratory is certified by the department and to ensure that reporting requirements and deadlines are met.

*a. All program areas.* Laboratories that generate data for clients must list all of the following elements on paper or electronic reports provided to clients.

- (1) Iowa certified laboratory number;
- (2) Laboratory name, address, and phone number;
- (3) Laboratory sample ID;
- (4) Client sample location ID;
- (5) Regulatory ID number, such as a permit number;
- (6) Date and time of sample collection;
- (7) Date and time of sample receipt and temperature (may be recorded on chain of custody, receiving sheet, or comments);
- (8) Sample collector name;
- (9) Date and time of analysis;
- (10) Analyst name;
- (11) Matrix;
- (12) Analyte;
- (13) Analytical method used;
- (14) The LOQ;
- (15) Analysis result;
- (16) Units of measure;
- (17) Subcontracting laboratory or laboratories, if used;
- (18) Signature of signatory authorized to sign analytical reports; and
- (19) Chain of custody records.

*b. Additional reporting for all program areas.*

- (1) The use of whiteout to correct errors is strictly prohibited.
- (2) Laboratory records and final reports shall be recorded in ink or electronically signed.
- (3) A laboratory shall not express an analytical result as either:
  1. Less than the MDL; or
  2. As zero, unless specifically required by rule.
- (4) Laboratories reporting data for the purpose of a monthly operation report (MOR) or discharge monitoring report (DMR) must follow the instructions and use the templates specified by the program area(s).

*c. Water supply program.*

(1) Certified laboratories must report all analytical test results for all public water supply systems (PWS) using the electronic reporting system provided by the department. New laboratories shall be fully compliant with electronic data reporting requirements no later than 45 days after the laboratory begins analysis of compliance samples. If a PWS is required by the department to collect and analyze a sample for an analyte not normally required by 567—Chapters 41 and 43, the laboratory testing for that analyte must also be certified and report the results of that analyte to the department. A PWS may request that a laboratory add additional analytes for analysis after samples are received by the laboratory, but may not remove an analyte originally requested after the laboratory has initiated analysis of those analytes without written department approval. It is the laboratory's responsibility to correctly assign and track the sample identification number, the facility ID, and source/entry point data for all reported samples.

1. The following are examples of sample types for which data results must be reported:
  - Routine: a regular sample that includes samples collected for compliance purposes at various sampling frequencies;

- Repeat: a sample that must be collected after a positive result from a routine or previous repeat total coliform sample, per 567—paragraph 41.2(1)“j.” Repeat samples must be analyzed by the same laboratory that analyzed the associated original routine sample;

- Confirmation: a sample that verifies a routine sample, normally used to determine compliance with a health-based standard;

- Special: a nonroutine sample, such as raw, plant, and troubleshooting samples, which cannot be used to comply with monitoring requirements assigned by the department;

- Maximum residence time: a sample collected at the maximum residence time location in the distribution system, usually for disinfection byproduct measurement; and

- Replacement: a sample that replaces a missed sample from a prior monitoring period resulting in a monitoring violation.

2. The following additional types of data must be reported to the department:

- MOR data that is required by the department to demonstrate compliance with public health standards; and

- Raw water sampling results specifically covered by 567—Chapters 40 to 43 for new surface water or groundwater sources, or reconstruction of groundwater sources.

3. The following are examples of data results that are not required to be reported by a laboratory to the department:

- Routine MOR data; or

- Distribution samples for the Total Coliform Rule 567—subrule 41.2(1) for water main repair or installation.

4. The sample type cannot be changed after submittal to the laboratory, without written department approval. The prescreening, splitting, or selective reporting of compliance samples is not allowed.

(2) Certified laboratories must report all analytical results to the PWS for which the analyses were performed.

(3) Analytical results must be reported to and received by the department by the seventh day of the month following the month in which the samples were analyzed.

(4) In addition to the monthly reporting of analytical results, the following results must be reported within 24 hours of the completion of the analysis, including data reduction, to the department by email or other acceptable method acceptable to the department, and to the PWS for which the analyses were conducted:

1. Results of positive routine coliform bacteria samples, and all repeat and follow-up samples; and

2. Results of any contaminant that exceeds public drinking water standards (maximum contaminant level, treatment technique, action level, or health advisory), and any subsequent confirmation samples.

Results available outside of routine business hours must be reported to the department’s Environmental Emergency Reporting Hotline at 515.725.8694.

(5) If requested by the department, certified laboratories shall report their MDLs, LOQs, and any other pertinent information when reporting results for PWSs.

*d. UST program.* No additional information.

*e. Wastewater program.* No additional information.

*f. Solid waste and contaminated site programs.* No additional information.

**83.5(8) Recordkeeping.**

*a. Appraisal authority.* The laboratory certification program appraisal authority must retain the records for on-site laboratory audits and certification program reviews. The records must be maintained in an easily accessible manner for a period six years, including the last two on-site audits. The records include correspondence used to determine compliance with the laboratory certification program requirements, and may include checklists, corrective action reports, final reports, certificates, PT study results, and any other related documents.

*b. Laboratories.* Laboratories shall retain laboratory records in paper or electronic form or a combination of both. Laboratory records include, but are not limited to, calibration curves; raw data; calculations and supporting data such as chromatographs; analytical results; lists of chemicals and equipment used; QA plans; SOPs; and PT results. Laboratory records shall be retained according to the following schedule:

- (1) Drinking water: microbiology and turbidity, five years; chemical, ten years; lead and copper rule, twelve years.
- (2) Wastewater: all analytes, three years. Federal DMRQA reports, three years.
- (3) Sewage sludge (municipal biosolids): all analytes, five years.
- (4) Solid waste and contaminated sites: all analytes, five years.
- (5) Underground storage tanks: all analytes, five years.

**567—83.6(455B) Criteria and procedure for provisional, suspended, and revoked laboratory certification.**

**83.6(1)** *Voluntary withdrawal of certification.* A laboratory may voluntarily withdraw certification for an analyte, a related analytical series, an environmental program area, or the entire laboratory at any time in lieu of receiving a downgraded certificate with a provisional, suspended, or revoked status.

**83.6(2)** *Provisional certification criteria.*

*a.* The department may downgrade certification to provisional status based on cause. The reasons for which a laboratory may be downgraded to provisionally certified status include, but are not limited to, the following list.

- (1) Failure to analyze a performance evaluation (PT) sample annually within acceptance limits;
- (2) Failure to notify the department within the time period specified in 83.5(3) of changes in essential personnel, equipment, laboratory facilities, or other major changes that might impair analytical capability;
- (3) Failure to satisfy the department that the laboratory is maintaining the required standard of quality based on an on-site audit;
- (4) Failure to report compliance data in a timely manner to the department or the client, thereby preventing timely compliance with environmental program regulations.

*b.* The department may assess an administrative penalty for a laboratory's failure to comply with the laboratory certification or reporting requirements.

**83.6(3)** *Provisional certification procedure.*

*a. Laboratory notification.* If a laboratory is subject to a downgrade to provisional status on the basis of 83.6(2), the department will notify the laboratory or owner in writing of the downgraded status. Certification may be downgraded to provisional for an analyte, a related analytical series, an environmental program area, or the entire laboratory.

*b. Reporting.* A provisionally certified laboratory may continue to analyze samples for compliance purposes.

*c. Right to appeal.* There is no appeal for this process, as it does not affect a laboratory's ability to analyze compliance samples and report to the department.

*d. Correction of deficiencies.*

(1) Once the department notifies a laboratory in writing that it has been downgraded to provisionally certified status, the laboratory must correct the problem within the following time frames, unless a written extension is obtained from the department. If the problem is not corrected, the laboratory is subject to suspension for that analyte, related analytical series, environmental program area, or the entire laboratory.

1. Unacceptable PT sample result within two months of notification.
2. Procedural deficiency within three months of notification.
3. Administrative deficiency within three months of notification.
4. Equipment deficiency within three months of notification.

(2) The laboratory shall submit a corrective action report(s), including documentation that demonstrates the laboratory has complied with the required corrective actions.

*e. Reinstatement.* Certification will be reinstated when the laboratory can demonstrate that all conditions for laboratory certification have been met to department's satisfaction and that the deficiencies that caused provisional certification status have been corrected. The SHL may conduct an on-site audit to verify that corrective actions have been implemented.

**83.6(4) Suspended certification criteria.**

*a.* The department may downgrade certification to suspended status based on cause. The reasons for which a laboratory may be downgraded to suspended status include, but are not limited to, the following:

- (1) Failure to analyze a PT sample annually within acceptance limits;
- (2) Failure to correct previously identified deficiencies, which resulted in provisional certification status, within the prescribed time frames of 83.6(3) "d"(1);
- (3) Failure to satisfy the department that the laboratory is producing accurate data;
- (4) Failure to use required analytical methodology for analyses submitted to the department; or
- (5) Repeated failure to report compliance data in a timely manner.

*b.* Administrative penalty. The department may assess an administrative penalty for a laboratory's failure to comply with the laboratory certification or reporting requirements.

*c.* Emergency certification suspension. The department may suspend certification without providing notice and opportunity to the laboratory to be heard if the department finds that the public health, safety, or welfare imperatively requires emergency action, and incorporates a finding to that effect in its administrative order, pursuant to 561—Chapter 7.

**83.6(5) Suspended certification procedure.**

*a. Laboratory notification.* If a laboratory is subject to downgrading to suspended status on the basis of 83.6(4), the department will notify the laboratory or owner in writing of its intent to suspend certification in accordance with 561—Chapter 7. Certification may be suspended for an analyte, a related analytical series, an environmental program area, or the entire laboratory.

*b. Reporting.* Once the suspension is effective, a laboratory must immediately discontinue analysis and reporting of compliance samples, may not analyze or report samples for compliance with departmental standards, and must notify the laboratory's Iowa regulated clientele and other state certifying agencies of the change of the laboratory certification status within three days. Any results generated during the period of suspension may not be used for compliance purposes by the department.

*c. Right to appeal.*

(1) The laboratory may appeal this decision by filing a written notice of appeal and request an administrative hearing with the department director within 30 days of receipt of the notice of suspension of certification. Contested case procedures under 561—Chapter 7 shall govern administration of the appeal. The appeal must identify the specific portion(s) of the department action being appealed, be supported with a statement of the reason(s) for the challenge, and be signed by a responsible official from the laboratory.

(2) If no timely notice of appeal is filed, suspension is effective 30 days after receipt of the notice of suspension unless an emergency suspension order is in effect.

*d. Correction of deficiencies.*

(1) Once the department notifies a laboratory in writing that it has been downgraded to suspended status, the laboratory must correct the problem within the following timetable, unless a written extension is obtained from the department. If the problem is not corrected, the laboratory is subject to revocation for that analyte, related analytical series, environmental program area, or the entire laboratory.

1. Unacceptable PT sample result within two months of notification.
2. Procedural deficiency within three months of notification.
3. Administrative deficiency within three months of notification.

4. Equipment deficiency within three months of notification.

(2) The laboratory shall review the problems cited and, within the time period designated by the department, submit a corrective action report(s) including documentation that demonstrates the laboratory has complied with the required corrective actions. The department shall consider the adequacy of the response and notify the laboratory of its certification status and may follow up to ensure that corrective actions have been taken.

*e. Reinstatement.*

(1) Fee.

1. The laboratory will not be required to pay an additional fee if recertification affects an analyte or related analytical series, provided that:

- The laboratory is currently certified for other analytes, or
- A fee was paid within the two-year certification period for that related analytical series and the laboratory is certified for other parameters within that related analytical series.

2. A fee is required when suspension affects a related analytical series, effectively deleting that fee group from certification (such as all microbiological parameters in SDWA-MICRO), an environmental program area, or the entire laboratory. A fee is also required if an additional on-site audit is required.

(2) Certification will be reinstated when the laboratory can demonstrate that all conditions for laboratory certification have been met and that the deficiencies that caused the suspension have been corrected. This may include an on-site audit, successful analysis of unknown samples, or any other measure that the department deems appropriate.

**83.6(6)** *Revoked certification criteria.*

*a.* The department may revoke certification for cause. The reasons for which a laboratory's certification may be revoked include, but are not limited to, the following:

- (1) Failure to correct deficiencies according to the time period specified in 83.6(5) "d"(1);
- (2) Submission of a PT sample to another laboratory for analysis and reporting the data as its own;
- (3) Falsification of data or other deceptive practices;
- (4) Failure to use required analytical methodology for analyses submitted to the department;
- (5) Failure to satisfy the department that the laboratory is maintaining the required standard of quality based on the on-site audit;
- (6) Persistent failure to report compliance data to the regulated client or the department in a timely manner, thereby preventing compliance with state regulations and endangering public health;
- (7) Subverting compliance with state regulations by actions such as changing the sample type for a noncompliance sample to a compliance sample after its submission to the laboratory, allowing compliance samples to be changed to other noncompliance sample types, or selective reporting of split sample results; or
- (8) For laboratories certified through a reciprocal agreement with another state or third-party accreditation program, loss of certification in either the resident state or third-party accreditation program is cause for immediate revocation of certification in Iowa for the same parameters or program areas for which certification was lost.

*b.* The department may assess an administrative penalty for a laboratory's failure to comply with the laboratory certification or reporting requirements.

*c.* Emergency revocation. The department may revoke certification without providing notice and opportunity to the laboratory to be heard if the department finds that the public health, safety, or welfare imperatively requires emergency action, and incorporates a finding to that effect in its administrative order, pursuant to 561—Chapter 7.

*d.* Laboratory-requested revocation (withdrawal of certification). The department may revoke certification upon receipt of a written request by the certified laboratory for removal from the certification program.

**83.6(7)** *Revoked certification procedure.*

*a. Laboratory notification.* Except for the instance when the laboratory voluntarily requests revocation in 83.6(6)“d,” if a laboratory is subject to revocation on the basis of 83.6(6), the department will notify the party in writing of its intent to revoke certification in accordance with 561—Chapter 7. Certification may be revoked for an analyte, a related analytical series, an environmental program area, or the entire laboratory.

*b. Reporting.* Once revocation is effective, a laboratory must immediately discontinue analysis and reporting of compliance samples, shall not analyze or report samples for compliance with departmental standards, and must notify the laboratory’s Iowa-regulated clientele and other state certifying agencies of the change of the laboratory certification status within three business days of receipt of the final notice. Any results generated after revocation may not be used for compliance purposes by the department.

*c. Right to appeal.* When a laboratory requests revocation pursuant to 83.6(6)“d,” the revocation will be issued promptly and will be effective immediately with no appeal process.

(1) The laboratory may appeal this decision by filing a written notice of appeal and request for an administrative hearing with the department director within 30 days of receipt of the notice of revocation of certification. Contested case procedures under 561—Chapter 7 shall govern further administration of the appeal. The appeal must identify the specific portion(s) of the department action being appealed, be supported with a statement of the reason(s) for the challenge, and be signed by a responsible official.

(2) If no timely notice of appeal is filed within the 30-day time period, revocation is effective 30 days after receipt of the notice of revocation.

*d. Reinstatement.* A laboratory that has had its certification revoked may apply for certification in accordance with rule 567—83.3(455B) once the deficiencies have been corrected.

These rules are intended to implement Iowa Code sections 455B.113 through 455B.115.