



ASSOCIATION OF BOARDS OF CERTIFICATION (ABC) MODEL STANDARDS CONFORMITY ASSESSMENT

Submitted to
Iowa Operator Certification Program

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About the Model Standards Conformity Assessment

In 1918, the first operator certification program in North America was implemented. Over the next 50 years, more states and provinces would follow suit, all of them developing programs as they thought best with little guidance or concern for uniformity. Though at the core these programs shared an identical goal, they have differed in the pursuit of that goal since their creation. A resource for standardization and collaboration between these programs was needed, not merely for the sake of uniformity, but also to provide the opportunity for greater assurances of public health and environmental protection.

To fill this need, the Association of Boards of Certification (ABC) was formed in 1972 to be a resource for all certification programs – to advance the quality and integrity of operator certification in a way that would be of benefit to all certification programs, public health, and the environment. Though ABC has carried out its mission in many different ways over its more than 40-year history, few have so perfectly embodied that mission as ABC's *Model Standards of Operator Certification*.

ABC's *Model Standards* are a comprehensive industry resource designed to assist certifying authorities in reviewing, benchmarking, and bettering their certification programs by identifying operator certification best practices and aligning them to national and international certification standards. The *Model Standards of Operator Certification* was authored by a group of industry stakeholders – operators, certification officers, regulators, and trainers representing both ABC members and non-members. The document has been peer-reviewed by stakeholders representing state and provincial certification programs, oversight authorities, and other industry associations across the United States and Canada. The industry-developed *Model Standards of Operator Certification* provide a framework for what a first-tier program should strive to be and do.

ABC has created the Model Standards Conformity Assessment Service to assist operator certification authorities in critically reviewing their programs against the industry standards embodied in the *Model Standards of Operator Certification*. Each conformity assessment is carried out by a certification subject matter expert (SME) and ABC staff who evaluate the assessed certification program against each Model Standard. This report details the findings of the assessment of the Iowa Operator Certification Program as well as areas in which the Program excels or has opportunities for improvement.

The purpose of this conformity assessment is not to evaluate compliance with the requirements established by the United States Environmental Protection Agency (EPA) or other such entities, but is to identify possible improvements in program administration, processes, and procedures.

General Summary of Findings

The Iowa Operator Certification Program, instituted by the Iowa Department of Natural Resources (DNR), certifies more than 3,500 operators in water treatment, distribution, and wastewater treatment operations. These certifications are mandatory in the State of Iowa for those in responsible charge of water treatment, distribution, or wastewater treatment systems. The Program also issues a number of other mandatory certifications; however, they are outside the scope of the *Model Standards* and this conformity assessment.

The external conformity assessment of the Iowa Operator Certification Program was conducted August 6-7, 2013 against ABC's *Model Standards of Certification, 1st Edition*. The findings of this program assessment are based on an analysis of program regulations, internal reports, policy documents, and other program documentation. In addition to extensive on-site discussions with program staff, assessors were also able to witness a number of program processes firsthand. Throughout this process, the assessors observed two general trends influencing the Program's ability to conform to the Model Standards.

1. The Program employs numerous critical practices that are not supported by regulation. The Program should explore options to codify these practices in the interest of creating a legal backing for its practices and for improving program continuity.
2. As with any governmental entity, the Program is subject to political forces and the bureaucratic process which have forced the Program to alter certain aspects of its process due to political directives. Ramifications have included the formal dissolution of the Program's regulatory board, the alteration of policies, and prevention of desired changes to rule or implemented practice. The Program has adapted to these challenges by creating an advisory board and determining alternative methods to realize program goals outside of formal regulation. These circumstances should not be noted as something by which Program is uniquely affected, as it is undoubtedly a characteristic of any certification program serving a government.

As discussed in greater detail in the following pages, the assessors found the Iowa Operator Certification Program to meet or exceed the majority of ABC's Model Standards of Operator Certification; however, many opportunities for improvement were identified. Based upon their analysis, the assessors recommend the following:

1. Explore options to institute a mandatory collection operator certification (see further explanation following **Standard 1.1**).
2. Address requirements for transient public water systems and clarify in regulation the certification requirements of their operators (see further explanation following **Standard 1.1**).
3. Discontinue lagoon certification Grades I and II (see further explanation following **Standard 1.3**).
4. Separate water treatment and distribution certifications relative to recertification fee collection (see further explanation following **Standard 1.4**).

5. Restructure the Program's system/facility classification methods to more effectively accommodate evolving technologies and address several risk-based criteria (see further explanation following **Standard 2.1**).
6. Define and codify the terms "on-site" and/or "available" to clarify what constitutes adequate operations coverage (see further explanation following **Standard 2.5**).
7. Develop a code of conduct and require applicants to attest to their adherence at initial application for certification and at recertification (see further explanation following **Standard 3.6** and **Standard 6.10**).
8. Formally codify the Program's practice of requiring examinations to be passed sequentially (see further explanation following **Standard 4.2**).
9. Revise regulations to reflect the requirements for reexamination in accordance with the *Model Standards of Operator Certification* (see further explanation following **Standard 4.2**).
10. Codify a requirement for submission of documentation relative to educational background, training, and experience as part of a complete application. Verify all submitted documentation (see further explanation following **Standard 4.8**).
11. Remove the "restricted certification" and "temporary certification" provisions from Iowa regulation (see further explanation following **Standard 4.9**).
12. Separate water treatment and distribution certifications relative to continuing education requirements and modify the hours of continuing education required for recertification to reflect the minimum continuing education requirements established by the *Model Standards* (see further explanation following **Standard 6.2**).

The report that follows provides each of the Model Standards of Operator Certification accompanied by a discussion of relevant assessment findings that compare the Standard with the Program's practices, a statement of the Program's conformity to the Standard, and the assessors' recommendations for improvement relative to the Standard. Each numbered portion of this report corresponds to the Model Standard of the same number and concept.

'Recertification' is the act of revalidating a certification and is a term used in nearly all industries with certification. 'Certification renewal' is a term that has supplanted 'recertification' among operator certification authorities, having repurposed 'recertification' to mean the act of certifying an individual who has previously held a certification, but no longer does. 'Recertification' will be used to describe the renewal process in this report.

Standard 1 – Institution

1.1 Legal Authority to Implement an Operator Certification Program

Mandatory certification programs shall have the legal authority to implement a program requiring the certification of operators of all public drinking water and wastewater systems/facilities and to mandate that these systems/facilities comply with the appropriate elements of the program. All certification programs, regardless of legal authorization or standing, shall adhere to all applicable best practices of certification.

Assessment Findings: Iowa Code 455B.213 is the formal statute that mandates the certification of operators of treatment plants (water and wastewater) and water distribution systems in the State of Iowa, thereby creating the Iowa Operator Certification Program. The Program within the Iowa Department of Natural Resources is the only governmental operator certification program in the state.

Regulations do not require the Program to mandate collection certification. The Iowa Water Environment Association administers the sole Iowa-based collection system operation certification. As this entity has no legal authority to mandate certification of collection system operators, this certification is voluntary. Though collection system operation is rarely a mandatory certification in any jurisdiction, there is a general trend within the industry to recognize the importance of certification of collection system operators. The Standard requires that certification programs have the authority to mandate certification of water treatment, distribution, collection, and wastewater treatment operators and enforce those requirements within their jurisdictions. As there is no such certification entity with regulatory authority over collection system operators in the State of Iowa, a nonconformity with the Standard is created.

The assessment also revealed that the Program's regulations only require certification for individuals in responsible charge of community and non-transient non-community water or wastewater systems and does not require certification for transient systems. Although transient non-community water systems are public water systems (PWS), operator certification is not a requirement for that type of PWS by EPA or other oversight entities. Program staff indicated that the Field Offices, which are primarily responsible for checking compliance, are typically aware of transient systems and would levy enforcement action if necessary. Though this arrangement may have been sufficient up to this point, the absence of clarity in regulations about operator certification requirements applicable to transient systems weakens confidence in the legal basis for imposing certification as an enforcement action on troublesome transient systems.

Conformity Assessment: Standard not met.

Recommendation: The Program should explore opportunities to mandate collection operator certification. As Iowa DNR is the only regulatory operator certification entity within the State and is not currently mandating the certification of collection system operators, a large section of the operator population is not certified by a regulatory entity. The Program should develop additional language regarding the certification requirements of operators of transient systems.

1.2 Documented Structure

Certification programs shall have a documented structure that ensures impartiality and integrity, defines responsibilities of individuals involved in the certification process, and ensures stakeholder representation.

Assessment Findings: The Program has a simple structure that ensures impartiality and integrity throughout the certification process. The Program relies on five individuals at the Main Office to administer the Program; however, two individuals carry out the majority of program functions with one acting as the Executive Officer and the other providing the primary administrative support. The Program utilizes two Iowa DNR part-time employees at the Main Office to carry out other administrative tasks such as proctoring certification examinations. Finally, the Program employs an individual to handle data entry tasks as they accumulate.

Iowa DNR divides the state into six regions. Each region has a Field Office that is responsible for regulatory compliance in its respective region. Field Office staff assists the Program with the administration and proctoring of certification examinations in addition to enforcing compliance of systems within their jurisdiction. Though all of these individuals interface on a regular basis, they all have their respective tasks and there is little overlap of duties between individuals. This compartmentalization of tasks reduces the risk of individuals injecting bias into processes where it may not be appropriate and encourages tasks to be handled consistently and uniformly. All individuals involved in the certification process undergo regular training to promote a clear, shared interpretation of operator certification program policy and procedure. Each role within the Program structure has specific qualifications that must be met in order to be employed. Lead administrative support and part-time staff must hold the Administrative Assistant 2 (AA2) state government designation. Executive Officers must have a four-year degree and/or substantial experience in an administrative capacity.

To ensure stakeholder representation, the Program solicits the expertise of a formal advisory board of stakeholders, the Iowa Joint Operator Certification Committee (IJOCC). This board, however, no longer has any legal authority or formal connection to the Program; neither the Program nor its staff has any influence over the board and the board cannot impose its will upon the Program. Regardless, the Program depends on IJOCC for input, program review, and strategic planning. The board is composed of representatives from Iowa community colleges, the Iowa Association of Municipal Utilities (IAMU), and Iowa chapters of the Water Environment Federation (WEF), the American Water Works Association (AWWA), and the Rural Water Association (RWA). Recognizing that this board primarily represents only the largest utilities in the state, Program staff conducts public hearings in smaller municipalities as appropriate to ensure all stakeholders have the opportunity to provide input. Again, as the Program has no true influence over IJOCC, there is little it can do to alter the board's composition to represent all stakeholders.

Conformity Assessment: Standard met.

Recommendation: The Program should develop policies and procedures that define stakeholder groups, delineate which types of action require stakeholder involvement, and outline how stakeholder input is collected and utilized.

1.3 Defining Scope of Certification

Certification programs shall define the scope for each certification type and class based on analysis of skills and knowledge required of individuals working in a specific field.

Assessment Findings: The Program, like many operator certification programs, was founded well before contemporary psychometrics was instituted in operator licensure and certification. This means that activities associated with modern standards in psychometrics, such as defining a certification scope via a job task analysis (JTA), were not included in the original development of the Program's certifications. The Program has no recent record of conducting anything like a modern JTA, though it conducts regular reviews of its regulations that define the scope of its certifications with stakeholders. As regulatory programs are subject to bureaucratic and political processes, there is often little they can do to safeguard the psychometric validity of certification scopes completely.

The Program also relies on ABC who does conduct a new JTA every five years for water treatment, distribution, and wastewater treatment certification resources to ensure they adequately reflect the industry. This process provides the foundation for a scope and need-to-know criteria (NTK) for each certification type and eventually translates to new examination forms that are implemented by the Program. The Program holds that its regulatory definitions, which serve as the Program's scopes, closely align with the current ABC NTK, but should routinely review these definitions to ensure they are reflective of the most current JTA and NTK.

Apart from utilizing ABC NTK for water treatment, distribution, and wastewater treatment operations, the Program created a special certification scope (wastewater lagoon, Grade I and II) to allow individuals to meet state certification requirements of wastewater lagoon operation without having to meet the more stringent requirements of wastewater operator certification. Lagoon systems are included within ABC's scope of wastewater treatment operations, so this separate certification type subverts the certification requirements. Program staff indicated that removing this certification would be a challenge.

Conformity Assessment: Standard met.

Recommendation: The Program should remove its alternative "lagoon" certifications and pursue regular analysis of all certification scopes against ABC's NTK.

1.4 Financial Sustainability

Certification programs shall have the financial resources required for sustained operation as well as associated liabilities.

Assessment Findings: The Program is able to estimate its cost per certification activity and has solicited assistance from financial advisors within Iowa DNR to generate a report that considers all internal and external costs to approximate the real cost per function to administer the Program. The Program estimates that collected certification fees cover 55 percent of its operating cost and Safe Drinking Water State Revolving Fund covers 25 percent of costs. Fees from other “periphery certifications,” such as Pump Installer and Well Driller, and funds transferred by other State agencies or divisions within Iowa DNR for use of the Program’s certification database cover the remaining 20 percent. The assessors found no reason to believe the Program is not financially stable and sustainable.

It was noted during the on-site assessment that during the institution of distribution operator certification several years ago, Program administrators granted distribution certification to all existing certified water treatment operators in an effort to accommodate the then-current certification environment and to meet EPA requirements. During recertification, individuals holding both certifications are only required to pay a fee equivalent to one recertification, effectively reducing potential fee revenues.

Conformity Assessment: Standard met.

Recommendation: The Program should explore separating its water treatment and distribution operator certifications in order to increase fee revenues and better understand true program function costs.

1.5 Compliance with Applicable Law and Regulation

Certification programs shall comply with all applicable laws and regulations.

Assessment Findings: The Program benefits from Iowa DNR’s legal staff, who reviews all proposed changes to the Program’s rules in addition to crosschecking program rules with newly passed laws for compliance. Program rules and regulations are continuously reviewed, and the Program also conducts a comprehensive internal review for reporting annually.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

Standard 2 – Classification of Systems, Facilities, and Operators

2.1 System Classifications

Certification programs shall classify water and wastewater facilities and distribution and collection systems based on indicators of potential risk to public health and/or environment, which should include

- A. water treatment facility complexity, capacity, population served, and source water characteristics;*
- B. water distribution system operational requirements and population served;*
- C. wastewater treatment facility complexity, capacity, population served, and wastewater characteristics; and*
- D. wastewater collection system operational requirements and population served.*

The classification levels for these systems/facilities shall be aligned with the job task analysis, which is used to develop validated certification examinations (see Standard 1.3 and Standard 4).

Assessment Findings: The Program’s system classification method is at least 20 years old and was reviewed by a stakeholder group approximately 10 years ago. This group consisted of operations SMEs along with engineers, permit-writers, and other governmental stakeholders. The existing classification method is based primarily on flow for both water treatment and distribution and includes a distinction applied to rural water districts where classification is based solely on miles of pipe. Wastewater treatment is based primarily on design five-day biological oxygen demand loading. Both water treatment and wastewater treatment classifications also include treatment complexity in the classification method.

Program staff noted that they experience difficulty with the current method (especially when classifying new facilities). Though program rules, specifically Iowa Administrative Code (IAC) 81.2(2), allow for the Program to increase the classification of treatment plants or water distribution systems with “unusually complex treatment processes, complex distribution systems, or which present unusual operation or maintenance conditions,” this presents an opportunity for inconsistent classification.

During the assessment, it was also noted that the existing classification method has the potential to cause issues as the full complexity of a system is not taken into account. For example, an advanced water treatment facility with technology requiring substantial knowledge to operate properly does not necessarily have to have high flows. This hypothetical plant would receive a low classification even though it would require very skilled individuals to operate it. Another example of potentially misplaced classification might be a rural water district with a low number of pipeline miles but serving a large population. The classification assigned in that scenario may not fully address the potential risk to human health. **Standard 2.1** calls for a multi-variable approach in order to fully account for these complexities and other risk-based parameters.

Program staff indicated they were waiting to update the classification method as they intend to utilize ABC’s revised *Plant Point Rating System* as a foundation, once it is released.

Conformity Assessment: Standard not met.

Recommendation: The Program should develop or seek out an updated classification method to better account for developments in technology and system requirements. With many barriers to quickly implementing change and the latitude afforded to the Program by its rules, the Program’s plan to adapt the next *ABC Plant Point Rating System* is a sufficient strategy for the time being. Regardless of its strategy, the Program should ensure their revised classification method takes into account public health and environmental risks.

2.2 Operators in Charge

Certification programs shall require owners of water and wastewater systems/facilities to place the direct supervision of each facility and/or system or major segment of the facility and/or system under the responsible charge of an operator(s) holding a valid certification equal to or greater than the classification of the facility or system.

Assessment Findings: IAC 81.2(3) is nearly identical to **Standard 2.2**: “The operator-in-charge shall hold a certificate of the same classification of the plant or water distribution system and of equal or higher grade than the grade designated for that plant or distribution system.”

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

2.3 Direct Responsible Charge (DRC)

Certification programs shall require all operating personnel who make process control and system integrity decisions about water quality or water quantity that affect public health or the environment to hold the appropriate class and type of certification.

Assessment Findings: Program rule IAC 81.2(4) (“Any person who is responsible for the operation of an operating shift of a plant or distribution system or major segment of the plant or distribution system and is under the supervision of the operator-in-charge identified in IAC 81.2(3) shall be certified in a grade no less than a Grade II level for Grade III and IV plants and distribution systems and Grade I for Grade I and II plants and distribution systems”) establishes language similar to **Standard 2.3** for the Program. Field Offices routinely check for compliance to ensure all operators in responsible charge have attained and hold the appropriate certification.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

2.4 Proliferation of Certification

Certification programs shall require all operating personnel working at a Class I or higher system or facility to become certified at Class I or higher in the appropriate type within two years of employment.

Assessment Findings: The Program does not require certification for non-DRC operators. The current regulations ensure that all systems have at least one certified operator and that has been sufficient thus far. Market forces encourage uncertified operators to pursue certification as it typically correlates to greater earning power. With the amount of systems in noncompliance at less than three percent, program administrators do not observe a current need to institute language like that found in **Standard 2.4** into program rules.

Conformity Assessment: Standard not met.

Recommendation: The Program should implement a mechanism to ensure certification of all operators within two years of employment.

2.5 On-site and Availability

Certification programs shall require a designated certified operator of the appropriate type and class be on-site or available for each operating shift or system project.

Assessment Findings: The Program does not have any regulatory language that defines “on-site” or “available.” The Field Offices determine whether a system has designated an operator to be in responsible charge that can access and initiate system changes in a reasonable amount of time. The Program is developing a Policy Implementation Guideline (PIG) that will provide the Field Offices with specific evaluation criteria so that all six offices will uniformly evaluate systems for compliance.

Conformity Assessment: Standard not met.

Recommendation: Finish the aforementioned PIG to clarify on-site and availability concerns.

2.6 Levels of Classification

Certification programs shall require that all operators, systems, and facilities be classified into one of five levels based on classifications defined by Standards 2.1 and 1.3. The levels of certification start at Class I and continue on to II, III, and IV (IV being the highest, most complex level). A Very Small Water System (VSWS) or Small Wastewater System (SWWS) classification shall be reserved for systems less complex than Class I.

Assessment Findings: The Program’s mandatory status was codified by regulation in 1965 and its five level classification scheme is common. The Program uses the word “Grade” in the same way the Standards use the word “Class.” The Program designates all systems and the certified individuals who

operate them Grade I, II, III, or IV with Grade IV being the highest. Grade A was developed for the smallest non-transient, non-community systems, or community systems.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

Standard 3 – Certification Eligibility

3.1 Basic Education

Certification programs shall require that candidates have one of these qualifications: a high school diploma, a general equivalency diploma (GED), documentation of post-secondary education from an accredited institution, or foreign academic credentials evaluated to be equivalent to or higher than a high school diploma.

Assessment Findings: Requiring completion of high school or a general equivalency diploma program for certification at all Grades, the Program meets **Standard 3.1** and allows no substitutions for a basic education.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

3.2 Post-secondary Education

Certification programs shall require that candidates have the amount of post-secondary education or allowable substitution of experience prescribed in Table 3A. Education used to meet the education requirement shall be in a field directly related to the type of certification being sought and shall not be reused as a substitute for the experience requirement. Calculation of hours of post-secondary education shall adhere to the conversion factors prescribed in Table 3B.

TABLE 3A: Required Post-secondary Education and Substitutions

Class	Required Post-secondary Education	Allowed Substitution: Experience for Post-secondary Education (Maximum substitution allowed)
VSWS/SWWS	12 contact hours of VSWS/SWWS operation education	None
Class I	90 contact hours of post-secondary education in a field directly related to the type of certification being sought	None
Class II	180 contact hours of post-secondary education in a field directly related to the type of certification being sought	None
Class III	2-year degree (physical or natural science; civil, chemical, or environmental engineering) <i>or</i> 900 contact hours of post-secondary education in a field directly related to the type of certification being sought	1 year of DRC* experience in a Class II or higher position for 450 contact hours of post-secondary education
Class IV	4-year degree (physical or natural science; civil, chemical or environmental engineering) <i>or</i> 1800 contact hours of post-secondary education in a field directly related to the type of certification being sought	2 years of DRC* experience in a Class III or higher position for 900 contact hours of post-secondary education

*"DRC" denotes Direct Responsible Charge

TABLE 3B: Post-secondary Education Conversion Factors

Post-secondary Education Type	Equivalent Amount of Contact Hours
1 Continuing Education Unit (CEU)	10 contact hours
1 semester course credit from an accredited college or university in a subject directly related to the type of certification being sought	15 contact hours
1 quarter course credit from an accredited college or university in a subject directly related to the type of certification being sought	10 contact hours

Assessment Findings: The post-secondary education requirements for Grade III and IV echo **Standard 3.2**, however, the Program does not require post-secondary education for Grade A, I, or II. The Program utilizes regulatory language to create precedents for the approval of post-secondary education and, in practice, the Program will typically recognize a two-year degree as equivalent to 900 contact hours and a four-year degree as equivalent to 1,800 contact hours so long as the degree is in a relevant field and from a recognized institution. With differing post-secondary education requirements, the substitutions available to operators are not identical to those listed in **Standard 3.2**; however, the Program provides numerous pathways to meeting the education requirements.

Conformity Assessment: Standard not met.

Recommendation: The Program should pursue the inclusion of post-secondary education requirements and allowable substitutions for Grades A, I, and II in accordance with Table 3A.

3.3 Operating Experience

Certification programs shall require that candidates have the amount of operating experience or allowable substitutions of education or related experience prescribed in Table 3C. Experience used to meet the experience requirement shall be directly related to the type of certification being sought and shall not be reused as a substitute for the education requirement.

TABLE 3C: Required Experience and Substitutions			
Class	Required Operating Experience	Allowed Substitutions: Education for Operating Experience (Maximum substitution allowed)	Allowed Substitutions: Related Experience for Operating Experience (Maximum substitution allowed)
VSWS/SWWS	Six months of operating experience in a VSWS/SWWS or higher class utility	None	None
Class I	1 year of operating experience directly related to the type of certification being sought	None	12 months of related experience for 6 months of operating experience (still must have 6 months of operating experience)
Class II	3 years of operating experience directly related to the type of certification being sought in a class I or higher utility	675 contact hours of post-secondary education in a field directly related to the type of certification being sought for 18 months of operating experience (still must have 18 months of operating experience)	36 months of related experience for 18 months of operating experience (still must have 18 months of operating experience)
Class III	4 years of operating experience directly related to the type of certification being sought in a class II or higher utility, including 2 years of DRC*	900 contact hours of post-secondary education in a field directly related to the type of certification being sought for 24 months of operating experience (still must have 24 months of operating experience including 12 months of DRC*)	None
Class IV	4 years of operating experience directly related to the type of certification being sought in a class III or higher utility, including 2 years of DRC*	900 contact hours of post-secondary education in a field directly related to the type of certification being sought for 24 months of operating experience (still must have 24 months of DRC*)	None

*"DRC" denotes Direct Responsible Charge

Assessment Findings: The Program's operating experience requirements nearly echo those found in **Standard 3.3** except that there is no DRC requirement for Grade III. The Program's requirements also do not require experience to have been earned in a Grade II or higher system in order to be eligible for Grade III certification as specified in the Standard (the Program requires experience to have been in a

Grade I or higher system). With differing operating experience requirements, the substitutions available to operators are not identical to those listed in **Standard 3.3**; however, the Program provides numerous pathways to meeting the experience requirements.

Conformity Assessment: Standard not met.

Recommendation: The Program should include a DRC requirement for Grade III, qualify its Grade II requirements to ensure only experience earned in a Grade II system or higher will be credited towards the eligibility requirements, and align its allowable substitutions with those listed in **Standard 3.3**.

3.4 Related Experience

Certification programs shall define acceptable forms of related experience for each certification type as prescribed in Table 3D. Related experience shall be credited at a rate of 50 percent toward meeting the operating experience requirements for Classes I and II prescribed in Table 3C.

TABLE 3D: Acceptable Related Experience			
Water Treatment	Water Distribution	Wastewater Treatment	Wastewater Collection
<ul style="list-style-type: none"> Water distribution operator Wastewater treatment operator Wastewater collection operator Water/wastewater lab technician* Engineer* Plant maintenance technologist** 	<ul style="list-style-type: none"> Water treatment operator Wastewater collection operator Wastewater treatment operator Pipe layer Engineer* Plant maintenance technologist** 	<ul style="list-style-type: none"> Water treatment operator Wastewater collection operator Water distribution operator Water/wastewater lab technician* Engineer* Plant maintenance technologist** 	<ul style="list-style-type: none"> Wastewater treatment operator Water distribution operator Water treatment operator Pipe layer Engineer* Plant maintenance technologist***
<p>* Must be experience obtained in a water/wastewater facility or in a facility similar to a water/wastewater facility.</p> <p>**Duties of plant maintenance technologists accepted as “related” Include: pipe fitting; plumbing; or maintenance of instrumentation, machines, mechanical systems, or electrical systems.</p> <p>*** Duties of plant maintenance technologists accepted as “related” include: pipe fitting, plumbing, power and stationary engineering; or maintenance of instrumentation, machines, mechanical systems, or electrical systems.</p>			

Assessment Findings: The Program provides individuals with experience in system maintenance, on-site operation supervision of systems, or water or wastewater laboratories the ability to use that experience to meet up to half of the operating experience requirement for Grade I and II only. This related experience is credited at half of the rate at which operating experience is, making the substitution cap for Grade I one year of related experience and six months of operating experience and the cap for Grade II 36 months of related experience and 18 months of operating experience. The same rules are extended to operators looking to transfer from one certification type to another.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

3.5 Disclosure of Disciplinary Action

Certification programs shall require every applicant, candidate, and/or certificant to disclose any past and/or pending disciplinary action imposed upon him or her, regardless of jurisdiction.

Assessment Findings: The Program intends to begin incorporating inquiries regarding past/pending disciplinary action into its applications to become more aware of its certificants' histories. The Program takes an active approach to learn of any compliance issues or misconduct that may necessitate disciplinary action.

Conformity Assessment: Standard not met.

Recommendation: The Program should follow through with its intentions to require information regarding past or pending disciplinary action of applicants.

3.6 Code of Conduct for Eligibility

Certification programs shall develop a code of conduct and require agreement to adhere to that code of conduct as a condition for issuance of a certification.

Assessment Findings: The Program does not have a code of conduct or similar document, but intends to develop one in the future. The Program currently has rules that define misconduct as noted in IAC 81.17(1).

Conformity Assessment: Standard not met.

Recommendation: The Program should follow through with its intentions to develop a code of conduct and require agreement to adherence to the code for initial certification eligibility.

3.7 Recognition of Certification Issued by Other Authorities

Certification programs shall develop policies regarding the issuance of certifications to operators who hold certifications from other jurisdictions with the goal of facilitating the mobility of operators between jurisdictions to the extent practicable.

Assessment Findings: The Program has comprehensive rules, listed in IAC 81.11, on recognizing certification issued by other authorities, whether mandatory or voluntary. Upon receipt of an application for reciprocity, the Program evaluates or refers to previous evaluations of the program that issued the certification being considered for reciprocity. This evaluation determines what will be required of the applicant to earn reciprocal certification.

Conformity Assessment: Standard met.

Recommendation: The Program should explore opportunities to make the reciprocity evaluation process as objective and uniform as possible.

Standard 4 – Certification Procedures

4.1 Examination Development

Certification programs shall use legally defensible exams that are developed and validated using industry-prevailing, psychometrically sound development processes under the supervision of a qualified psychometrician. National standardized exams shall be used to maintain uniformity in evaluating core processes and to facilitate the mobility of operators between jurisdictions. Exams shall be revalidated on an ongoing basis to ensure evaluation of operator competence is based on current technology and regulations. Any revision to an exam form requires a revalidation of the exam form as a whole. Critical components of a psychometrically sound exam development process include

- A.** Job Task Analysis (JTA)
- B.** Test Specifications (Need-to-Know Criteria)
- C.** Item Writing
- D.** Item Review
- E.** Field Testing (Beta Testing)
- F.** Item Analysis
- G.** Test Form Assembly
- H.** Standard Setting (Cut Score or Passing Score Setting)

Assessment Findings: The Program utilizes the most recent standardized examinations released by ABC for water treatment operation, distribution operation, and wastewater treatment operation. ABC develops its standardized examinations in accordance with psychometric best practices. By using ABC's Testing Service instead of developing its own examinations, the Program reduces substantial liability, financial burden, and resource use. Prior to utilization of the ABC service, the Program conducted cursory analyses to determine the alignment between the ABC examinations and program scopes.

ABC does not develop or maintain the Program's lagoon certification examinations nor were these examinations demonstrated to have been created in accordance with **Standard 4.1**.

Conformity Assessment: Standard not met.

Recommendation: The Program should eliminate its lagoon examination and certification, as previously recommended.

4.2 Examination Administration

Certification programs shall maintain strict exam administration processes, which shall require

- A. candidates to pass examinations sequentially in order from the lowest class to highest class;*
- B. examinations to be proctored using standards that accord with Instructions for Administering ABC Exams (see Referenced Documents);*
- C. documentable separation between training and exam administration to ensure exam integrity;*
- D. candidates who fail an exam to wait 30 days from the previous exam date before retaking the exam;*
- E. candidates who fail an exam three or more times to complete additional specified training before being allowed to retake the exam;*
- F. prohibition of exam question review by parties other than the certification program or approved contractors in order to preserve the security and integrity of the exam process; and*
- G. submitted comments or queries to have no effect on candidates' exam scores.*

Assessment Findings: Though the Program does not have any regulatory or policy language requiring examinations to be administered in sequence, it is a standing practice. A contributing factor to this practice is the Program's use of ABC standardized examinations. These exams are designed to progressively increase in the amount and degree of knowledge required to demonstrate minimum competency for certification. The Program uses this principle as part of its basis for requiring individuals to advance through certification grades sequentially, though the Program's requirement of sequential advancement was in place prior to the utilization of ABC standardized exams. Similar to previous recommendations in other sections of this report, this practice should be codified.

A condition of using ABC's Testing Service is to administer examinations in accordance with ABC policy. The Program regularly trains and familiarizes proctors (Main Office or Field Office staff) with this policy. The Program neither conducts training nor does it allow trainers to administer the examinations. As previously mentioned, all proctors are either Main Office or Field Office staff and must be designated as an AA2 by the State government.

Lagoon operator examinations are conducted solely at the Main Office as paper and pencil examinations and are proctored by trained administrative support staff. All other operator certification examinations are provided by ABC's web-based Testing Service that allows the examinations to be administered at one of the six Field Offices or at the Main Office. Examinations are offered as requested, Monday through Friday, 8 a.m. to 4:30 p.m. local time. In order to access the examination, a candidate must check in with a proctor and enter his or her unique password. The proctor will then enter his or her password and the candidate may begin the examination. Computers used for examination administration are dedicated solely for that purpose and are unable to be used in any other way. Only the Executive Officer and lead administrative support have full access to the examination distribution system. Basic safeguards such as electronic firewalls, sign-in sheets, and physical locks on offices are also in place.

Candidates have one year from the date of application to pass the examination, after which they are barred from further examination attempts until a new application is submitted. The Program's retake policy, IAC 81.9(5), currently reads, "Upon failure of the first examination, the applicant may be reexamined at the next scheduled examination." This policy would likely have conformed to **Standard 4.2.D** under past models in which examinations were administered only a few times a year. However, with retake and application-processing times typically requiring less than two weeks for the Program and examinations now being administered electronically and on-demand, the time between "scheduled examinations" may be as short as the amount of time it takes to process the retake application. Therefore, the Program does not meet the 30-day requirement of **Standard 4.2.D**.

After a candidate's second failure of a single examination, the candidate is required to wait 180 days before taking the exam a third time, though Program staff may shorten this waiting period if the candidate submits a study plan. Program staff reviews these plans and determine what reductions to the 180-day waiting period can be made.

The Program does not allow candidates to review examinations nor does it compile candidate feedback on an examination. The examination is uncontestable.

Conformity Assessment: Standard not met.

Recommendation: The Program should formally codify or develop a PIG that requires candidates to earn higher Grade certifications by first passing the exams of lesser Grades, sequentially. The Program should also standardize its retake policies by requiring at least 30 days between examination attempts and eliminate subjective reductions to the waiting period. The Program should consider distributing some sort of formal documentation to staff that complete proctor training.

4.3 Examination Confirmation

Certification programs shall require all eligibility criteria to be met (including passing the exam) before granting certification. Certification programs shall provide documentation of certification to each certified individual.

Assessment Findings: IAC 81.7(1) echoes **Standard 4.3** by requiring confirmation of eligibility prior to allowing an applicant or candidate to be administered an examination. The Program relies primarily on an attestation statement at the end of the application to enforce certification eligibility in that if the Program discovers an applicant has made fraudulent claims about his or her eligibility, the Program will have legal recourse to apply disciplinary action. The Program utilizes the expertise of its Field Offices to confirm experience for suspicious applications. Certification is awarded only if a candidate has successfully passed examination and has paid the certification fee. Upon completion of these two tasks, the Program issues both a certificate and a wallet card that provide full details of the issued certification. These details include the certified individual's name, the type and grade of the certification, the unique certification number, expiration date of the certification, and a statement affirming the statute that Iowa DNR owns the certification.

Conformity Assessment: Standard met.

Recommendation: The Program should pursue assurances beyond applicant attestation of eligibility to prevent the award of certification to ineligible individuals.

4.4 Contractors

Certification programs shall require any and all work performed by program contractors and/or subcontractors to adhere to all pertinent certification standards.

Assessment Findings: As mentioned, the Program contracts with ABC for examination development and delivery services. The Program continually monitors the delivery of ABC's services and products to ensure standards are met. The Program will also, on occasion, work with trainers to develop specific training opportunities for Iowa operators, though this is not a function the Program is required to conduct. The Program also contracts with different State contractors and other Departments or Divisions within Iowa DNR to carry out certain program functions or develop new resources. No evidence was found suggesting that the work performed by contractors and/or subcontractors was below the standards set by the Program.

Conformity Assessment: Standard met.

Recommendation: The Program should regularly audit all contractors or subcontractors providing services.

4.5 Security

Certification programs shall ensure the security of all certification-related information: physical and electronic.

Assessment Findings: The Program has a battery of security measures in place to safeguard certification information. The Main Office serves as the central repository of information and visitor access is prohibited during closed hours and requires sign-in during open hours. All physical certification files are monitored by administrative support staff and are locked when staff is out of the file area. Only the Executive Officer and the lead administrative support have full access to the examination distribution system. Electronic certification information is digitally secured by network user permissions that limit who can access the information and respective databases, firewalls and a wired network (no wireless access) that prevent network intrusion. All security protocols are governed by internal standard operating procedures established by the State of Iowa. See previous comments regarding secure examination administration in **Standard 4.2** of this report.

Program staff relies on the Department or State's information technology (IT) workers to manage the information management systems and develop security protocols. This reliance generates a degree of unfamiliarity with the exact procedures or policies in place that govern network security.

Conformity Assessment: Standard met.

Recommendation: The Program should ensure the existing statewide security policies and procedures are readily available and understood so that responsive action can be initiated quickly in the event of a security breach. The Program should develop internal policies and procedures for security concerns not explicitly identified by existing State policy.

4.6 Confidentiality

Certification programs shall develop criteria to identify and protect certification-related information that must be kept confidential.

Assessment Findings: The Program makes the majority of its certification information readily available to the public via the web and, due to the Iowa Public Information Act, must make documents available upon request. The Program does keep applicants' Social Security numbers confidential and only collects them to create unique applicant identification numbers. The Program encrypts and masks Social Security numbers after they have been entered. Candidates' exam scores are also kept confidential; only "pass" or "fail" is noted on the Program's website.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

4.7 Competency and Ethics Requirements

Certification programs shall define and uphold competency and ethics requirements for all individuals associated with the certification process.

Assessment Findings: Competencies of Iowa DNR personnel associated with the certification process are documented by the respective position description and evaluated periodically by the performance evaluation process. Each Program staff member must satisfy certain position-specific competency and eligibility requirements in order to hold his or her position (see **Standard 1.2**). Job descriptions along with activity guidelines help to govern staff workflow. Application processing, distribution of examination results, issuance of certification documentation, and other such tasks have specific timeframes by which the task must be complete. These task deadlines are used to continuously gauge staff competency. Standard clauses in staff member performance plans require each individual to uphold certain ethical requirements as defined by Iowa DNR.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

4.8 Submission of Verifiable Documentation

Certification programs shall require all applicants to submit verifiable documentation of certification eligibility.

Assessment Findings: IAC 81.9(1) states that the exam application form requires the applicant to indicate his or her educational background, training, and experience in water or wastewater operation. IAC 81.9(2) states that all applications for examination, certification, recertification, and upgrading of certification will be evaluated. With detailed files for each operator and six Field Offices that regularly interact with the certified individuals, the Program is in a position to easily verify job duties and experience histories of those applying for or holding certification. The Program does not require individuals to submit documentation of eligibility at the time of application. Instead, the Program relies on an attestation statement, by which, if signed, an applicant attests to the veracity of the qualifications he or she has claimed. This attestation statement gives the Program legal recourse to administer disciplinary action if the Program learns that an applicant has made false statements, however, attestation is solely a reactive means to substantiate claims of eligibility. An uncertain amount of time may pass prior to discovery of falsified information.

Conformity Assessment: Standard not met.

Recommendation: The Program should verify and compile documentation of the educational background, training, and experience of each applicant seeking examination. In addition, the Program should codify a requirement for submitted documentation.

4.9 Definition of Standards, Policies, and Procedures

Certification programs shall define and uphold standards, policies, and procedures for all certification processes.

Assessment Findings: The Program sets policy by two primary means, the first being the development of PIGs, which interpret current regulations or define an internal policy. The Program has much more discretionary power in developing PIGs as they are internal program policies and do not have to go through the entire political process. The second policy creation method is formal rule change that requires substantially more effort. Passing a rule change requires staff to develop a new rule, gain Division and Department backing, solicit public and stakeholder opinion, make any necessary revisions, and finally submit the rule to Iowa's legislative body for discussion and vote. This entire process typically takes a year or two.

The Program reviews policies and rules on a regular basis as staff publishes an annual report every year and conduct strategic planning every five years. The Program conducts Department performance reviews, State financial audits, and EPA audits periodically. Staff meets periodically to discuss uniformity of program practices and to develop standard operating procedures for quality assurance.

The Program does not practice a few regulations for various reasons. IAC 81.12 allows for the issuance of temporary or restricted certification, which has to do with new water or wastewater systems being

brought online or existing systems being reclassified to a different grade. Though these are options granted by regulation, in the Program does not practice them. IAC 81.17(4) calls for the Department (the Program on behalf of the Department) to deny applications for certification or recertification or to suspend existing certifications of an individual with outstanding child support payments. Though this is formally codified in regulation, the State has not provided the Program any information system with which to track these individuals, thus there is no way to implement the regulation. See comments in **Standard 4.2** of this report on IAC 81.9(5), which defines the 180-day waiting period that is imposed after failing an exam for the second time. Essentially, 180 days is defined by regulation, but staff reduces this period, as they deem appropriate.

Conformity Assessment: Standard not met.

Recommendation: The Program should rectify all identifiable discrepancies between regulation and practice. The Program should document any major practices not formally codified in regulations or internal policy. The Program should continue to pursue PIG development as it is a practice that will greatly improve program uniformity and consistency of practices not governed by program regulations.

Standard 5 – Enforcement

5.1 Enforcement Authority

Certification programs shall have the authority to enforce compliance with certification requirements.

Assessment Findings: The Program has the authority to enforce certification compliance by IAC 81.17. The Program may only enact enforcement against individual operators for certification-related noncompliance; all other issues are outside the scope of the Program and are handled by other entities within the Department’s Water Supply Division. Certificants’ attestation to qualifications stated on their applications gives the Program legal recourse to administer disciplinary action if the Program learns that an applicant has made false statements. Iowa DNR Field Office staff investigates and forwards all cases of noncompliance with certification requirements to the Main Office and Iowa DNR’s legal staff. The Program then works with the operator through a compliance tool called a “consent order” that describes the requirement that is not being met along with how an individual can address the issue or, if a final notice, what disciplinary action is being taken.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

5.2 Defining Misconduct

Certification programs shall define certificant misconduct and procedures for investigating reported misconduct. Common examples of misconduct requiring disciplinary action are

- A. conduct that subverts or attempts to subvert the minimum certification requirements, application processes, or examination processes;*
- B. failure to disclose convictions and pending felony charges within the scope of the operator's certification;*
- C. violation of a code of conduct;*
- D. falsification of records or reports;*
- E. negligence in operation;*
- F. incompetence in the performance of duties of a certified operator; and*
- G. misrepresenting a certification.*

Assessment Findings: The Program may take disciplinary or enforcement action on any grounds defined by Iowa Code section 455B.219, chapter 272C, or IAC 81.17(1). Between these three lists, Program staff has broad discretionary power to address a range of potential issues. The most common issues the Program faces are the falsification of records, negligence, and systems being out of compliance with certification requirements. With six Field Offices, key Program staff members have noted the great opportunity for variability of enforcement and investigation practices between each Field Office. The Program conducts periodic meetings and training to promote uniform and consistent investigations and enforcement of requirements.

Conformity Assessment: Standard met.

Recommendation: The Program should continue to standardize investigatory practices between Field Offices.

5.3 Ability to Enforce

Certification programs shall have the procedures and resources to fully and consistently implement enforcement processes/disciplinary actions relative to the level of operator misconduct. Examples of disciplinary actions include

- A. reprimand;*
- B. censure;*
- C. probation;*
- D. suspension;*
- E. revocation;*
- F. fines and other administrative penalties; and*
- G. civil and/or criminal action.*

Assessment Findings: IAC 81.17(2) and Iowa Code section 272.3(2) define all of the sanctions available to the Program. These include revocation, suspension, probation, civil penalties, and the prescription of additional education, training, or examination requirements. The Program introduces sanctions as the

situation calls for, which can create some opportunities for inconsistency, but a bank of enforcement standard operating procedures (SOPs) are used to standardize the process. When revocation is called for, the Program issues a consent order that requests the offender willingly give up his or her certification. If the offender signs, there is little he or she can do to regain certification from a legal standpoint because it was willingly relinquished. This gives the Program substantial protection.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

5.4 Appeals

Certification programs shall have a documented appeal process for any enforcement or disciplinary action.

Assessment Findings: IAC 81.17(3)c grants certified individuals the right to appeal certification decisions if the certificant files an appeal is filed within 30 days of the contested action. Neither applicants nor candidates for examination may appeal certification decisions. In the event of a filed appeal, Iowa DNR Water Supply Division's legal staff arbitrate the appeal which constitutes the "final decision of the director and the department unless the licensee or the director and department appeal the proposed decision."

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

5.5 Enforcement of Individuals Holding Certification Issued by Another Authority

Certification programs shall have the authority to discipline certificants regardless of the location in which misconduct was committed or of disciplinary action taken by other entities.

Assessment Findings: The Program does not have any regulation similar to **Standard 5.4**, though it has considered the concept. Program staff cited political and legal complications as the primary hurdle to instituting such a policy.

Conformity Assessment: Standard not met.

Recommendation: The Program should explore options including but not limited to adjusting the application attestation statement as described above or including similar language in a code of conduct.

Standard 6 – Recertification

6.1 Recertification Cycle

Certification programs shall have a fixed recertification cycle for each certification that includes

- A.** *an expiration date not to exceed three years from the date certification was awarded; and*
- B.** *a date by which recertification requirements must be met.*

Assessment Findings: Certifications issued by the Program remain active for two years. The Program uses a fixed recertification cycle with all operator certifications expiring June 30 of odd-numbered years, however, continuing education must be earned during two-year periods ending March 31 of odd-numbered years. This creates an artificial due date for the submission of continuing education that differs from the date of actual expiration, giving both certificants and the Program a two-month buffer period prior to the expiration date that can be used to process recertification applications and address any issues an applicant may have with recertifying.

Conformity Assessment: Standard met.

Recommendation: The Program should attempt to address the shortcuts identified in comments relevant to **Standard 6.6**.

6.2 Continuing Education Hours

Certification programs shall establish and require continuing education hours for recertification as prescribed in Table 6A.

TABLE 6A: Hours of Continuing Education Required Per Certification			
Class	Per 1-year Recertification Cycle	Per 2-year Recertification Cycle	Per 3-year Recertification Cycle
VSWS/SWWS	5	10	15
Class I	8	16	24
Class II	8	16	24
Class III	10	20	30
Class IV	12	24	36

Assessment Findings: The Program requires the applicant to submit a recertification application, pay the applicable fee, and document and submit 10 contact hours to recertify Grade I and II certifications or 20 contact hours to recertify Grade III and IV certifications. Based on a two-year certification cycle and with respect to the *Model Standards*, Iowa’s Grade I and II recertification requirements are deficient six hours and Grade IV recertification is deficient by four hours.

As described in **Standard 1.4**, the merging of distribution and water treatment certifications relative to fees and continuing education occurred in the past to accommodate needs at that time. The granting of

certification without any sort of verification of eligibility or examination of knowledge is not a recommended practice. The Program administratively linked distribution certification to water treatment certification for those holding both in an effort to encourage those whom the Program gave distribution certification to maintain it. During recertification, individuals holding both certifications were, and still are, only required to obtain enough continuing education hours to meet the recertification requirements for one certification. That program change reduced certificant professional development.

Essentially, the Program allows the subversion of continuing education required per certification by only requiring that individuals holding both water treatment and distribution operator certifications document and submit enough hours to recertify a single certification.

Conformity Assessment: Standard not met.

Recommendation: The Program should adjust its required continuing education hours for Grade I, II, and IV to conform to Table 6A. The Program should separate water treatment and distribution certifications and require individuals holding both certifications to submit sufficient documentation of continuing education to meet the recertification requirements of both certifications.

6.3 Relevancy Criteria

Certification programs shall establish criteria for the approval of operator continuing education courses for recertification, including

- A. course administration;*
- B. course content; and*
- C. relevancy criteria.*

At least 75 percent of the continuing education hours required for recertification must be on topics directly related to the certification held. These hours may not be used for any other recertification.

Assessment Findings: The Program utilizes a comprehensive set of continuing education relevancy criteria that define what continuing education subjects are acceptable for each certification type. Program staff, in cooperation with the IJOCC stakeholder group, developed, review, and regularly update these criteria, are. The relevancy criteria prohibit more than 20 percent of the continuing education requirement to be from safety training.

Program staff simplifies continuing education review by requiring courses to be pre-approved for relevancy and credit against recertification requirements. Once a training provider has received course approval from Program staff, the provider is given several copies of the Program's recertification hour documentation form to distribute to course attendees. Program staff collects these forms after each course or at recertification time. Program staff reviews the forms to ensure each individual accumulated

a sufficient amount of hours. Enforcing the relevancy criteria in this way ensures only certification-relevant coursework is attended by certificants.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

6.4 Prohibition of Repeat Courses

Certification programs shall grant recertification credit only once for continuing education subject matter that is repeated within a single recertification cycle.

Assessment Findings: The Program's relevancy criteria prohibit credit from being given to multiple instances of a single course attended within a single certification cycle though this policy is not formally codified in regulation. The generality of the current regulations in IAC 81.14 allows for greater discretion of course approval, which includes denying credit for repeat courses, so staff does not see any need to explicitly codify this policy.

Conformity Assessment: Standard met.

Recommendation: The Program should ensure its practice of the denial of identical continuing education within a single certification cycle by developing a policy to back this practice.

6.5 Prohibition of Carryover

If continuing education hours earned during a single recertification cycle exceed the requirements, excess hours cannot be carried over to subsequent recertification cycles.

Assessment Findings: The Program does not allow hours applied to one recertification to be used in subsequent recertification applications. Again, this is not formally bound to regulation and is instead part of the broad powers afforded by IAC 81.14.

Conformity Assessment: Standard met.

Recommendation: The Program should ensure its practice of prohibiting continuing education carryover consistently applied by developing a policy to back this practice.

6.6 Invalidation

Certifications with recertification requirements unfulfilled by the expiration date or due date, whichever is specified by the program, shall be considered invalid and shall not be renewed.

Assessment Findings: The Program does have a set expiration date along with a due date for recertification applications as commented on in **Standard 6.1** above; however, there are a few ways

around these deadlines. First, the Program has discretion to allow individuals facing hardships or certain extenuating circumstances, as defined by 81.14(4), up to three additional months to fulfill recertification requirements. State law also requires any certifying or licensing body to give formerly certified/licensed individuals 45 days to submit materials to prevent the invalidation of the credential. This State law subverts the Program's requirements; however, this is something outside the Program's control.

Conformity Assessment: Standard not met.

Recommendation: The Program should explore options to prevent subversion of recertification deadlines.

6.7 Program Re-entry

Certification programs shall require individuals whose certification has been invalidated to re-enter the program by following the procedures and requirements specified by the program. Alternate paths for re-entry may be made available depending on the circumstances resulting in invalidation and the time elapsed since invalidation.

Assessment Findings: The Program offers several opportunities for individuals to meet the recertification requirements in a timely manner. Once an individual has failed to act on those opportunities in such a way that he or she can fulfill the requirements, the individual's certification is invalidated. With the sequential nature of the Program's certification structure, this individual must re-enter the program at the Grade I level if he or she wants to earn certification again. The only alternative path to certification available to those who have had their certification invalidated would be qualifying by reciprocity by holding a similar certification from another certification program.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

6.8 Compliance with Program Changes

Certification programs shall have a mechanism within the recertification process to bring certificants into compliance with changes to the program.

Assessment Findings: Though the requirements for certification in Iowa have changed little over the years, the Program does use the recertification process as a method to check for compliance with new requirements. Certificants are given a certification cycle to become compliant and meet the new requirements, whatever they may be. The Program's regulations do not allow for "grandfathering."

Conformity Assessment: Standard met.

Recommendation: The Program should continually ensure all existing certificants meet the current requirements.

6.9 Review of Disciplinary Action

If a certified individual has been subject to disciplinary action, certification programs shall ensure that all conditions of the disciplinary action are satisfied prior to recertification.

Assessment Findings: The robust certification database the Program utilizes provides full details on each certificant, including any recent disciplinary action. The Program reviews this information at the time of recertification to ensure the terms of the action were adequately met at the time of recertification processing.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

6.10 Code of Conduct for Recertification

Certification programs shall require agreement to adhere to a code of conduct as a condition of recertification.

Assessment Findings: The Program does not currently have a code of conduct, so it cannot require adherence to or agreement to adherence to such a document for recertification. Again, the Program is considering developing a code that will be used for both initial certification eligibility and recertification.

Conformity Assessment: Standard not met.

Recommendation: The Program should follow through with its intentions to develop a code of conduct, and require agreement to adherence to the code for recertification.

Standard 7 – Review

7.1 Stakeholder Involvement

Certification programs shall routinely inform, solicit opinions from, and enlist the involvement of industry groups or committees associated with the operation of water and wastewater systems/facilities, the certification of operators, and training of operators relative to the administration of the certification program.

Assessment Findings: Program staff routinely informs, solicits opinions from, and enlists the involvement of several stakeholder groups. Program staff meets quarterly with the IJOCC, but will contact the committee or its members between meetings for input on specific issues. This committee is also involved in program strategic planning every five years. Staff conducts public hearings when considering any rule changes, maintains an informational website, and sends information via email to its list of operators, municipalities, and other stakeholders. The Program maintains an active membership

with ABC so it can routinely network with and gain the perspective of other certification programs. Entities identified as stakeholders include the IAMU, community colleges, other entities within Iowa DNR, and Iowa chapters of the AWWA, WEF, and RWA. These stakeholders have been involved in all rule or regulation changes.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

7.2 Internal Review

Certification programs shall annually perform internal reviews of their environmental certification programs.

Assessment Findings: As with most programs, internal review is an on-going practice accomplished by resolving issues that arise during the routine functions of the Program. The Program was undergoing internal review at the time of this report in order to provide EPA Region 7 the annual report it expects. The Program drafts a similar report for annual departmental strategic planning. At the time of this report, Program staff were reviewing policies to determine if any legislative changes were required and reviewing financials to determine if any fee changes needed are required. Staff had already noted some of the issues identified within this report, primarily utilization of the Program's current system classification method and the problems associated with having a combined water treatment/distribution certification. The program staff has gone a step further than identifying the problem and is actively researching solutions for the identified issues.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

7.3 External Review

Certification programs shall require external reviews to be conducted

- A. at least once every five years;*
- B. by entities with relevant certification experience; and*
- C. by entities with no direct reporting responsibility to or a conflict of interest with the certification program being reviewed.*

Assessment Findings: The most recent external review of the Program was the assessment that provides the basis for this report. As one of the few organizations devoted specifically to operator certification and having recently developed its *Model Standards of Operator Certification*, ABC is uniquely qualified to conduct external reviews of operator certification programs. Recognizing that the Program is an ABC member the SME assessor assigned to this assessment was an administrator from a

non-member program in order to minimize any conflicts of interest. The Program intends to use the assessment and this report to provide validation for future program changes.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.

7.4 Review Components

Certification programs shall require internal and external reviews to include

- A.** *program summary documenting the certification program's mission and the alignment of this mission with the lead agency, department, or association;*
- B.** *staffing resources, including sufficient staff and board member credentials;*
- C.** *budget, cost, or revenue analysis;*
- D.** *examination process (see Standard 4);*
- E.** *process for identification of training needs;*
- F.** *enforcement process and activity (see Standard 5);*
- G.** *business processes and regulations;*
- H.** *continuing education review process, including relevancy (see Standard 6);*
- I.** *initial certification and recertification processes;*
- J.** *data management and integrity;*
- K.** *response to previous program reviews;*
- L.** *stakeholder involvement;*
- M.** *status of operators and statistical trends;*
- N.** *outreach; and*
- O.** *strategic plan.*

Both internal and external reviews shall include an assessment of adequacy along with identified issues and recommendations for improvement in the areas listed above.

Assessment Findings: The Program's staff and stakeholders routinely evaluate the Program against all items listed in **Standard 7.4**, though certain reviews may not require all items listed to be addressed. The assessors considered all criteria in **Standard 7.4** during their assessment and development of this report.

Conformity Assessment: Standard met.

Recommendation: The Program need not take any additional action on this matter at this time.