MAJOR INDUSTRY CHANGES IN OPERATOR CERTIFICATION:
IS STATE CERTIFICATION SUITABLE TO PROTECTING
YOUR TRIBE’S PUBLIC HEALTH AND SOVEREIGNTY?

Presentation at
Tribal Lands and Environment Forum
Spokane, Washington
August 13-16, 2018

Presented by
Brian Bennon
Director, ITCA Tribal Water Department

The Inter Tribal Council of Arizona, Inc. is an equal opportunity provider and employer
1) Introduction

2) SDWA Compliance Trends

3) Tribal Operator Certification

4) Changes to the national standardized operator certification exams
   a) Brief overview of credentialing, licensure and certification

5) Response to changes by operator certification programs

6) Questions
Despite the tremendous advances in water and sanitation technology over the past century, water-related diseases globally still kill more people every year than all forms of violence, including war (United Nations, 2010).

46% of people on Earth do not have water piped to their homes.
2.1 billion people globally lack safe water at home (2015)

- 263 million spend more than 30 minutes per round trip collecting water
- 159 million drink water directly from surface sources, such as streams or lakes
- 844 million do not have basic drinking water services

4.5 billion people globally have no toilets at home that safely manage excreta (2015)

- 2.3 billion still do not have basic sanitation services
- 892 million defecate in the open
- 600 million share a toilet or latrine with other households

Universal and equitable access to safe water for all by 2030

Universal and equitable access to safe sanitation for all by 2030
End open defecation
Safe Drinking Water & Adequate Sanitation

Death Rates for Typhoid Fever in the USA

Chlorination begins


Top Five 20th Century Achievements Contributing to the Quality of Life

1. Electrification
2. Automobile
3. Airplane
4. Safe, Abundant Water
5. Electronics

Safe Drinking Water & Adequate Sanitation


Access to Safe Drinking Water Saves Lives

Populations with Access to Safe Drinking Water (percent of population)

<table>
<thead>
<tr>
<th>100%</th>
<th>80%</th>
<th>60%</th>
<th>40%</th>
<th>20%</th>
<th>0%</th>
</tr>
</thead>
</table>

Deaths of Children Under 5 Years of Age (deaths per thousand)

<table>
<thead>
<tr>
<th>0</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
</tr>
</thead>
</table>

Countries:
- Ethiopia
- Cambodia
- Nigeria
- Peru
- China
- Sudan
- Indonesia
- Brazil
- Honduras
- Pakistan
- Thailand
- Mexico
- Syria
- Egypt
- Iran
- United Arab Emirates
- New Zealand
- Sweden
- United States
Outbreaks of waterborne illnesses caused by biological constituents can and do still occur in affluent communities.

- Walkerton, Canada case in 2000, which resulted in several deaths and over 400 people requiring life-long kidney dialysis treatment.

- During the time period of 1920 to 2002, the U.S. experienced an average of 22 waterborne-disease outbreaks, over 430,000 illnesses, and 73 deaths per year (Craun, et al, J. of Water and Health 4, Suppl. 2, pp. 3-30, 2006).

  - The largest of these outbreaks occurred in Milwaukee in 1993, when an outbreak of *Cryptosporidium* in the drinking water system caused an estimated 405,000 illnesses and 50 deaths.
Current Significance

During 2013-2014, 19 states reported a combined total of 42 drinking water outbreaks resulting in 1,006 cases of illness, including 124 hospitalizations and 13 deaths.

(Centers for Disease Control and Prevention (CDC) study published in 2017)

- 50% by chemical or toxin exposure
- 29% by parasitic infection (*Cryptosporidium* or *Giardia*), and by *Legionella* infection.

- Flint, Michigan
Safe Drinking Water & Adequate Sanitation

Source: Safe Water & Waste Disposal Facilities Fact Sheet, Indian Health Service, January 2013
The Importance of Safe Drinking Water & Sanitation

“The need for safe and reliable drinking water and effective wastewater management is fundamental to the health, safety, welfare, economic viability and self-determination goals of Tribal communities throughout Indian Country”

NATIONAL CONGRESS OF AMERICAN INDIANS

The National Congress of American Indians
Resolution #ANC-14-052

TITLE: Support for Sustained Federal Funding for Tribal Water & Wastewater Operator Certification Programs and Funding Parity with State Operated Certification Programs
Access to Safe Water & Sanitation

% of Homes in Indian Country
Lacking Safe Water and/or Basic Sanitation

Based on work by the multi-agency Infrastructure Task Force (ITF)

U.S. 2015
Reduce 50%
“Access Goal”

0.6% non-Indian homes in U.S.
lacking such infrastructure
Over 660,000 American Indian and Alaska Native men, women, and children lack access to clean and reliable water sources or basic sanitation.

Lack of access makes thousands sick, causes schools to close, and blocks tribal economic development.

According to data from the Indian Health Service (IHS), nearly half (48%) of all homes on tribal land lack access to adequate drinking water, sewage, or solid waste disposal facilities. Many of these 190,697 homes lack basic services like clean, running water; flush toilets; showers or baths; and kitchen sinks. Others need some form of new or improved water or sewage facility. By comparison, less than 1% of homes lack some or all sanitation facilities in the U.S. as a whole.

Though the IHS does not track the number of people affected, the U.S. Census Bureau reports that American Indians and Alaska Natives had an average household size of 3.47 people (including both reservation and off-reservation trust land), yielding an estimate of 662,000. The actual number is likely significantly higher as reservation homes tend to be even more densely populated than off-reservation homes. Due to decades of housing shortfalls on reservations, Native families are two-and-a-half times more likely to live in an overcrowded home than the general population.
## Access to Safe Water & Sanitation

### V. Results

<table>
<thead>
<tr>
<th>Circle</th>
<th>AI/AN Homes</th>
<th>percent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>398,762</td>
<td>47.8</td>
<td>AI/AN homes included in the I.H.S. data system</td>
</tr>
<tr>
<td>B</td>
<td>190,697</td>
<td>36.3</td>
<td>AI/AN homes identified as needing some form of sanitation facility improvement</td>
</tr>
<tr>
<td>C</td>
<td>144,706</td>
<td>6.5</td>
<td>AI/AN homes without access to ADEQUATE sanitation facilities</td>
</tr>
<tr>
<td></td>
<td>26,018</td>
<td></td>
<td>AI/AN homes without access to safe water supply system and/or sewage disposal system</td>
</tr>
</tbody>
</table>

#### Figure 1. Universe of AI/AN Homes Requiring Sanitation Facility Improvements

- **Circle A** (DL 2, 3, 4 and 5)
- **Circle B** (DL 3, 4 and 5)
- **Circle C** (DL 4 and 5)

### Reports to Congress

**Oct 5, 2017**

**Sanitation Deficiency Levels**

[2015 Annual Report to Congress on Sanitation Deficiency Levels for Indian Homes and Communities](https://example.com/report) [PDF - 2.89 MB]
Outline of Presentation

1) Introduction

2) SDWA Compliance Trends

3) Tribal Operator Certification

4) Changes to the national standardized operator certification exams
   a) Brief overview of credentialing, licensure and certification

5) Response to changes by operator certification programs

6) Questions
Compilied from U.S. EPA, National Public Water Systems Compliance Reports and ECHO Database
SDWA Violations Disparity in Indian Country

**ANY VIOLATIONS**

Indian Country Average: 57%

Nationwide Average: 34%

Source: USEPA Enforcement and Compliance History Online (ECHO) accessed August 5, 2018
SDWA Violations Disparity in Indian Country

Violations: **HEALTH-BASED**

- Indian Country Average: 15.5%
- Nationwide Average: 9.2%

Source: USEPA Enforcement and Compliance History Online (ECHO) accessed August 5, 2018
SDWA Violations Disparity in Indian Country

Violations: **MONITORING & REPORTING**

Indian Country Average: 51.1%

Nationwide Average: 26.3%

Source: USEPA Enforcement and Compliance History Online (ECHO)
accessed August 5, 2018
SDWA Violations Disparity in Indian Country

Violations: **PUBLIC NOTIFICATION & OTHER**

**Indian Country Average:** 13.2%

**Nationwide Average:** 9.9%

Source: USEPA Enforcement and Compliance History Online (ECHO) accessed August 5, 2018
SDWA Violations Disparity in Indian Country

**SERIOUS VIOLATIONS**

Indian Country Average: 10.4%

Nationwide Average: 3.3%

Source: USEPA Enforcement and Compliance History Online (ECHO) accessed August 5, 2018
Disparities in Water Quality in Indian Country

*Otakuye Conroy-Ben and Rain Richard

Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ
*Corresponding Author

Figure 2. Customer source water in Indian Country, by state.
Disparities in Water Quality in Indian Country

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Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ
*Corresponding Author

Figure 6. Health-based violations by state, with Indian Country population percentage affected in parentheses. Each pie chart is broken down by contaminant, and the bar graph shows states impacted by only one contaminant or rule violation. ESTWR = enhanced surface water treatment rule; SWTR = surface water treatment rule; HAA = haloacetic acid; THM = trihalomethane; Ra = combined radium; DEHP = diethyl hexyl phthalate; DBPR = disinfection byproduct rule; NV = 0.3%; OR = 0.2%.
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Certification designates the water/wastewater system operator as a **public health professional** and demonstrates the operator has the skills, knowledge, education and experience necessary to deliver safe water / adequate sanitation.

— from U.S. EPA (75 Federal Register 48329, Aug. 2010)

• Certification = a professional credential designed specifically to protect public health
Operator Certification

Primacy agencies typically require facility/system operation by certified operators.

The Thought Process on Operator Certification Requirements:

(1) The facility owner is responsible for the facility compliance.

(2) As part of compliance, the facility must be operated by a certified operator.

(3) Therefore, the facility owner must require the operator is certified.

Sanitary Surveys are one of the tools being used in Indian Country to measure Tribal facility compliance and includes checking the facility is operated by certified personnel.
Primacy

In General Terms:
Water and wastewater facilities that operate on Federal Trust Tribal Lands are regulated by the U.S. Environmental Protection Agency (USEPA) and must comply with federal regulations.

- Warning: Tribal operators seeking credentialing with a state may be accountable for knowing state-specific regulations that may not be congruent with the federal baseline regulations that are actually enforced by the primacy agency on Tribal Lands.
TRIBAL Operator Certification

- Tribal operator certification is an additional way by which Tribal governments can exercise their sovereignty and promote their self-determination goals.

  - by Tribes, for Tribes
    - Advisory Committee
    - Tribal Operator Workgroup
EPA Approved the ITCA Program

2005

2008

Federal Register
Aug. 10, 2010

Federal Register / Vol. 75, No. 153 / Tuesday, August 10, 2010 / Notices

48520

TRIBAL DRINKING WATER OPERATOR CERTIFICATION PROGRAM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

2005

2008

EPA Approved the ITCA Program

Tribal Drinking Water Operator Certification Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces the program details of EPA's voluntary Tribal Drinking Water Operator Certification Program. The program began on October 1, 2010. The program enables qualified drinking water operators at public water systems in Indian country to be recognized as certified operators by EPA. This program will provide the benefits of certification to both the public water system operators and the Tribal communities they serve.

The Tribal Drinking Water Operator Certification Program is available in the nine EPA regions with federally recognized Tribes. Public water system operators in Indian country seeking certification are encouraged to contact the ACOE, the Association of State Drinking Water Administrators (http://www.assocwater.org) or the Tribal Water Association of Arizona (TWA) (http://www.thetwa.org) for assistance or information.

Federal Register / Vol. 75, No. 153 / Tuesday, August 10, 2010 / Notices

48520

Tribal Drinking Water Operator Certification Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces the program details of EPA's voluntary Tribal Drinking Water Operator Certification Program. The program began on October 1, 2010. The program enables qualified drinking water operators at public water systems in Indian country to be recognized as certified operators by EPA. This program will provide the benefits of certification to both the public water system operators and the Tribal communities they serve. Through the training requirements to receive and maintain certification, operators learn how to supply drinking water that meets all standards and gain an understanding of the associated public health benefits. Certification demonstrates the operator has the skills, knowledge, and experience necessary to deliver safe water to the consumer. Certification designates the water system operator as a public health professional and demonstrates the operator has the skills, knowledge, and experience necessary to deliver safe water supporting consumer confidence.

FEDERAL REGISTER: The Safe Drinking Water Act (SDWA, 42 USC 300f-4791) requires the United States Environmental Protection Agency (EPA) to establish a Tribal Drinking Water Operator Certification Program. A Tribal Drinking Water Operator Certification Program is available in the nine EPA regions with federally recognized Tribes.

Supplemental Information:

A. How can I get copies of this document and other related information?

1. Electronic Access: EPA’s Tribal Drinking Water Operator Certification Program updates and application materials regarding this program can be found at http://www.epa.gov/safewater/tribaloperator/traditional.

2. Hard Copies: Hard copies of EPA’s Tribal Drinking Water Operator Certification Program updates and application materials regarding this program can be obtained by contacting Kyle Canby, Office of Ground Water and Drinking Water, Drinking Water Protection Division, Protection Branch, 4060M, Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460; telephone number: 202-594-3823; e-mail address: canby.kyle@epa.gov.

B. Approved Providers and Reciprocity

Although participation in this Certification Program is voluntary, EPA requires a Tribe to have, or agree to obtain, within a certain time frame, a certified operator(s) for their public drinking water system(s) in order to receive funds in the Drinking Water Infrastructure Grant Tribal Set-Aside (DWI-GTSA) program. The Federal drinking water regulations require some system operators to be “qualified.” Participation in EPA’s Tribal Drinking Water Operator Certification program meets this requirement. Operators certified through this program will be listed on the Region on their “registered” pursuant to the regulations [i.e., CFR 141.130(b)]. The EPA Tribal Drinking Water Operator Certification program is available in the nine EPA regions with federally recognized Tribes.
ITCA Tribal Operator Certification

Professional Certification
ITCA is a U.S. EPA-approved Provider of Tribal Operator Certification:

• Annually provides 19 different types of operator training classes for Tribal drinking water and wastewater system operators;

• Provides standardized certification examinations to Tribal drinking water and wastewater system operators and managers; and

• Administers professional certification to Tribal personnel.

Professional Certifications
Water Treatment - Levels 1, 2, 3, and 4 (U.S. EPA approved)
Water Distribution - Levels 1, 2, 3, and 4 (U.S. EPA approved)
Very Small Water Systems – VSWS (U.S. EPA approved)
Wastewater Collection - Levels, 1, 2, 3, and 4
Wastewater Treatment - Levels 1, 2, 3, and 4
Utility Management Certification - Level 1
Nationwide Tribal Operator Certification Services

EPA-approved by tribes, for tribes
Tribal Op-Cert programs

ITCA
Inter Tribal Council of Arizona
Regions 5-10

USET
United South & Eastern Tribes
Regions 1-4
US Environmental Protection Agency
SDWIS Database
data query on December 4, 2017
based on data extracted on October 23, 2017

Active Tribal Public Water Systems
USEPA PWS Classification System

<table>
<thead>
<tr>
<th>USEPA Region</th>
<th>Very Small 0-500</th>
<th>Small 501-3,300</th>
<th>Medium 3,301-10,000</th>
<th>Large 10,001-100,000</th>
<th>Very Large 100,000+</th>
<th>Regional Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>85</td>
<td>37</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>130</td>
</tr>
<tr>
<td>9</td>
<td>201</td>
<td>85</td>
<td>22</td>
<td>14</td>
<td>0</td>
<td>322</td>
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<tr>
<td>Navajo</td>
<td>85</td>
<td>67</td>
<td>7</td>
<td>2</td>
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<td>8</td>
<td>91</td>
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<tr>
<td>6</td>
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<td>41</td>
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<td>3</td>
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<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Totals: 584 Very Small, 318 Small, 74 Medium, 25 Large, 0 Very Large

Regional Totals: 956, 95.5%
ITCA Service Area: 45, 4.5%

1,001 systems

Percent: 58.3% Very Small, 31.8% Small, 7.4% Medium, 2.5% Large, 0% Very Large

Total: 902 systems
Percent: 90.1%
During the time period 2010-2016:

- 217 training/certification events
- 3,730 seats filled by tribal personnel
- Representing 140 tribal nations from across 18 states
- Earned 48,000 training contact hours
- Processed 3,134 certification applications
- 860 new certifications issued
The ITCA National Tribal Water & Wastewater Operator Certification Program

Legend
- Participant
- Tribal Land
- EPA Regions
  - EPA Region 5: 7
  - EPA Region 6: 8
  - EPA Region 7: 9
  - EPA Region 8: 10
  - EPA Region 9: 5
  - EPA Region 10: 6

As of 2017, there are just over 160 participating tribes in the Tribal Water and Wastewater Certification Program.

- EPA Region 5: 11 participating tribes
- EPA Region 6: 20 participating tribes
- EPA Region 7: 8 participating tribes
- EPA Region 8: 17 participating tribes
- EPA Region 9: 91 participating tribes
- EPA Region 10: 21 participating tribes

Tribal Participation in the ITCA National Tribal Water and Wastewater Operator Certification Program
Generally, there are 3 primary eligibility criteria:

- **Education & Training**
- **Work Experience**
- **Standardized Proficiency Exam**

Facility classification level determines the level of operator certification needed (the bar height).
### Eligibility Criteria

<table>
<thead>
<tr>
<th>Education</th>
<th>VSWS</th>
<th>Certification Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>High School Diploma or GED</td>
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<td></td>
<td>High School Diploma or GED</td>
<td>High School Diploma or GED</td>
<td>High School Diploma or GED</td>
<td>High School Diploma or GED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prerequisite Training</th>
<th>VSWS</th>
<th>Certification Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>5 hours of approved training</td>
<td></td>
<td></td>
<td>12 hours of approved training</td>
<td>30 hours of approved training</td>
<td>50 hours of approved training</td>
<td>80 hours of approved training</td>
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</table>

<table>
<thead>
<tr>
<th>Passing Score</th>
<th>VSWS</th>
<th>Certification Level</th>
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<th>4</th>
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<tr>
<td>70% or higher</td>
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<td>70% or higher</td>
<td>70% or higher</td>
<td>70% or higher</td>
<td>70% or higher</td>
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</table>

<table>
<thead>
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<th>Qualifying Experience</th>
<th>VSWS</th>
<th>Certification Level</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Have minimum of 6 months of on-the-job experience operating a water system</td>
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<tr>
<td>Have minimum of one (1) year of on-the-job experience operating a water system</td>
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</tr>
<tr>
<td>Have minimum of two (2) years of operator experience, including a minimum of one (1) year of Direct Operational Responsibility experience while holding Level 2 operator certification; and</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have a minimum of four (4) years of operator experience, including: a minimum of one (1) year of Direct Operational Responsibility experience while holding Level 2 operator certification; and</td>
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<tr>
<td>Have a minimum of six (6) years of operator experience, including a minimum of two (2) years of Direct Operational Responsibility experience while holding Level 3 operator certification; and</td>
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<tr>
<td>Be currently operating a system/facility that is classified as either a Level 2 or Level 3 plant.</td>
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<td></td>
</tr>
<tr>
<td>Be currently operating a system/facility that is classified as either a Level 3 or Level 4 plant.</td>
<td></td>
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</tr>
</tbody>
</table>
Eligibility Determinations

Pre-Screening for whether or not candidate is eligible to take the certification exam
Based on the ABC Model Standards

- 8-page Application
- Facility Classification Worksheets
- Contractual Agreement includes Enforceable Code of Conduct
- Resigning with Renewal
- Official Job Description Required with Upper Levels

K. CODE OF CONDUCT:
To be completed by applicant. Read the following statement and sign and date.

ITCA Code of Conduct for Tribal Water System Operators

Using my best judgment and operating skills, I will always work to protect the public health to ensure good service and to protect public property and the environment. I will, at all times, apply my skills in operating water system equipment in a manner that will promote and encourage the highest quality of water system operation within the industry. I will properly and accurately complete required records, follow and comply with all applicable requirements of federal, tribal and local laws and regulations, maintain my competence in the field by remaining current with changes in the industry and continuing my education, and work with my tribal community to establish and adhere to distinct and safe operating policies for the public utilities over which I am entrusted.

I agree to comply with this ITCA Code of Conduct for Tribal Water System Operators at all times as a condition of holding and maintaining ITCA certification and to notify ITCA immediately should I no longer meet any requirements of this Code of Conduct or any other applicable requirement of law. In addition to the foregoing, as a condition of testing and continued certification, I covenant and agree to:

- Represent myself truthfully and honestly throughout the entire certification process;
- Maintain the certification exam content as confidential and protected;
- Not disclose, publish, reproduce or transmit the exam content in any form, verbal, written, or electronic, under any circumstances;
- Adhere to all test site rules and make no attempt to complete the test dishonestly or to assist any other person in doing so;
- Refrain from activities that may jeopardize the integrity of the ITCA Certification Program;
- Not misrepresent nor permit a misrepresentation of my qualifications or the qualifications of my associates; and
- Not conduct myself in a manner that subverts or attempts to subvert the minimum certification requirements, application process, or examination process.

I understand the ITCA certification, logo, and marks for the certification designation are the property of the Inter Tribal Council of Arizona, Inc. (ITCA). I agree to:

- Use such property only in an approved manner;
- Uphold and follow all Tribal Operator Certification Program policies and procedures required by the ITCA to remain in good standing;
- Report to the ITCA Tribal Operator Certification Program any pending litigation and resulting resolution related to my work in water system operation and utility management; and
- Avoid any interest or activity that could influence my judgment or bias my decisions as an operator of water systems in a manner that does not conform to the public health or promote environmental safety.

I have read and understand the ITCA Code of Conduct for Tribal Water System Operators. I understand that my certification shall be valid only so long as I agree with and adhere to this Code of Conduct. No certification shall be valid if obtained by misconduct. I recognize that a failure to adhere to this Code of Conduct is grounds for the suspension and/or revocation of my certification.

Applicant’s Original Signature
(Please Sign in Blue Ink)

Date

ITCA TWS Revised February 2015
Page 7 of ___
Using my best judgment and operating skills, I will always work to protect the public health to ensure good service and to protect public property and the environment. I will, at all times, apply my skills in operating water facility/system equipment in a manner that will promote and encourage the highest quality of water facility/system operation within the industry. I will properly and accurately complete required records, follow and comply with all applicable requirements of federal, tribal and local laws and regulations, maintain my competence in the field by remaining current with changes in the industry and continuing my education, and work with my tribal community to establish and adhere to distinct and safe operating policies for the public utilities over which I am entrusted.
Computer-Based Testing (CBT)  
Nationwide Network of Testing Centers  
Through PSI/AMP and ABC

2018 Computer Based Testing

Advantages of Computer-Based Testing:

- Available year-round
- Schedule an exam date, time and location that is most convenient for you
- Choose from over 200 testing locations throughout the country
- Receive your exam score immediately

Locations are subject to change
National Standardized Operator Certification Exams were developed psychometrically, starting with a Job Analysis, which determined the knowledge, skills, and abilities that are needed to perform the tasks of operators.

This included mastery/competency of knowledge and skills required for a facility to be compliant with baseline public health regulations.

National standardized operator certification exams promotes career mobility and portability of the certification credential.
Reciprocity

Equivalency of operator certification between two certifying authorities

Purpose is for career mobility

Process is easier if the two agencies use the same standardized exams

Jurisdiction No. 1

Exam waiver

Jurisdiction No. 2

To date, ITCA has reciprocity arrangements with the following states. Arizona, California, Nevada, New Mexico, Colorado, Washington, and Oregon
Outline of Presentation

1) Introduction

2) SDWA Compliance Trends

3) Tribal Operator Certification

4) Changes to the national standardized operator certification exams
   a) Brief overview of credentialing, licensure and certification

5) Response to changes by operator certification programs

6) Questions
The Psychometric Process
= credential development and maintenance that is scientifically based and legally defensible
Includes commitment to regular evaluation and revision that is guided by professional Psychometricians and conducted by committees of volunteer subject-matter experts (SMEs)

In 2017, there was a “reboot” of the national standardized exams
Starting at the beginning with new Job Task Analyses

The psychometric process was influenced by business decision:
Creation of an international credential—the Professional Operator (PO) certification

As a result, the domain of knowledge of public health protection requirements and regulations were not included in the Job Analysis, the Need-to-Know Criteria, and the exams
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Licensure and Certification are two forms of credentialing used by a third party to recognize the competence, qualification, or expertise of individuals providing specified services.

The difference is commonly misunderstood and both terms are often used interchangeably. Each is unique and distinctly different in terms of the authority that is granted.

--American Association of Engineering Societies (AAES)
Credentialing

Licensure: A process by which a governmental agency grants time-limited permission to an individual to engage in a given occupation after verifying that he/she has met predetermined and standardized criteria (usually education, experience, and examination) and provides the means to regulate the individual’s practice after the license is granted. (AAES definition)

Certification: A voluntary process by which a non-governmental agency grants recognition to an individual after verifying that he/she has met predetermined and standardized criteria. (AAES definition)

- Not the same as a certificate program, which awards a “certificate of completion” upon finishing a training curriculum.
Licensure is the most restrictive form of credentialing and refers to the granting of a license by a governmental or delegated body to practice a profession.

Licensure prohibits anyone from practicing the profession who is not licensed, regardless of whether or not the individual has been certified by a private organization.

Each license is valid only for the jurisdiction for which it was granted so it may be necessary for a professional to hold a license in multiple jurisdictions based on their field of practice.
Credentialing through CERTIFICATION

An earned credential awarded by a private sector, non-profit, professional association or independent board to those who, through an assessment process, demonstrate mastery/competence of knowledge and skills required by the certifying organization.

Certification is not a permission to act, does not involve the regulatory power of the jurisdiction and does not grant the privilege to practice.

Certification may be withdrawn by the issuing organization but does not restrict an individual from continuing to offer their services unless required by the employer in order to perform certain tasks within that organization.

Certification can be as rigorous as a licensure program; demonstrates attainment of a body of knowledge within a specialized area; and supports the concept of qualifications-based selection.
“Portability of education and experience can be part of the value of a certification program, allowing the certified expert to demonstrate to potential employers and vendors that he/she meets the minimum requirements even if their experience and/or education comes from another part of the world.” (AAES)
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Some operator certification programs take the position that:

1) Maintaining facility/system compliance with public health protection requirements and regulations is a fundamental and integral part of the roles and responsibilities of an operator; and

2) It is the responsibility of the certification authority to measure a candidate’s understanding of the applicable public health protection requirements and regulations; and

3) Reciprocity is not an option for operator certification that is issued by a jurisdiction that does not measure a candidate’s understanding of the applicable public health protection requirements and regulations.
Many operator certification authorities were surprised to learn about the removal of public health protection requirements and regulations from the new 2017 edition standardized exams.

In May 2017, ITCA was a few weeks away from using the new 2017 standardized exams when the State of Arizona informed ITCA of the removal of regulatory exam questions and informed ITCA the State of Arizona would not recognize ITCA certification through reciprocity if the 2017 exams were used.

Shortly thereafter, the State of New Mexico informed ITCA of the same warning.
Operator Certification Program Responses

September 20, 2017
A national webinar debuting the new (post pilot) 2017 standardized exams took place.

The previous standardized exams are now stagnant, no longer updated, and will only be available as a “customized exam” with additional annual fees.

The webinar highlighted the approach taken by the at least two states for the use of the new 2017 standardized exams.

- Candidates must take a state regulations training course as a requirement for pre-certification and for renewal.
- In one state, candidates to download the state’s regulations training slides from their website and to complete a form attesting they have read the training slides.
- Reciprocity applicants are required to take the state regulations training along with a standardized exam.
Effects of the Changes

The effect of these changes includes:

• By not testing for operator understanding of federal baseline public health regulations, the new standardized exam does not definitively cover one of the most fundamental and quintessential roles of the operator;

• Mandatory state-specific regulations training causes greater variability and less portability of certifications;

• Restricting a domain of knowledge to a specific single jurisdiction is a step towards a licensure credential;

• Mandating a specific training offered only by the certifying agency is in contradiction to ANSI/ISO certification standard 17024; and

• Significant jurisdictional issues in Indian Country.
In the past, proper credentialing authorities have used certification exams that covered, among other things, the knowledge domain of public health protection requirements and regulations.

Proper credentialing authorities have always had a training requirement for eligibility.

Reputable or approved training curricula have always included operator training on public health protection requirements and regulations.
Analogy

If driver’s license exams removed questions on driving rules and instead focused purely on how to operate and maintain a vehicle, would roadways be any safer? Would there be a decline in the number of traffic accidents or tickets?
Is protecting public health and the environment any less relevant now to the drinking water and sanitation services industry?
The ITCA Plan to Develop Federal Regulations Exam Modules

ITCA is developing Federal Regulations Exam Modules.

The purpose of the Federal Regulations Exam Modules is to supplement the new 2017 international standardized certification exams with psychometric tools for assessment of candidate’s understanding of applicable USA baseline federal public health protection requirements and regulations.

Development of the Federal Regulatory Exam Modules is being guided by consultant Psychometricians and will rely on volunteer subject-matter experts from the following three groups.

- Representatives from the regulated community (operators and utility personnel); and
- Experts on federal regulations; and
- Experts from partnering entities (State Op-Cert Programs and TA providers)

The Federal Regulations Exam Modules will meet standards for possible subsequent accreditation.
ITCA intends to partner with interested states, including Arizona, for the development and/or use of the Federal Regulations Exams (forms and/or exam questions/items).

It is thought that a coalition of partnering certification entities could be used to ensure that those who are allowed to use the Federal Regulations Exam Modules commit to the tasks of maintaining and updating the Exam Modules over time.

Under ITCA’s use of the exams, candidates would be required to pass both the new 2017 Standardized Exam and the applicable Federal Regulations Exam Module. Both exams will be regarded separately. Candidate would be allowed to retest for either or both exams to ultimately achieve a “pass + pass” scenario.

ITCA additionally intends to revise its operator certification eligibility criteria for both pre-certification and certification renewal applications to include required training contact hour on baseline federal regulations.
Development of Federal Regulations Exam Modules

Expected Project Completion by March 2020

Start Date Tentatively Scheduled for September/October, 2018

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<th>Program</th>
<th>Psychometric Process Steps</th>
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<tr>
<td>Wastewater Regulations Module (Collections &amp; Treatment)</td>
<td>Job Analysis (2.5 days)</td>
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<td>Item Writing (3 days)</td>
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