

## SETTING THE BAR AS THE INDUSTRY LEADER

### *Joint V&E Committee Meetings Standardizing ABC's Validation Process*

**PHOENIX** – Almost 40 subject matter experts (SME's) serving on ABC Validation & Examination (V&E) committees gathered in Phoenix, Ariz. in late January to review results of ABC's recent Job Task Analysis (JTA) surveys and discuss the 2011 ABC Standardized Exam Blueprints.

"The two days spent in Arizona were invaluable," said V&E Council Director Brian Thorburn who chairs the Water Treatment V&E Committee. "The Water Treatment, Wastewater Treatment, Collection and Distribution V&E Committees were brought together to ensure the same V&E process was being followed."

Thorburn says committee members had an opportunity to hear an in-depth overview of the test development process, discussion of the JTA process and the critical importance of validity and reliability from professional psychometricians.

"Prior to breaking into separate committees, we heard the science behind building an exam and had the opportunity to ask questions about examination development."

### *What's Next?*

**ABC V&E committee members and ABC staff are continuing development of 2011 ABC Standardized Exams set for release later this year.**



*(Above) V&E Committee members review materials at the January meetings. Subject matter experts spent two days working on tasks related to the development of the ABC 2011 standardized examinations.*

The services of Professional Testing, Inc. were secured by ABC in 2010 to assist with the development and administration of revalidation surveys for operator certification examinations. The results of a third-party psychometric audit in spring 2010 encouraged the ABC Board of Directors to revalidate past job analyses in order to maintain compliance with the highest industry certification standards.

During the January meetings, the results of the JTA validation study were presented to V&E committee members for review and approval. In keeping with previous revalidation efforts, the decision criteria used for the inclusion of tasks in the examination blueprint were a criticality value of at least 10.5, and a percent performing value of at least 50%. However, V&E committee members were given the opportunity during the meet-

*(Setting the Bar continued on page 6)*

### WHAT'S INSIDE

This edition of *The Certifier* holds the latest in certification news and events, including:

- 2 Annual Conference Overview
- 3 Exam Development Series: Certification's Critical Role
- 4 ABC Highlights: Read the latest ABC news

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## Southwestern Sunshine Plays Host to ABC's 24<sup>th</sup> Annual Conference

PHOENIX – Greeted by bright Arizona skies and the smell of sizzling fajitas, over 100 conference attendees representing the United States, Canada, Guam, Caribbean and Egypt celebrated those serving on the front lines of public health protection beginning with an opening reception set in the backdrop of the Phoenix Mountain Preserve.

ABC's 24th Annual Conference was held Jan. 25-28, 2011, in Phoenix-Scottsdale and offered an opportunity for attendees to share ideas with other programs, network and hear numerous technical presentations. Attendees heard from over 25 speakers discussing

topics ranging from certification, training and legal issues.

The opening conference session included keynote speeches from both the Water Environment Federation (WEF) and the American Water Works Association (AWWA). Cordell Samuels, WEF Board of Directors Vice-President presented: "Making a Difference in Today's Water Quality Challenges" where he offered an overview of WEF's commitment of working together as water professionals to meet future challenges.

David LaFrance, AWWA Executive Director echoed the importance of water quality during his presentation entitled: "ABC and AWWA: Partners in Public Health Certifica-

*(Annual Conference continued on page 6)*

*(From top) Conference attendees laugh during Mark Mayfield's humorous presentation; AWWA Executive Director David LaFrance delivers the water keynote; attendees pictured during a general session. For more conference photos, see page 5.*



**Special thanks to ABC's Annual Conference sponsors: Applied Measurement Professionals, Inc. (AMP), CEU Plan & American Water Works Association.**

### Honoring those 'Making a Difference'

The theme of this year's Annual Conference was 'Making a Difference' - something the 2011 ABC award recipients have each been doing throughout their careers. A ceremony on Jan. 26, 2011, recognized several individuals and a certification program that have had an impact on the industry:

#### **Harris Seidel Lifetime Achievement Award**

**Cheryl Bergener**, Washington Waterworks Certification Program Manager (retired in 2010)

**Kathleen Cook**, Ohio Water Environment Association

#### **Robert C. McAnespie Outstanding Certification Officer Award**

**William Hyslop**, Environmental Operators Certification Program; British Columbia

#### **Jess Jones Excellence in Service Award**

**Harris Seidel**, ABC's first Executive Secretary and President

#### **Certification Program Award**

**Massachusetts Department of Environmental Protection & Department of Professional Licensure**

*(Top) From left, Robert "Bob" Hoyt, Kathleen Cook, Harris Seidel and Cheryl Bergener. Both Cook and Bergener were recipients of the 2011 Harris F. Seidel Lifetime Achievement Award. (Below) Hoyt pictured with William Hyslop, Outstanding Certification Officer Award recipient.*



## Exam Development Series:

# Certification's Critical Role

This article in ABC's Exam Development Series highlights the importance of a strong certification program in helping to ensure public health and protection.

As State and Provincial budgets tighten there will be greater pressure to review existing programs to ensure that they meet their objectives and provide value to taxpayers. Quantifying the value of operator certification programs can be challenging. This article and 'crunching the numbers' sidebar offer some of the reasons a strong certification program can help to protect public health and why using ABC services can save a state or province money.

Since New Jersey introduced the first operator certification program in 1918, virtually every state and province has followed suit. The premise behind certification is simple – without a well-trained, skilled operator workforce the best designed and constructed facility cannot be operated effectively. In addition, mandatory certification, through disciplinary measures, allows the state to remove certification from individuals demonstrating negligence and thus a risk to public health and the environment.

Sadly, experience has demonstrated just how important well trained and certified operators are to public health. In his book "Safe Drinking Water," Steve Hrudehy reviewed the failures that resulted in disease outbreaks in over 70 communities. He concluded that:

"Drinking water providers must accept that

providing continuously safe drinking water to all consumers at all times is a daunting task. This scientifically and technologically challenging undertaking continues to grow in its sophistication. These are characteristics of a knowledge-based industry. No amount of ...stringency in drinking water quality criteria will serve consumers better than having their drinking water providers well-trained. Governments who believe that the public is willing to sacrifice drinking water safety for modest cost savings will find that failures ultimately tied to such false economies are not viewed kindly by the public." (Hrudehy, 2004)

Likewise, in his final public inquiry report on the E. coli outbreak in Walkerton Ontario, which killed seven people, Justice Dennis O'Connor noted that "[Operator Certification] is an essential component of a safe drinking water system. (O'Connor 2002)." Justice O'Connor specifically referenced the importance of meeting or exceeding ABC and US-EPA certification standards. At the same time he recognized the importance for certification standards to change as the water and wastewater water industry evolves. Complacency in the water industry – the attitude that "the water's always been fine" can influence both operators and legislatures to the public's detriment (Smith, 1995).

Where the water industry has failed the cost to the public can be substantial. In the two outbreaks where economic analysis was conducted, Walkerton and Milwaukee, the cost to individuals and communities is staggering. In Walkerton, a small town of 5,000 people, the impact to the community was estimated at \$64,000,000 (Cdn). In addition tens of millions were spent by the province in assistance (Hrudehy, 2004).

Certification of operators is not an end on itself. Effective programs need to document how their requirements (education, training, experience, exams) directly relate to the skills and knowledge required to be an op-

(Certification continued on page 6)

## ON THE FRONT LINES

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- (Hrudehy, 2004) on the topic of Certification's Critical Role

# Crunching the Numbers

ABC's Testing Service develops nationally validated exams to support environmental certification programs. Membership with ABC includes access to psychometrically sound examinations. Developing an examination of similar quality is a costly option for certification programs. How much value does an ABC examination offer your program? *Take a look.*

## DEVELOPING AN EXAM

Recruitment of Subject Matter Experts to Conduct Process (Difficult to Quantify)

Job Task Analysis: \$20,000

Item Writing/Review: \$10,000

Create Test Forms: \$7,500

Cut Score Study: \$10,000

Item Analysis: \$3,000

Total Cost: \$50,500

## COST PER ADDITIONAL LEVEL IN EXAM

Create Test Forms: \$7,500

Cut Score Study: \$10,000

Cost per Additional Level: \$17,500

Estimated cost to develop a single exam with four levels: **\$103,000**

Cost for access to ABC's already developed exams: \$1,800\*

(ABC membership fee, based on 2,001 operator count)

**Savings: \$101,200  
(98% Savings)**

\*Per examinee fees apply

## Banks Says 'Working with Volunteers & Members' is What it's All About

Lorrie Banks, ABC's Office Coordinator, is not only the first face ABC staff and visitors see when stepping into the office, but she's also the friendly voice often heard by members, volunteers and clients. Since beginning with ABC in spring 2008, Lorrie has assisted with nearly all areas of ABC – something she says is the highlight of her day.

"I enjoy the interaction and contact that I have with the Board of Directors, certification officers from our member programs, V&E Committee members and U.S. and international operators. I view myself as a 'people' person and like being available to help them when needed," she said.

Prior to joining ABC's staff, Lorrie spent over 12 years working with volunteers in different capacities at a lo-

cal medical center. As her role continues to evolve into working with V&E committee members, Lorrie says she welcomes the opportunity. "Our V&E members are the wheels on the bus that keep ABC moving in a direction to improve environmental certification. In my small way I hope to be a part of recognizing their efforts and helping them whenever I can."



Beyond the office, Lorrie stays busy with many family activities. She has 4 children and 5 grandchildren, with number 6 on the way. She lives just outside of Boone, Iowa, with her husband Steve and is active in her church where she is a choir member and frequent vocal soloist for special services. Lorrie can be reached at [lbanks@abccert.org](mailto:lbanks@abccert.org).

## ABC HIGHLIGHTS

### Over 40 Participants Join ABC for First Webinar

Led by ABC and Applied Measurement Professionals (AMP), ABC's computer-based testing partner since 2005, over 40 members and guests joined ABC for a webinar discussing computer-based testing.

Topics included a CBT and AMP overview. Cheryl Bergener, who recently retired from the Washington Waterworks Operator Certification Program after 40 years, shared how her program had benefited from CBT.

### Technical Webinar Series Announced

In the coming months, ABC will be hosting several webinars aimed at providing up to date, relevant environmental certification information. Topics will include:

- > **April 12, 2011; 12:30 CT:** Examination Development
- > **May:** ABC Web-Based Testing
- > **June:** Strategic Initiatives
- > **July:** Continuing Education Review

### Board of Directors Meeting

ABC's Board of Directors met on Jan. 29, 2011, at the Embassy Suites Phoenix-Scottsdale. Meeting highlights are as follows:

**New Members** – Approval of the United South and Eastern Tribes (USET) and the Egyptian Regulatory Water Authority as regulatory program members; and GateWay Community College as Associate Members.

**Task Force** – Creation of a task force to explore professional designations for operators in the water environment field.

**Psychometric Enhancements** – Update on Testing Service activities and Validation & Examination Committee Meetings.

Members can access approved meeting minutes by logging in to the member area of [www.abccert.org](http://www.abccert.org).

### The Strength of One Drop

Provided to members in January, the 2010 ABC Annual Report entitled "The Strength of One Drop" celebrates the successes of ABC members and volunteers and offers a preview of fresh vision. Nearly four decades ago, ABC's founders sought to fill a void in the industry with the establishment of an organization which would bring certification programs to-

gether. The 2010 Report applauds these efforts, and provides a glimpse of 2011 initiatives. To download a copy, visit the ABC website.

### Stakeholder Meeting

Facilitated by President Jenny Chambers, attendees heard about ABC's continued focus on examination psychometrics from John Solvie, Immediate Past-President; Laurie Sharp, Certification Council Director; and Fae Mellichamp, Professional Testing, Inc. Attendees were able to ask questions about this important initiative, and what could be expected in the coming year.

This meeting also gave an overview of the Water Treatment, Distribution, Wastewater and Collection Validation & Examination Committee meetings that took place on Monday and Tuesday prior to the conference.

### ABC to Sponsor Top Ops

ABC will serve as a sponsor of the American Water Works Association (AWWA) Top Ops Competition to be held June 13-14, 2011 in Washington, D.C. Validation & Examination committees assist with the Top Ops question validation.

# 2011 24<sup>th</sup> ABC Annual Conference

## Making a Difference • Phoenix-Scottsdale, Arizona



(From top) Immediate Past-President, John Solvie pictured with David Flowers and Chuck Van Der Kolk who Solvie recognized along with 6 others for their outstanding dedication to ABC in 2010. (Right) 2010-2011 WEF Vice President Cordell Samuels delivers the wastewater keynote.



(Top) Conference attendees enjoying ABC's networking luncheon prior to the Awards Ceremony. (Left) Special guest speaker Mark Mayfield delivering a humorous presentation with an informative message.



(Right) Harrison "Chip" Mackey, Brent Herring, Ray Olson and Chris Wisniewski stop for a quick photo in between conference sessions. When not participating in conference sessions and activities, many attendees took advantage of the warm sunshine and scenic landscape surrounding the conference site.

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**Strategic Planning Committee Meeting** - April 29-30, 2011; Ankeny, IA

**Certification Committee Meeting** - June 10, 2011; Alexandria, VA

**Board of Directors Meeting** - June 11, 2011; Alexandria, VA

**AWWA ACE 11 Annual Conference & Exposition** - June 12-16, 2011; Washington, D.C.

**AWWA Top Ops (sponsored by ABC)** - June 13-14, 2011; Washington, D.C.

**Webinar: ABC Examination Development** - April 12, 2011; 12:30 CT

**Webinar: ABC Web-Based Testing Option** - May 2011

**Webinar: ABC Strategic Initiatives** - June 2011

**Webinar: Continuing Education Review** - July 2011

For the most current information, visit [ABC's Online Calendar >>](#)

(*Setting the Bar* continued from cover)

ing to retain tasks which did not meet decision criteria if a significant rationale could be provided for their importance on the examination.

The V&E committee members were also given the opportunity to remove any tasks which met criteria on the survey but were deemed untestable or inappropriate for the respective certification examination. Lastly, some related tasks were combined within duty areas in order to reach a more consistent level of specificity across all of the duty areas. This had the effect of creating blueprint weights which the committee members felt more appropriately matched job responsibilities for operators.

The committee members felt that this was necessary because the task lists over-represented some duty areas by virtue of having included all possible treatment processes or analysis, when in fact a given plant or operator would only perform one or two of those listed. For example, the First Aid, Fire Suppression, and Slips, Trips, and Falls tasks under Safety Procedures were combined to form a General Safety and Health task. Rationales for all decisions were documented in the survey data files.

In the coming months, ABC's Survey Validation Reports will be available for review.

(*Annual Conference* continued from page 2)

tion." LaFrance also emphasized the importance of certification and AWWA's partnership with ABC.

In addition, this year's conference did not go without laughs as special guest speaker Mark Mayfield discussed the change theory during: "The Glass Ain't Half Empty, It's Just Too Big!"

An ABC Stakeholder Meeting offered an open forum for attendees to hear about 2011 initiatives (to learn more, read *ABC Highlights* on page 4). Several attendees were recognized for their work in certification during the Awards Luncheon (see *Honoring* on page 2).

During the closing session, 2011 President-Elect Harrison "Chip" Mackey invited attendees to join ABC for the 25th Annual Conference and 40th Anniversary Celebration to be held at Embassy Suites Tampa, Florida, January 17-20, 2012.

**Visit ABC's member only page to download Annual Conference presentations.**

(*Certification* continued from page 3)

erator and how this in turn protects the public. Access to ABC exams and services can not only help make your program legally defensible but also meet your legislature's questions over your program's merit.

S. Hrudehy & E Hrudehy, 2004. *Safe Drinking Water*. IWA Publishing, London

D. O'Connor, 2002. *Report of the Walkerton Inquiry, Vol 2*. Queen's Printer for Ontario, Toronto.

V. Smith, 1995. *Complacency caused Milwaukee's crypto outbreak.* *Journal AWWA* 87(1): 8-9.