

Update

Newsletter for ISA Certified Control Systems Technicians® (CCST®)



Summer 2009

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CCST Profile of the Quarter: Aaron Brodhacker



Aaron Brodhacker, Certified Control Systems Technician® (CCST®) Level I, works for KCorp Technology Services, Inc. (KTS), a contractor for the Bureau of Reclamation. He provides a range of operation and maintenance support services for Reclamation's Yuma Desalting Plant (YDP) and associated facilities on his current contract basis.

The plant is located in Yuma, Arizona.

KCorp Technology Services, Inc. (KTS) provides facility maintenance services that are responsive to the needs of its customers. The company's goal is to maintain and operate each facility for which it is responsible as a world-class, superior workplace and to help its customers increase effectiveness and efficiency of operations.

Aaron is involved with a number of activities with his contract at the YDP. He troubleshoots and repairs actuators, flow meters, analyzers, communication systems, and various other control instruments. He designs control circuits and strategies and assists fellow technicians when needed.

"The Bureau of Reclamation views certification as a commitment to ensuring that it has trained, qualified, and professional technicians," Aaron comments. "My previous employer realized the value of the CCST program and the effort it takes one to achieve certification. It's not given away; you have to earn it," Aaron adds.

Although Aaron's contractor, KTS, does not require industry certification, the Bureau of Reclamation has supported it. "The first contractor I worked with at the YDP site was supportive of the CCST program, Aaron says. "That company allowed me the time to study for the CCST exam and

covered the expenses that I encountered in preparing," he adds.

Having been in the control systems industry for only four and a half years, Aaron was not yet qualified to take the CCST exam. He first had to take the CST Associate exam. By passing the CST Associate exam, he was able to satisfy the five year requirement for qualifying to take the CCST exam. "By pursuing my certification so aggressively, I have gone from an inexperienced helper in the electrical department, to being the lead instrumentation tech in a short time," Aaron says. "I believe that my certification accomplishments prove my ability to quickly learn new skills and help me to adapt to the rapid changes and the advancement of technology in my field," he adds. "And that should improve my chances to advance in my chosen career path."

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— Brodhacker

The CCST exams cover seven performance areas or domains: Calibration, Loop Checking, Troubleshooting, Startup, Maintenance/Repair, Project Organization, and Administration.

The CCST program offers three levels of certification, with varying education and experience requirements, and a technician may enter the program at any level. Level I requires a minimum of five years of education, training, and/or work experience. Level II requires seven years of education, training, and/or work experience with at least two years in

CCST Profile, continued on page 4

ISA Training Needs Assessment and Analysis Process for Control Systems Technicians

ISA offers the ISA training needs assessment to provide organizations with a tool to evaluate its control systems technicians' training and development needs.

The training needs assessment identifies a company's control systems technicians' strengths and weaknesses as well as areas where training could enhance job performance. It also identifies training needs for technicians who are preparing for CCST certification.

What's used to test training needs?

ISA recommends companies evaluate technician training needs with a quantitative and qualitative comprehensive needs assessment. This assessment contains multiple-choice questions designed to evaluate knowledge and skills covered by the CCST body of knowledge program.

Multiple-Choice Assessment:

- Broadly identifies training needs that cover key knowledge and skills of CCSTs
- Identifies training needs to meet minimal technician requirements
- Provides relative standing within the database of technician skills
- Guides the training needs of technicians assessed

The assessment is not designed to rate job performance, rank performance among peers, determine merit pay, or guarantee that an individual will pass a certification exam.

The Technician Self Assessment also includes a written self evaluation which is designed to measure:

- Working knowledge
- Reading and comprehension
- Self-assessment focused on current job responsibilities

Needs Assessment Analysis

ISA works with Subject Matter Experts (SMEs) to perform post assessment interviews in order to gain insight into needs assessment scores and to catalog recommended training needs with each participant. It ensures that each training plan will be tailored to each individual technician—a paramount step in the needs analysis.

During the post assessment interview, SMEs review the assessment results and explain how they relate to specific training needs. In order to best match training needs, SMEs inquire with each technician about his or her opinion of how the assessment scores reflect his or her skills and which area of training would be the best personal benefit. This interview process can take from 45-90 minutes.

The self-assessment portion is scored based upon the standard duties of the classification being assessed. Some technicians will self-assess their knowledge as far higher than the scores indicate, while others self-assess their knowledge quite low in comparison to their skill test results.

From the interview and the assessment scores, the SME determines a training plan for the technician and a final report is

prepared for company management. The final report includes an analysis of individual technician scores, description of ISA training recommendations, and training plans. Often, companies will meet with the SME to obtain a verbal summary of training recommendations.

SMEs are unbiased in the training assessment and recommendation process. Each customer has his or her own option to schedule recommended ISA training or a portion of training.

How to get started with an ISA Training Needs Assessment

Companies interested in scheduling a needs assessment can find out more information online at www.isa.org/needsassessment or contact one of the ISA Learning Consultants (list below).

Once a company requests a needs assessment, a date will be set for the written assessments to be given. This may be done several weeks prior to the interview process. The better informed technicians are about the needs assessment process and how it may help with expanding their skill level, the more likely they are to accept the assessment as beneficial. It's a joint effort between ISA and the company to inform participants of the benefits of the needs assessment.

The ISA Training Needs Assessment has been invaluable to many companies, allowing each to tailor training dollars to tangible results. The training plans have guided companies in meeting corporate and individual training goals. They have also helped ISA develop effective and efficient training for many companies with diverse training needs.

Contact an ISA Learning Consultant to schedule an ISA Training Needs Assessment today!

ISA Learning Consultants:

Matt Rothkopf: mrothkopf@isa.org

Joyce Holmes: jholmes@isa.org

Chris Johnson: cjohnson@isa.org

ISA Training Needs Assessment Process at-a-glance

- Customer requests training needs assessment
- SME briefed on customer needs
- Needs assessments given to technician and returned to ISA
- Scores calculated
- Post needs assessment interviews held with technicians and supervisor
- Interviews conducted to discuss results with technician and company
- Individual technician training plan developed
- Final report sent to customer

Exams Offered with Review Course

ISA's three-day instructor-led review course, TS00, and the CCST certification exam will be offered in Houston during ISA Fall Training Institute (an Automation Week event) 5-7 October 2009. If you take this course offering, ISA will waive your exam fee—saving you \$295. You'll have the added benefit of access to the ISA EXPO 2009 exhibition hall.

The exam will be given the day after the TS00 course on 8 October. You must register for the course and postmark or submit your CCST application by 27 August 2009. Information about the CCST Review Course (TS00) can be found online at www.isa.org/training/TS00.

Testing Window Deadline Approaching

The last electronic testing window for 2009 is 1 November–31 December. The deadline to postmark/submit an application is 15 September. Remind those you know that may be interested in CCST to prepare now. The online CCST application www.isa.org/ccst/apply is user friendly and can be completed in less than 30 minutes.

Had a Problem? Found a Solution?

What's been your latest challenge on the job? Tell other CCSTs how you were challenged with a problem and found the right solution. Contact Crystal Strickland, Marketing Coordinator, at cstrickland@isa.org for a chance at telling your story!

Welcome New CCSTs!

Congratulations to our newest group of Certified Control Systems Technicians!

Aaron Brodhacker
KCorp Technology Services

Adrian Antoo
XOMA Corp

Alexander Kaznica
Delaware Engineering & Design Corp

Alexander Kuchta
Morrow Meadows Corp

Brian Mizner
Bristol Myers Squibb

Charles Worster

Christopher Lovett
Miller Coors

Daledric Seastrunk
Valero

Daniel Mouradian
Centerline Electric

Daniel Poulin
Udelhoven Oilfield Systems Services

Danny Parrott
UT-Battelle

Darren Thorpe
Electrical Systems and Instrumentation

David Spicher
Dynalectric

David Tighe
IBEW Local #32

Dean Drawdy
MillerCoors

Dennis Self
Chevron

Donald Conger
Alcoa Inc

Donald Telle
Johnson Controls

Douglas Carey
Person Electric

Gary Bottomley
Degussa Stockhausen Inc

Gaylord Fisher
General Electric

Gerald McGeorge
BP Oil Toledo Refinery

Harold Bailey

Henry Sedoruk
Valero

Howard Kissick
City of Longview Texas

Jack Cecil
Chevron

James Vincent
BP

Jared Willette
Lincoln Paper & Tissue

Joe Bannister
M R Systems Inc

John Miller
Chevron Inc

John Rutledge
IBEW Local #32

Julio Mercado
PROMIGAS SA ESP

Kevin Norris
IBEW Local #32

Kevin Piland
MillerCoors

Kimberly Toscano
BP

Lance Kisamore
LANXESS Corp

Larry Renfroe
International Paper

Larry Scanniello
BASF Catalysts LLC

Lars Pettersson
IEC

Marcos Lopez
Chevron

Mark Reaume
BP

Marty Vinson
Miller Coors

Michael Groll
BP

Michael Myres
Chevron Exploration and Production

Morty Theriot
Honeywell International

Nathanael Simmon
Chevron

Omer Despres
Indianapolis Electric Co

Patrick Horan
Long Electric

Paul Bridgeman
Hexion Specialty Chemicals

Paul Noone
IBEW Local #481

Paul Sanders
Sycamore Engineering

Paul Seager
Dept of National Defense Canada

Peter Radakovich
Verso Paper Co LLC

Phillip Weyandt
BP Oil Toledo Refinery

Randall Rieck
Day and Zimmermann

Randolph Rease
Miller-Eads Electric

Richard Harris
Chevron North America

Richard Staskiewicz
Evergreen Solar

Robert Bryant
Plumbers and Pipefitters Local 776

Robert Lester
Flint Hills Resources

Roger Powers

Ross Hanson
Advanced Engrg & Environmental Services

Satnam Gill
ESI-Chevron

Scott Gauthreaux
Valero

Sean Murray
Aaron Associates of CT Inc

Shannon Emory
Community College of Rhode Island

Shannon Wise
Pro-Tech Engineering Inc

Stacy Cason
Associated Electric Coop Inc

Steven Ellis
Local 58

Steven Georgoff
BP Oil Toledo Refinery

Sunny Etukudo
Chevron

Thomas Richardson
Valero

Timothy Gerwin
BP Oil Toledo Refinery

Vince Splawn
Valero

instrumentation/measurement and control. Level III requires 13 years of education, training, and/or work experience with at least five years in instrumentation/measurement and control.

CCSTs must renew their certification every three years. This is accomplished by earning Professional Development Points (PDPs) by working, training, and continually gaining knowledge in the field.

Aaron took his CCST Level I exam at a testing site in Goodyear, Arizona. In preparation for the exam, he referenced texts, took practice exams, studied with fellow employees, and learned from friends who hold CCST Level I and III certifications. "Take it seriously and prepare ahead of time," Aaron recommends to anyone thinking of pursuing the CCST exam. "Look at some of the example questions online so you'll have an idea of what kind of questions are asked. If a person has a good understanding of the instrumentation field and a good understanding of the what, why, and how in performing his or her job, then the exam should not be too difficult," he adds.

Aaron graduated from Hillsboro High School in Oregon. He received his CCST certification in March 2009 and plans to renew it in 2012. He does plan to obtain higher certification levels, as he is able to meet the requirements for each.



Founded in 1945, the International Society of Automation (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts the largest conference and exhibition for automation professionals in North America. ISA is the founding sponsor of The Automation Federation (www.automationfederation.org).

Certification

ISA certification provides an objective, third-party assessment and confirmation of a person's skills, and gives them the opportunity to stand out from the crowd and be recognized. ISA currently offers two certification programs: Certified Automation Professional® (CAP®) and Certified Control Systems Technician® (CCST®).