

# CCST Training Offers



While Daniel Lohens has been an electrician for 21 years, his current job at Chicago's O'Hare Airport brings him into contact with building engineers and their instruments and measuring devices.

So Lohens jumped at the chance to take some training and become an ISA Certified Control Systems Technician® (CCST).

"With building engineers, it's like they speak a different language. Now (after studying for the exam), when they're talking about pressure and reverse-acting valves, I know what they mean," said Lohens. Plus, he's got the certification to prove he knows what they're talking

about. He has been CCST certified for 2<sup>1</sup>/<sub>2</sub> years.

Instrumentation is becoming a more prominent part of many electricians' jobs. IBEW members are often responsible for installing instruments and control devices, making sure the equipment interacts with the wiring systems safely and effectively.

"More and more companies are asking for electricians who have instrumentation

experience and can prove it," said Elizabeth Price, certification manager of ISA, the international society for measurement and control. "That's why we worked together with the IBEW, management, and other unions to develop this certification program."

In some instances, explains Price, companies say they need to prove competency as a requirement of meeting OSHA standards.

Since instrumentation is a minor portion of most electricians' apprenticeship training, ISA can offer IBEW locals help in getting their journeymen trained and ready to take the certification exam.

ISA also makes testing convenient for electricians by offering private exams at

# A Valuable New Skill

the union hall. Union members can coordinate with other members of their local and schedule a test site and date that fits their schedule, with no extra time off the job for travel. "There is no site fee for a private exam, and ISA will pay for the proctor," Price says.

Since its start in 1995, the CCST program has become popular among employers, supervisors, and union electricians and pipefitters. More than 5,800 have applied and slightly more than 3,500 are now certified.

"Employers are able to document the skill level of their employees through a third-party, internationally recognized organization," Price says. The certification is particularly helpful for companies fulfilling ISO 9000 and OSHA requirements.

To develop the certification, ISA performed a national job analysis survey with the Instrument Technicians Labor Management Cooperation Fund, the Instrument Contractor and Engineering Association (ICEA), the United Association of Plumbers & Pipefitters (UA) and the IBEW.

The team selected eight performance domains that needed to be covered on each exam. The eight domains are calibration, loop checking, troubleshooting, start-up, documentation, project organization and administration, maintenance/repair and using microprocessor-based instruments and controllers.

The Level I and Level III tests have 175 multiple-choice questions. The Level II exam contains eight simulated written problems that test the candidate's decision-making, troubleshooting, and professional judgment in practical situations. The exams are constantly reviewed to make sure they stay up-to-date with the changing technology in the field.

Level I candidates must have a total of five years of education, training and/or experience. Registered apprentice-

ships in instruments, measurement and control, electronics, electrical and/or mechanical programs count, as does an academic degree (up to four years) in a related field and related work experience.

Level II technicians must have a seven-year combination of education, training and work experience with two years coming specifically in instrumentation/measurement and control. Level III technicians must have a 13-year combination of work and training with five years of direct instrumentation/measurement and control.

All technicians must renew their certificate every three years. The process involves submitting documentation that a technician has completed 120 professional development (PD) points. Points come from work experience, additional education and activities that advance the profession such as attending training courses or local meetings in the instrumentation field or related technologies.

In the far western suburbs of Chicago, IBEW Local 461 has run two prep courses followed by private exams. Journeymen in the Aurora area needed more instrumentation skills to work on the large number of power generating plants being built in the area. "If we get a specialty call and you've got the qualifications, you go out ahead of someone else," explains training director Mike Foulkes.

Locals have a number of options to choose from to get their technicians ready for the CCST exam:

- Offer training at the union hall covering the eight performance domains of the CCST exam.
- Include instrumentation instruction in the apprentice courses. John Prendergast, assistant electrical coordinator with IBEW Local 134 in Chicago, does this. Level I certification requires five years of training or experience.

So if the course were offered midway through an apprenticeship, the students would have to wait until the end of their apprenticeship to take the test.

- Request an onsite offering of ISA's review course (TS00). This brings the instructor and course materials to you, but requires the technicians to be out of the field for the duration of the class. The downtime might be worth it if a major project is coming along that requires electricians with extensive instrumentation backgrounds.

A local ISA Section can locate an instructor in your area. The courses can be stretched out over several nights or weekends for the convenience of the union members. Foulkes of the Aurora local did this and found an instructor who helped several of his electricians prepare for the exam. Foulkes says, "I think the best way to do it is to have a combination of an ISA course and a journeyman electrician teaching it."

Electricians say the extra time spent in class is well worth it. "It has given the people I've done jobs for a lot more confidence in what I can do," said Joe Mangano, Jr., a member of Chicago Local 134 and CCST.

Both Mangano and Lohens have encouraged other electricians to sign up and take CCST classes. The reception has been mixed. With the economy as hot as it is right now, a lot of electricians don't feel they need any specialty education.

"But when times tighten up, the more education you have, the better your chance to still be working," Mangano says.

*For more information about the ISA CCST program or to establish a local test offering, contact ISA's contracted testing vendor at (919) 572-6880 or e-mail [info@castests.com](mailto:info@castests.com).* ■