



# CERTIFIED SUCCESS

While specialty certifications are voluntary credentials,  
they can be important to a PE's career development.

BY MATTHEW MCLAUGHLIN

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Since the first was established in 1955, specialty certifications have grown in both number and reputation, thereby affording many professional engineers a unique career development opportunity.

While certifications are voluntary and typically issued by nonprofit organizations, unlike the PE and other licenses used by government to protect the public from incompetence, they provide valuable independent testimony to an individual’s competency in a specific area of engineering. That testimony, in turn, provides increased credibility and opportunities for career advancement.

The current president of the American Academy of Environmental Engineers and Scientists, the organization responsible for establishing the first specialty certification, likens specialty certifications to other steps forward in an engineer’s growth and development. “You’re going to get your degree and think you’re done, but you’re not done because you can get a master’s degree,” Pasquale Canzano, P.E., tells undergraduate students. “When you get your master’s you’re going to think you’re done, but, no, you’re not done because you can become a licensed engineer.”



And so it goes, continuing beyond the PE license as well, says the AAEEES president. “You can never stop learning [and] you can never stop seeking to go to that next level that can set you apart from everyone else.”

Canzano isn't the only one who believes certifications are akin to degrees and the PE license, however. It's something many others familiar with specialty certifications agree with, including NSPE member William Anderson, P.E.

“Whether it is a college degree, or a license issued by the state, or a certification, these three all provide the same benefits,” says the executive director of the Council of Engineering and Scientific Specialty Boards, an independent organization that provides accreditation for specialty certifications. “Engineers with licenses make more than those who do not have licenses, and those licensed engineers who are specialty certified make a bit more than those who just have a license.”

**The First**

Specialty certifications got their start with the board certified environmental engineer (BCEE) credential, originally identified as diplomates. The credential was started by the American Academy of Environmental Engineers and Scientists, originally the American Academy of Sanitary Engineers.

When the academy pioneered certification in the 1950s, the Environmental Protection Agency had yet to be formed and environmental engineers (still known as sanitary engineers) worked closely with medical professionals in the U.S. Public Health Service, says Anderson.

That close working relationship eventually led top engineers in the Public Health Service to organize the first specialty certification in the engineering profession.

“In the personnel workings of the U.S. Public Health Service, the physicians arranged for a merit pay increase whenever a physician obtained specialty certification, so if you were a physician working for the Public Health Service and you became board certified as a surgeon, you qualified for a pay raise,” Anderson explains. As a result, engineers in the Public Health Service set out to create a specialty certification for themselves, and, after three years of work, they managed to do so in October 1955.

From there, the certification's reputation spread rapidly throughout the country thanks to the fact that state health departments were modeled after the Public Health Service, each with their own

engineering divisions. Additionally, many engineers who worked for the Public Health Service and state health departments later went to work in the private sector, says Anderson, either starting their own firms or working for a consulting engineer.

The success of the certification inspired other specialty certifications, from Diplomate, Forensic Engineer (D.FE) in 1982 to Diplomate, Geotechnical Engineer (D.GE) in 2008.

**Certification and Career**

While BCEE certification may be older and more well-known, all specialty certifications can play a valuable role in career development by providing the same benefits— independent testimony to an individual's competency in a specific area of engineering, increased credibility, and increased opportunities for advancement.

Though the Diplomate, Water Resources Engineer (D.WRE) certification is less than a decade old, the American Academy of Water Resources Engineers says it is already having an impact on career development.

“What we're starting to see is people are looking for the advanced certification,” says Robert Traver, P.E., president of the American Academy of Water Resources Engineers. Being a professor at Villanova University, Traver admits he hasn't seen any contracts himself but says he has been told by other D.WREs of contracts from state agencies requiring advanced certification.

Additionally, larger engineering firms have begun pushing for water resources engineers to obtain their specialty certification, even paying for it, and those already certified have been maintaining their D.WRE through a tough economy. Both are a clear sign the certification holds value for firms and individual engineers.

“As a professional engineer, you're supposed to be improving and moving yourself forward,” Traver says. “If you have a diplomate who has proven to a board his experience versus looking at somebody who has not, we expect that to make a difference in a selection process.”

The D.GE certification is even more of a newcomer than the D.WRE, but the Academy of Geo-Professionals, too, has heard of agencies looking for geotechnical engineers with specialty certification.

“There are a few agencies that are looking at the qualifications of firms or engineers submitting their statement of qualifications or proposals and beginning to recognize the [D.GE],” says Arlan Rippe, P.E., founding president of the Academy of Geo-Professionals. “There are beginning to be more and more examples of that.”

Another sign the D.GE is gaining in reputation is recognition by professional liability insurance companies, some of which have begun offering a discount to



engineers with the specialty certification. “That has always been, at least in my mind, a goal,” Rippe points out. “That’s an immediate and tangible benefit.”

### Looking Forward

If the 58-year-old BCEE certification is an indicator of what the future holds for much younger specialty certifications, then the American Academy of Water Resources Engineers and Academy of Geo-Professionals can expect even bigger and better things from the D.WRE and D.GE in years to come. While they are just starting to see demand for specialty certified engineers, demand for BCEEs is common.

American Academy of Environmental Engineers and Scientists President Pasquale Canzano, P.E., has obvious insight into that larger community, but his own personal experience as a BCEE also speaks to the pivotal role the specialty certification can play in career development.

When the now-CEO of the Delaware Solid Waste Authority became COO of the authority in 1991, it was immediately clear that specialty certification would play an important role in his career development. “My predecessor...had his own personal philosophy about professional development and how you always had to continue to grow and seek recognition and certification beyond the professional engineer’s license,” Canzano says. “Nothing’s a given in this world, but I certainly was interested in succeeding my predecessor as the CEO, and I recognized that I needed to demonstrate to our board of directors that I’m going to offer the same caliber of expertise and ability that he did.”

Canzano isn’t just an example of someone who made himself more valuable through certification, however, he is also now an example of someone in a decision-making role who wants board certified environmental engineers. He’s not the only one either.

As CEO of an internationally recognized leader in solid waste management and president of the academy, Canzano sees plenty of demand for certified environmental engineers from public agencies. “More public agencies are saying, ‘By the way, in addition to professional engineers, how many board certified environmental engineers and scientists do you have within your firm, and are any of them going to be working on our project?’” he says. “That’s what’s happening out there, and it’s happening more and more.”

Another certification that has been around for some time is the National Academy of Forensic Engineers’ Diplomate Forensic Engineer (DFE) certification, established in 1982. Whether it’s because of how long the certification has been around or their unique work in courtrooms, it is evident DFEs benefit greatly from the

independent testimony to their competency and increased credibility certification provides.

Added credibility is invaluable to DFEs, according to President of the National Academy of Forensic Engineers Paul Stephens, P.E. His education, his license, and his DFE certification are all important credentials to assure the judge of his expertise when an opposing attorney questions his credibility as an expert witness, which is a regular part of every proceeding.

“[Lawyers] basically question a witness on his credentials and it’s during that phase that it’s helpful,” says Stephens, an NSPE member. “For example, in a sidewalk default case, you might have an attorney on the other side say, ‘Mr. Stephens you’ve never designed a sidewalk, isn’t that true?’ or ‘you’ve never constructed one, isn’t that true?’”

With what’s being seen by those with newer certifications and the more obvious value of those certifications that have been around longer, specialty certification looks to be a smart career move for any PE. Not being certified doesn’t disqualify anyone from practicing, but what wisdom is there in not seizing an opportunity to enhance one’s credibility, as well as their chances for new contracts, promotions, and salary increases? The answer is none, according to Canzano.

“If anybody in our profession thinks, ‘Well, I’ve got this level of education and I’ve even got a PE license, now I’m set,’ I think they’re setting themselves up to be sort of left in the dust,” he says. “If you think you can rest on your laurels, you better rethink that because there’s a lot of competition out there.”

Specialty certifications, according to Canzano, are a valuable way for every PE to show their employers or their clients they are better than the competition. **PE**

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