

Yes, Students, There Is a Nuclear PE Exam

The reasons for the declining numbers of test-takers include students who don't know about the exam.

Supporters of the nuclear PE exam are working hard to convince students and engineers that it's an important step in professional practice. The number of examinees has fluctuated over the years, following trends in engineering education and the energy industry. The current outlook: concerning.

The National Council of Examiners for Engineering and Surveying requires all of its pencil-and-paper exams to meet a minimum of 50 first-time test takers over two cycles. (The nuclear PE exam, with a smaller examinee population, is given just once a year.) This is in order to ensure a "statistically valid, reliable exam," explains Tim Miller, P.E., NCEES director of exam services and NSPE member.



BENNION

The American Nuclear Society sponsors the exam. John Bennion, P.E., is the previous and upcoming chair of ANS's Professional Engineering Examination Committee as well as the current vice chair. He explains the history that has contributed to declining numbers over the years: accidents at Three Mile Island and Chernobyl, subsequent near-shutdown in new plant construction in the US, nuclear engineering programs closing or merging with other departments, and reductions in infrastructure and research funding from the federal government.

A reprieve and increased funding came as aging nuclear engineers began

retiring. Still, the PE exam faces a large, ongoing challenge: engineering licensure is largely not required in the nuclear industry. Moreover, nuclear engineering faculty members are usually not licensed, nor do they often promote licensure to students.

But Bennion believes it is "essential" for nuclear engineers to get their PE. "I can't think of another industry that has the potential to affect public health and safety as [much as] nuclear," he says.

In 2005, NCEES placed the nuclear exam on probation for its low examinee numbers. The ANS committee was required to submit a plan of how to increase the number of test-takers, and the council continued to monitor the issue.

In the past, Miller explains, exams have been discontinued if sponsoring organizations don't increase the numbers. The ceramics, manufacturing, and aeronautical/aerospace exams have all met this fate. The industrial exemption played a role in those cases, according to Miller.



STEINMAN

Rebecca Steinman, P.E., is the current chair of ANS's Professional Engineering Examination Committee. She explains that the group has mobilized to increase numbers—for instance, sending representatives to the ANS student conference and encouraging faculty to both consider licensure for themselves and discuss it with students. "At some universities, even

if they're ABET-accredited, there's not a single professional licensed at the university and they don't even discuss it in classes as an option," says Steinman.

"Every year [at the ANS student conference], it astounds me the number of students who come up to one of the members of the committee and say they had no idea that there was a nuclear PE [exam]," she adds.

ANS has also included info about the exam and deadlines in its monthly e-mail newsletter and publicized it in industrial trade magazines. Each year, the society conducts a PE exam prep workshop.

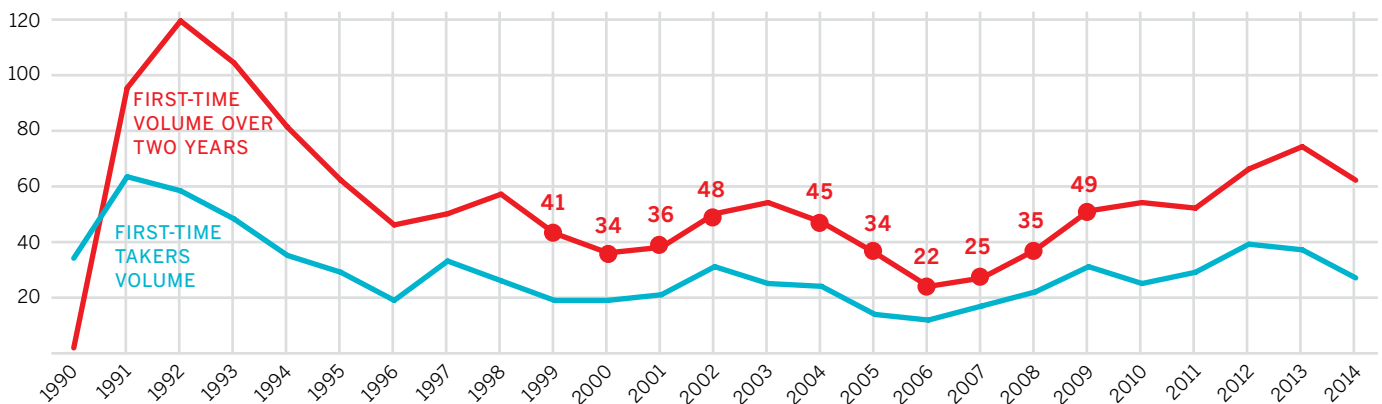
Although the exam came off probation in 2012, "We never managed to get so far past the probation stage that we think we can lighten up on our efforts," says Steinman.

The Fukushima disaster and natural gas trends also dealt severe blows to plans for new nuclear construction and to the number of examinees, she says. "If something doesn't change in the industry, I think next year will be a big struggle for us."

But Miller says the NCEES board of directors doesn't want to eliminate exams if they can help it. "We are willing to give a technical society every opportunity to improve exam volume," he says.

What can PEs do to help? Talk up smaller disciplines' exams, Steinman says. "And if you believe nuclear power is a viable source of power for the future, support those types of technical activities. Public support for our industry drives a lot of what happens in [it]."

NUCLEAR PE EXAMINEES



SOURCE: NCEES