



NUCLEAR WORKFORCE

Linn State graduates find employment in nuclear industry

BRUCE MEFFERT, nuclear technology instructor and chair of the Nuclear Department at Linn State Technical College, likes to point out that students in the school's nuclear programs are almost guaranteed to land full-time employment once they graduate. Of the 17 graduates from Linn State's two-year radiation protection program in 2009, 16 found jobs in the nuclear industry. (The one who didn't had decided not to pursue a job in the industry.)



Meffert

"So, basically, it's 100 percent employment, even in these tough economic times," he said.

Meffert cited a national survey that tracked the employment success of spring 2009 college graduates and found that only 20 percent of them had jobs lined up at the time of graduation.

That striking contrast is a reason that Linn State's nuclear technology program has grown in the three years since *Nuclear News* first talked with Meffert (May 2006, p. 54). The program has expanded from focusing on radiation protection to including associate degree programs in nuclear plant instrumentation and controls and reactor operations.

Meffert noted that nuclear utilities AmerenUE and Exelon Generation provided technical assistance in developing the new programs. The utilities, which both have operating nuclear plants within a day's drive of the college, "helped us write objectives and curriculum," he said.

The I&C program currently has 15 first-year students and seven students in their second year, and the operations program has 25 students in their first year and 10 in their second. Both programs started in the fall of 2008 and will graduate their first classes in the spring of 2010.

Linn State's main campus is in Linn,

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Josh Schroeder, a student in Linn State's reactor operations program, dismantles a diaphragm valve. (Photo: Josh Schroeder/Linn State Technical College).

Mo., and the Advanced Technology Center (ATC)—where the nuclear programs are conducted—is located at a satellite campus in Mexico, Mo.

The ATC is geographically situated in an area rich with opportunities in the nuclear industry, according to Meffert. Prospective employers are relatively nearby: the University of Missouri Research Reactor, which Meffert called "the largest research reactor in all of North America," and AmerenUE's Callaway nuclear power plant in Missouri; Exelon Generation's six nuclear plants in neighboring Illinois; the FPL Group's Duane Arnold nuclear plant in Iowa; and other nuclear plants in Minneso-

ta, Nebraska, Kansas, and Arkansas. Meffert said that he has "great relationships" with plant personnel at all of these places.

Linn State's radiation protection program, which started in the fall of 2004, graduated its first class in the spring of 2006. "I have 20 students in each year-group," Meffert said, "and since it's a two-year program, I have 40 RPs here all the time."

All of the classes in Linn State's nuclear program require students to physically attend classrooms and laboratories, bucking the trend toward distance learning for higher education. Because the nuclear industry has sent a message that a younger work-

force is desired, Meffert prefers to test his students by making them accountable for showing up in class.

“My mission is to take the 18- to 25-year-old group and train them,” he said. “The academics are not the problem. The problem is, can you come to work on time? We start our classes at 7:30 a.m. If you are one second late, you are late.”

Meffert said that he has seen first-year students drop out of the program because they couldn't get out of bed in the morning. “Anyone in the nuclear industry will tell you that if you can't get to the job by 7:30 a.m., how are you going to get there at 6:30 or 5:00 or whenever they ask you to be there?”

The students also have to fit into the nuclear culture. “We watch for personal integrity,” he said. “We look at overall maturity and how the students think. I want to see their faces every day. I want to know their names. I want to run them through the procedures because the nuclear industry is very high on procedures. We bring these young people in and run them through the same daily tasks all of the time. That would be very hard to do online.”

To be accepted into Linn State's program, students have to have ACT scores of at least 22 in mathematics, 18 in English, and 18 in writing. For the three programs—radiation protection, I&C, and operations—up to 80 students are accepted each year. Thirty percent of the students come from out of state.

Meffert said he frequently goes on recruiting trips to high schools within driving distance of Linn State. “I'm an old high-school science teacher, so I mainly target science classes and advanced math classes,” he said. “I'm looking for students who are into chemistry and physics. They are likely to be bound for four-year colleges, but I like to steal some for our two-year program.”

When Meffert visits a high school, he arranges for a representative from industry to accompany him. “I never go into a high school alone anymore,” he said. “The salaries in the nuclear industry and the things that I talk about in the classroom—there were times when I was there by myself and the students wouldn't believe what I was telling them.” When the students hear the words from the mouths of Exelon and AmerenUE personnel, however, they are eager to sign up for their chance to work in the industry.

When Meffert recruits at a high school near a nuclear plant, the students are already halfway convinced. “The students there might know a neighbor who owns a boat or a nice house,” he said. “They can see that the people who work in these plants make good salaries. They are much more likely to believe my stories.”

Despite his best efforts, the most effective recruiter is someone who already works in the nuclear industry. “Almost 70 percent

of the students in Linn State's nuclear programs last year were recruited by people from the nuclear industry,” he said. “Yes, I recruited, but they named an uncle, an aunt, a father, a brother—someone who has worked in the industry got them interested in our program. We need the workforce out there to be recruiting. They're really more effective than we are.”

In the past year, more than 125 applications were received for Linn State's nuclear programs, but less than half of the students met the qualifications for acceptance. “It's usually a math deficiency that keeps them out,” Meffert said. He noted that women who apply seem to trend toward the radiation protection program, which currently is about 25 percent female. Each of the other two programs has a female enrollment closer to 5 percent.

Meffert said that he wants to expand Linn State's operations program. “If you look at industry needs, there are always five to six times more operators needed than the other disciplines individually,” he said.—*Rick Michal*