



Sloan Career Cornerstone Center

Profiles of Nuclear Engineers



Douglas Osborn

**Research Scientist and Risk Analyst
Sandia National Laboratories**

Albuquerque, NM

Education:

- ▶ B.S. Chemical Engineering, The Ohio State University
- ▶ M.S. Nuclear Engineering, The Ohio State University

Job Description:

Doug is a research scientist and risk analyst for the safe and secure transport and packaging of nuclear materials.

Comments:

I feel that nuclear power can provide a complementary niche within the energy demands of the United States. Being a nuclear engineer allows me the ability to promote a safe, secure, and clean energy supply.

Advice to Students:

I highly suggest that students earn graduate level degrees, and pay special attention to their communication skills. Your writing and speaking abilities will become very important once you enter the workforce. Also try to intern or co-op with companies that deal with nuclear issues.

▶ INTERVIEW SEGMENTS

- ▶ **Q:** When did you know you wanted to become a Nuclear Engineer?
- ▶ **Osborn:** Prior to entering college, I spent 6-years in the US Navy, so being a nontraditional student offered me a unique perspective. While attending college, I also worked 20-30 hours a week at a research facility. With a full course load and a busy work schedule, I learned to value my time off. I was able develop close friendships with my classmates in chemical and nuclear engineering as well as those outside my profession.

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Source: American Nuclear Society

▶ Q: Did you co-op while you were an undergrad?

▶ Osborn: I worked 20-30 hours a week as an undergrad for a university research facility. During my years as a graduate student I worked 20-30 hours a week at Battelle Memorial Institute.

▶ Q: How did you get your first job?

▶ Osborn: A position in Sandia National Laboratories opened for a risk analyst for the transport and packing of nuclear materials, and my prior work experience at Battelle Memorial Institute was exactly what they were looking for in a new hire. The job meets my skills and allows me the ability to expand my knowledge in nuclear engineering and affords me the ability to become an industry expert.

▶ Q: What's the most rewarding thing about being a Nuclear Engineer?

▶ Osborn: I feel that nuclear power can provide a complementary niche within the energy demands of the United States. Being a nuclear engineer allows me the ability to promote a safe, secure, and clean energy supply.

▶ Q: Do you spend a fair amount of time traveling?

▶ Osborn: It appears that it comes in cycles. When I first started working, I didn't travel much. However, over the past 6 months I've traveled one to two times a month. While on travel, I spend 2-5 days away from home. My travels don't always take me to exotic places, but it does allow me to meet others within the nuclear industry.

▶ Q: Do you have a mentor? Or did you in your college years?

▶ Osborn: I currently have Dr. Ruth Weiner as a mentor. She has provided me with invaluable knowledge and advice. Her experiences have provided me an insight into past, current, and future conditions of the nuclear industry.

▶ Q: Do you find yourself working more in a team situation, or more alone?

▶ Osborn: I'd say my work is split about 50-50 when it comes to working alone or with a team.

▶ Q: Do you find you are able to balance work with social/family life while working in your current job?

▶ Osborn: I work to live; I don't live to work. I have the ability to enjoy most of my weekends, but there are times when deadlines and travel will interfere with your time off and this is expected when you live the life of a professional.

▶ Q: If you had to do it all over again, would you still become a Nuclear Engineer?

▶ Osborn: I am very happy with my current position, and my experiences.

▶ Q: Did you think that school prepared you for the way the work gets done in the real world?

▶ Osborn: College and my naval experience did prepare me for work in the real world. My technical and engineering knowledge were well developed, but my writing abilities were somewhat lacking.

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▶ Q: Where do you see jobs for Nuclear Engineers in the future? What should students be doing to prepare themselves to take on those roles?

▶ Osborn: When Yucca Mountain opens and electric companies start buying new generation nuclear power plants, my profession will start going by leaps and bounds. Until then and with the majority of nuclear engineers nearing retirement age, there will be some growth throughout the industry. Students should not be just satisfied with just a Bachelors degree. Earning your Masters or PhD will open more career paths within the nuclear engineering profession.

▶ Q: What other advice do you have for students?

▶ Osborn: I highly suggest that students earn graduate level degrees, and pay special attention to their communication skills. Your writing and speaking abilities will become very important once you enter the workforce. Also try to intern or co-op with companies that deal with nuclear issues. The co-ops and internships will provide you with vital experience that may ultimately separate you from others when applying for your first position. Don't worry about starting your career before 25; spend a few extra years preparing yourself and maturing so that you can be a true and respected professional when you enter the workforce.

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