



Sloan Career Cornerstone Center

Profiles of Nuclear Engineers



Joseph Anthony Green

Chief Mechanical Engineer

**Shaw Stone & Webster
Stoughton, MA**

Education:

- ▶ BScE 1987 – Clarkson University
- ▶ MS Nuclear 1991 – Univ. Maryland
- ▶ PhD Nuclear 1994 – Univ. Maryland

Job Description:

Supervise over 300 engineers and designers in 12 offices worldwide with responsibility for project execution, hiring, administration, standards and procedures, and computer tools for process, fossil and nuclear projects.

Comments:

There are a myriad of jobs that are out there and will be needed. Analytical jobs, fabrication jobs, construction related jobs, CAE jobs, etc. Students should be learning the basics (heat transfer, fluids, materials, thermo etc.) and then be willing to jump into new jobs and learn the details.

Advice to Students:

Take the EIT exam before you leave college. Be sure to get your PE license after 4-5 years of work. Do co-ops while in college. Pursue an advanced degree (MS) either while working or on a break for work. Be open for challenges....

▶ INTERVIEW SEGMENTS

- ▶ **Q:** When did you know you wanted to become a Nuclear Engineer?
- ▶ **Green:** In 1987, when I joined General Electric's Knolls Atomic Power Laboratory to train US Navy staff on nuclear submarine prototype.

- ▶ **Q:** What was your college experience like?
- ▶ **Green:** Phenomenal. Learned a great deal and had exceptional fun. Did co-op jobs during undergrad and loved my research during grad school.

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Prepared for the Sloan Career Cornerstone Center (www.careercornerstone.org)

Source: American Nuclear Society

- ▶ Q: Did you co-op while you were an undergrad?
- ▶ Green: Yes, summer with Babcock & Wilcox on a CFB in Maine and a fall semester with GATX Fuller Company working on cement plant design. Both were great.

- ▶ Q: How did you get your first job?
- ▶ Green: I interviewed with GE Knolls Atomic during my senior year.

- ▶ Q: What's the most rewarding thing about being a Nuclear Engineer?
- ▶ Green: Knowing that we are in one way or another providing energy to society that doesn't emit GHG.

- ▶ Q: Do you spend a fair amount of time traveling?
- ▶ Green: At least 25% - sometimes 50% of my time. Domestic and International.

- ▶ Q: Do you have a mentor? Or did you in your college years?
- ▶ Green: I have one now and had one when I started with Stone & Webster. Didn't really have one during college – but did as soon as I got into work.

- ▶ Q: Do you find yourself working more in a team situation, or more alone?
- ▶ Green: Both – fairly equally.

- ▶ Q: Do you find you are able to balance work with social/family life while working in your current job?
- ▶ Green: Yes to a fair extent. Sometimes work takes over....

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

- ▶ Q: Did you think that school prepared you for the way the work gets done in the real world?
- ▶ Green: Not 100% but it provides you the basics that are needed for later on.

- ▶ 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?
- ▶ Green: Nuclear power plants will be built again here in the States. They are currently being built internationally. There are a myriad of jobs that are out there and will be needed. Analytical jobs, fabrication jobs, construction related jobs, CAE jobs, etc. Students should be learning the basics (heat transfer, fluids, materials, thermo etc.) and then be willing to jump into new jobs and learn the details.

- ▶ Q: What other advice do you have for students?
- ▶ Green: Take the EIT exam before you leave college. Be sure to get your PE license after 4-5 years of work. Do co-ops while in college. Pursue an advanced degree (MS) either while working or on a break for work. Be open for challenges....

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