



042 PANEL: YOUNG PROFESSIONALS IN NUCLEAR SCIENCE AND ENGINEERING, AN INTERNATIONAL PERSPECTIVE

Waste Management Symposia

Tuesday, March 7, 2017

Presented by Christine Wipfli, Florida International University (FIU)

MY BACKGROUND

- Cardinal Stritch University – Milwaukee, WI
 - BA Communication Arts
- Florida International University (FIU) – Miami, FL
 - BS Environmental Engineering BS, MS Engineering Management
- Department of Energy Fellow – Applied Research Center at FIU
- Intern at International Atomic Energy Agency (IAEA) HQ – Vienna, Austria
 - Division of the Nuclear Fuel Cycle and Waste Technology Section: Decommissioning and Environmental Remediation Unit



INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

- International organization working in coordination with the United Nations
- Center for nuclear cooperation worldwide - 168 member states
- Promote the safe, secure, and peaceful use of nuclear technologies, Monitor the management of nuclear technologies
- My Internship:
 - Progress the implementation of D&ER programs:
 - Technical guidance documents
 - Hosting of events: trainings, technical meetings, workshops, and consultancy meetings
 - Online Inventory of Environmental Remediation Sites
- Career experience survey



CAREER EXPERIENCE SURVEY

- Interviewed ten IAEA technical experts:
 - Nuclear engineering/radioactive waste management background
 - International, multi-discipline, various levels of seniority
- Information gathered:
 - Career experiences
 - Success contributions
 - Rewarding/challenging aspects
 - Insight and advice



1) WHAT ATTRACTED YOU TO THE NUCLEAR/RADIOACTIVE WASTE MGMT INDUSTRY?

- Interest in physics, chemistry, and nuclear engineering
- Helping the environment and making a difference
- Solving critical problems
- Challenging, interesting, and rewarding work
- New frontiers to be explored
- Growing industry, vast opportunities available and potential growth for career

2) WHAT PAST EXPERIENCES PREPARED YOU FOR A POSITION WITH THE IAEA?

- Educational background/research experience
- Radiation safety and licensing, radioactive source manufacturing
- Experience working with the public and stakeholders
- Experience working with the Nuclear Fuel Cycle (i.e.: mining, fuel, nuclear power plants, spent fuel management, waste processing, research reactors, and waste storage and disposal)
- International experience
- Management positions
- Nuclear crisis expertise, e.g., Fukushima

3) WHAT IS THE MOST DIFFICULT ASPECT OF YOUR CURRENT POSITION?

- Maintaining a neutral/diplomatic role
- Bureaucracy slows processes and progress
- Nuclear/rad waste mgmt. industries are conservative by nature
- Being able to appropriately satisfy the needs of the MS with the resources available
- Public perception (anti-nuclear sentiments), promoting an understanding of nuclear power and positive applications of nuclear technologies
- Understanding the influences that politics, foreign policy, international/cultural affairs have on the nuclear and rad waste mgmt. industries

4) WHAT CHALLENGES DID YOU OVERCOME THROUGHOUT YOUR CAREER?

- Demanding pace of work and high expectations
- Sacrificing time with family
- Knowledge barriers (steep learning curve)
- Gender biases in a male dominated industry
- Gaining support from management for new opportunities
- Having field experience instead of academic accreditations, compared with colleagues.

5) WHAT IS THE MOST REWARDING ASPECT OF YOUR POSITION?

- Getting opportunities to make a significant/positive global impact
- Doing work that directly benefits the MS and enables them to become independent in managing their programs
- Delivering concrete results
- Learning from highly qualified experts everyday
- Working in a multicultural environment
- Fostering knowledge transfer
- Working at an internationally recognized and respected organization

6) HOW IMPORTANT WAS MENTORING THROUGHOUT YOUR CAREER? (RECEIVING)

- Absolutely! Provided valuable messages: be positive, proactive, path-breaking, painstaking, progressive, professional, passionate, patient, punctual, and polite.
- Very important. University professors helped guide and develop my career
- Informal mentoring played an important role in building knowledge and gaining insight and philosophies
- None was received although I am sure I would have benefitted from it
- You should always be open to learn from anyone. Learning from people you meet and work with everyday can show you new things like how to solve issues, how to develop soft skills, how to manage difficult situations etc.

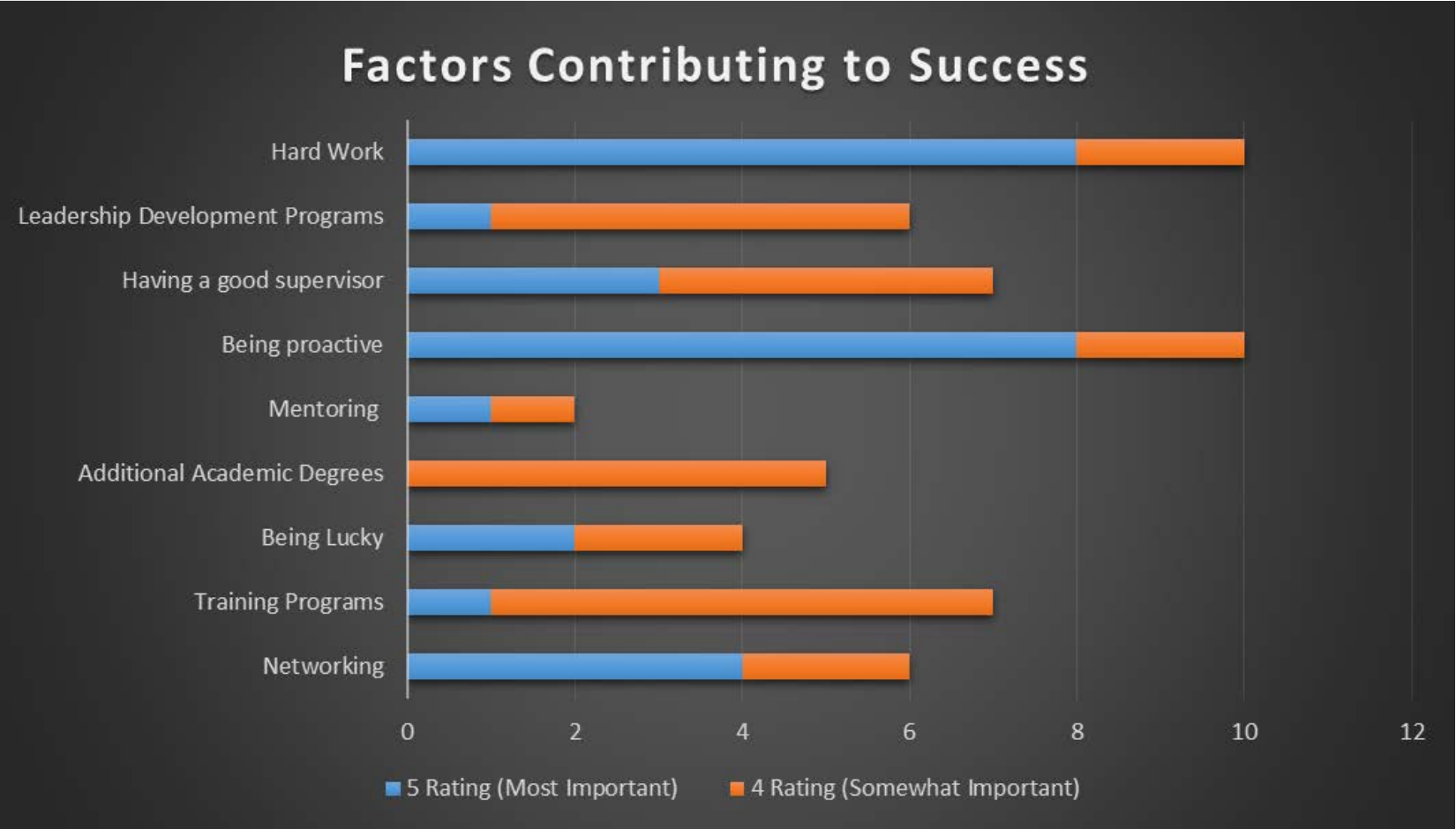
7) WHAT ADVICE WOULD YOU GIVE TO THE YOUNG GENERATION ENTERING THE NUCLEAR/RAD WASTE MGMT INDUSTRY?

- Build a solid academic background and then look for diversified opportunities for field experience (overcoming real-world problems)
- Read, study and learn as much as possible, you never know when it will help you (get a new project/job/opportunity)
- Ask questions, think critically
- Be proactive, be professional, keep a learning attitude and a concrete delivery mindset. (Keeping end result in mind, with tangible outcomes)
- Perseverance: be patient in pursuing your dreams, hard work over time = success

7) WHAT ADVICE WOULD YOU GIVE TO THE YOUNG GENERATION ENTERING THE NUCLEAR/RAD WASTE MGMT INDUSTRY? (CONTINUED)

- Don't let fear of failure prevent you from taking on new challenges, it's the best way to grow.
- Take advantage of the experience and knowledge of more senior colleagues. Anyone can be a wonderful source of new information.
- Be an advocate of the industry
- Continuously work on improving yourself
- Be assertive: polite and professional, but stand your ground where it matters
- Don't label yourself as a victim, see yourself as an equal
- Learn to be a good listener. Gain a diversity of opinions

8) WHAT WERE THE MOST IMPORTANT FACTORS IN YOUR LIFE TOWARDS ACHIEVING A SUCCESSFUL CAREER?



Top 3 Answers

- 1) Hard Work and Being Proactive
- 2) Networking
- 3) Having a good Supervisor

KEY TAKE-AWAYS

- Nuclear and rad waste mgmt. offers challenging/rewarding professions, potential to move ahead quickly in your career
- Have a broad-based knowledge of the industry, with specialized knowledge in a particular field.
- Technical expert role: management, field and research experience are highly regarded, along with experience in the NFC and communication skills
- Be a continuous learner, think critically, stay curious
- Learn to network (with the mindset of learning not gaining)
- Work hard, be proactive and perseverant
- Look for leadership programs and trainings, continuously improve yourself
- Learn from your colleagues. Choose a job with a supervisor who will be a good mentor.



THANK YOU!

QUESTIONS/COMMENTS/FEEDBACK:
SEND TO CWIPFLI@FIU.EDU