



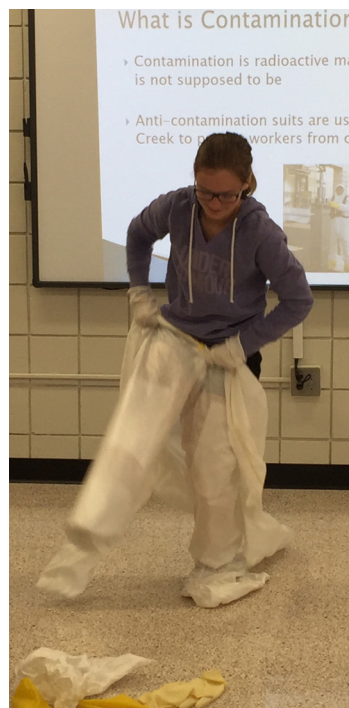
# The WINning Edge

An Update on U.S. WIN Activities

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## Wolf Creek Chapter Promotes Nuclear Science at Local School

Submitted by: **Selena King**, Performance Improvement, Wolf Creek, Region IV



During Nuclear Science Week, members of Wolf Creek Nuclear Operating Corporation's Chapter of U.S. Women in Nuclear presented five educational sessions to eighth grade students at Burlington Middle School to promote nuclear science.

Members Angela Stevenson, Linda Cole, and Monique Hart provided an overview of how a nuclear power plant works, focusing on nuclear fission and what happens in the reactor. They also incorporated an activity that explained the half-life concept using candy M&Ms and a dress-out activity as part of their discussion of contamination and radiation protection.

Wolf Creek's chapter was formed in 2014 and currently has 50 active members. Its members are focused on supporting professional development for women at the station, providing networking opportunities for members through chapter events, and promoting nuclear energy in general and Wolf Creek specifically in the community, particularly among young women. ✨

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# 2017 Nuclear Science Week at Nine Mile Point Nuclear Station

Submitted by: **Alyxandria Wszolek**, Qualified Nuclear Engineer, Exelon Generation Nine Mile Point Nuclear Station, Region I

The Nine Mile Point (NMP) chapter recently completed its biggest, and best, Nuclear Science Week (NSW) with five events that greatly expanded the site's outreach efforts. Significant senior leadership support and site engagement across multiple departments were critical in planning and carrying out this great week.

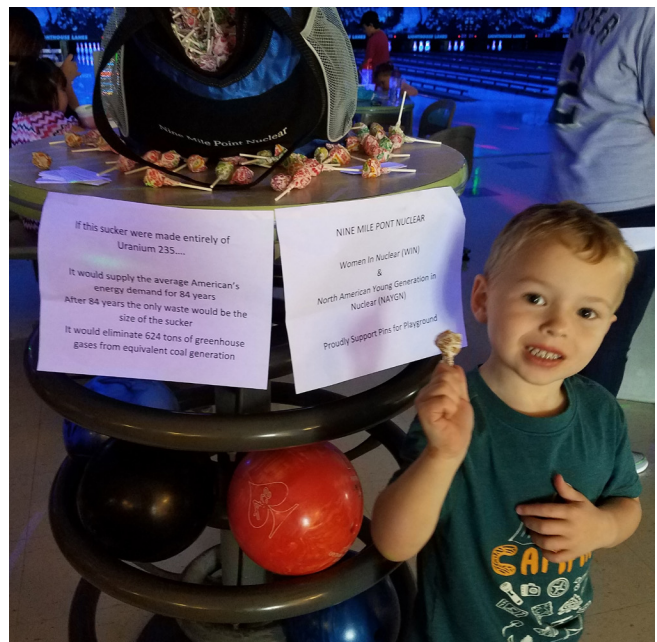
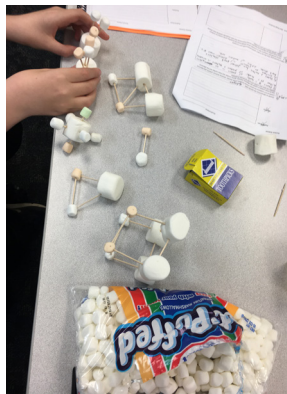
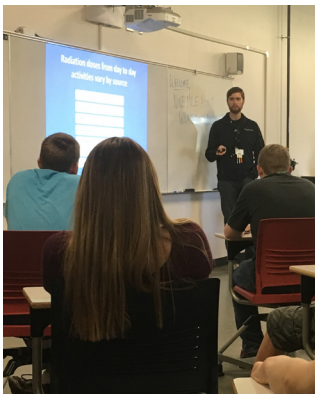
**Boy Scout Nuclear Science Merit Badge at Ginna Nuclear Power Plant:** NMP partnered with teammates at Ginna to host approximately 40 Scouts and parents for a day session. Parents were given a tour of the plant while Scouts worked on the merit badge. The favorite activity that day was radioisotope modeling with marshmallows.

**Cornell University Tour of Unit 1:** Students taking an Introduction to Nuclear Fission class at Cornell University were given a presentation on the basics of Boiling Water Reactor operations and a tour of Unit 1. Students participated from across several engineering disciplines and challenged station volunteers with the questions they asked.

**Outreach Session at Oswego County P-TECH High School:** A 2-hour discussion was held at a technical high school in Mexico, NY, with a group of ninth graders. A demonstration was conducted with the students to illustrate the concept of nuclear decay and half-lives. The faculty took the group on a tour of facilities and formally requested the NMP chapter to take part in their mentoring partnership program. The chapter has begun the process of evaluating interest and logistics for this endeavor.

**Science Saturday at the Children's Museum of Oswego:** In conjunction with a local retired teacher, the chapter talked to a group of kids about the concept of invisible energy (radio, magnetism, nuclear, etc.). Volunteers used M&Ms to illustrate the concept of nuclear decay. The kids took an interest in the event, and of course loved the candy.

**Playground Event:** The NMP chapter sponsored a lane at a bowling fund-raiser for a local school and handed out lollipops that said, "If this sucker were made entirely of Uranium-235, it would supply the average American's energy demand for 84 years. After 84 years the only waste would be the size of this sucker. It would eliminate 624 tons of greenhouse gases from equivalent coal generation." 🌟



TOP LEFT: A guest lecture held at the Oswego County P-TECH High School discussed safety, radioisotopes, power, security, space exploration and medical applications of nuclear energy.

TOP MIDDLE: Boy Scouts used marshmallows and toothpicks to create 3D models of radioisotopes.

ABOVE: "Uranium-235" lollipops illustrated nuclear power's energy density when handed out at a local school bowling fund-raiser.

BOTTOM LEFT: Kids at the Children's Museum of Oswego learned about the concept of half-lives with M&Ms during a Science Saturday event.



# Three Mile Island Hosts Nuclear Science Week Event with Middletown High School

Submitted by: **Tammy Hanlon**, Instrument Chemist/Radiochemist, Exelon Generation Three Mile Island Nuclear Station, Region I

Thirty-two Middletown Area High School (MAHS) students, grades nine through 12, and two educators attended the second annual Nuclear Science Week event at the Three Mile Island (TMI) Training Center in Middletown, PA, in October.

Denise Ingoe, Exelon Fleet Assessor, kicked off the day with an overview about nuclear power. While the students enjoyed breakfast, the presentation began with "86 seconds on nuclear energy and gum balls," a video that demonstrates how a small amount of fuel can provide the same amount of energy as larger amounts of oil, natural gas, or coal. The students learned why nuclear is green energy and how it helps lessen fossil fuel use and reduces air pollution by being a zero-carbon emitter. Students then divided into five groups to participate in several informative presentations relating to nuclear power. The sessions included nuclear fuel/fission process, radiochemistry, health physics, reactor building construction, and power transmission/distribution.

After lunch, the students participated in hands-on activities. Half of the group received a tour of the TMI Unit 1 Control Room Simulator and discussed the training and educational requirements for becoming a nuclear control room operator. The students got to participate in safely shutting down the reactor after a nuclear plant trip. They saw panel lights and heard alarms to experience what it would be like if an event were to happen. The other half of the class participated in one of two activities. One group constructed "candy reactors" using straws, Nerds candy, marshmallows, Twizzlers, and lemon-lime soda. The students enjoyed creating and consuming their reactor. The second group dressed out in anti-contamination clothing and had their pictures taken with a TMI background.

The students left with an increased knowledge of how nuclear power works and that it is safe, run by highly qualified employees, and good for the environment. The MAHS career pathway chair for Engineering and Industrial Technology stated that, "visiting locations such as Three Mile Island helps students understand the numerous types of careers that are represented at large companies ... from safety inspectors, nuclear engineers, mechanical/civil engineers, skills trades, security, chemistry, human resources, media relations, and many more." ✿



# Penn State Chapter Hosts Region 1 Workshop

Submitted by: **Katie Bench**, Workshop Chair, Penn State College, Region I

In September, the Penn State University (PSU) Chapter of U.S. Women in Nuclear became the first student chapter to host the Region I Workshop, which included panel discussions, a speed networking event, dinner, and other activities.

Dr. Arthur Motta, Chair of the Nuclear Engineering Program, welcomed attendees and introduced the Harold and Inge Marcus Dean of Engineering Dr. Justin Schwartz, who was pleased to see a gathering of women in the nuclear industry. Schwartz was followed by two Penn State professors — Associate Professor of Engineering Communications Michael Alley spoke about rethinking engineering presentations and the assertion-evidence approach, and Dr. Kenan Ünlü, Director of the Radiation Science and Engineering Center, who spoke about Penn State's on-campus reactor and the research that he leads. Candace Davison, PSU chapter adviser, then led a trivia game and icebreaker activity, where everyone was given a colored piece of paper with a description on it. Attendees had to find other people with that color paper and figure out what nuclear-related object was described.

Nuclear Energy Institute (NEI) Vice President for Policy Development and Public Affairs John Kotek and APCO Worldwide Senior Associate Director Casey Douglas held a panel discussion about Nuclear Powers Pennsylvania, a new coalition supporting nuclear in the state. Kotek also spoke about the status and outlook of nuclear energy.

After lunch, attendees visited the on-campus Breazeale Nuclear Reactor and shared their best chapter practices and activities. These ideas were collected and will be distributed to Region I.

David Scott, senior technical leader of Advanced Nuclear Technology at Electric Power Research Institute (EPRI), started a panel about EPRI's Advanced Reactors Program and what they plan to do in the future. James Tusar, Senior Manager of Spent Fuel at Exelon Generation, then spoke about innovation in today's reactors. He discussed the new applications used in reactors already and what is being planned for the future. Dr. Nicholas Brown, Assistant Professor of Mechanical and Nuclear Engineering at Penn State, wrapped up the panel with advanced fuel and cladding in Light Water Reactors. He talked about his research and the importance of advanced fuel and cladding in dealing with nuclear accidents.

PSU Chapter President Kerri Smalec organized a speed networking session. Attendees stood face to face across tables and were given a list of potential questions to ask each other to start a conversation. Every 5-6 minutes, everyone moved down the line to talk with someone else. This was a good way for students and professionals to interact, and for everyone to get to know each other. During the speed networking session, Chapter Treasurer Nathasha Ramirez took professional photos of anyone who gave a donation.

At the end of the workshop, Chapter Workshop Chair Katie Bench and Davison thanked everyone for attending and encouraged feedback. A dinner took place at the hotel to close the workshop, and participants who were available the following day were invited to join tours of the Arboretum and Pegula Ice Arena.

The workshop was an overall success, with many positive reviews and compliments. The PSU chapter members are proud of their accomplishment and hope that other student chapters will have the opportunity to follow in their footsteps. ✨



Jocelynn Kelly (Social Chair), Nathasha Ramirez (Treasurer), Dr. Arthur Motta, Dean Justin Schwartz, Josh Moyer (Vice President), Kerri Smalec (President), and Katie Bench (Workshop Chair).



Jocelynn Kelly giving an example of an assertion-evidence presentation under the guidance of Michael Alley.



Workshop attendees mingling.

## Introducing Students to Nuclear

Submitted by: **Dani Brookhart**, ODCM Chemist, Exelon Generation Three Mile Island Nuclear Station, Region I

I love what I do at Three Mile Island (TMI). As the ODCM Chemist, I have a challenging but rewarding day-to-day position. One of the best parts of working at TMI is the amount of public outreach opportunities we support through U.S. Women in Nuclear.

In December 2017, TMI Reactor Engineer Mara Levy and I led a Career Day event for 36 eighth graders from Middletown Area Middle School in the TMI Training Center. The students arrived, had a morning snack while we introduced ourselves, and then began the first of three activities planned for them.

John Tesmer, the simulator coordinator at TMI, gave the students a tour of the simulator to show them what a Control Room Operator sees during a normal shift and how much effort goes into running the plant each day. The students also had the opportunity to hear and see what occurs in a control room when something drastic happens within the plant. Levy demonstrated how counting instruments work using fiesta ware. Materials were brought in from home to demonstrate that radiation can be found in everyday items. The students saw mock ups of fuel assemblies and had a chance to ask questions.

We also walked the students through the creation of a candy reactor. This hands-on activity was designed to showcase the components of a nuclear reactor and demonstrate how they fit and work together to make safe, reliable power. While the students were making their candy reactors, we discussed all the careers available in the nuclear industry and what they should be focusing on in school if they want to pursue a career in nuclear.

The students enjoyed the hands-on activities, and the teachers appreciated the manner in which the morning was scheduled to keep the eighth graders engaged. ✨

## U.S. WIN Fall Webinar – Advocating for Our Future

Submitted by: **Noel Matheny**, Industry Specialist, ValvTechnologies, Region IV

In October, the Professional Development Committee hosted its Fall Webinar, Advocating for Our Future, a panel discussion on advocacy and what we can do to improve the perception of our companies and the nuclear industry.

The session was facilitated by Tamara Kenney of Duke Power and the panelists included Communications Advisor Suzy Baker from Third Way, Sr. Associate Director of Nuclear Matters Casey Douglas, and Manager of Decommissioning Kristin Zaitz from Pacific Gas and Electric Company's Diablo Canyon Power Plant. Suzy shared insights on the science of advocacy and Casey and Kristin provided ideas for how to tell a story about nuclear that is not just about the safety or science.

More than 350 members registered for the webinar. Based on the survey that was sent out afterward, the webinar hit the mark. Attendees felt that they received valuable information from the panelists and were armed with techniques they could implement when interacting with the public in the future.

The slides are available on the U.S. WIN website under the Professional Development tab. The link to the recorded version of the entire webinar (in case you missed it) is below.

[HTTPS://INPO.WEBEX.COM/INPO/LSR.PHP?RCID=6655E2FC1FCC48C2BF2E485E56D30EB5](https://inpo.webex.com/inpo/LSR.php?RCID=6655E2FC1FCC48C2BF2E485E56D30EB5)

The Professional Development Committee is considering the topic ideas submitted after the webinar. If you have any ideas, please forward them to the Professional Development Committee at **ProfDvmt@winus.org**.



## RESTRUCTURING ANNOUNCEMENT

It has been another great year for U.S. Women in Nuclear and we have so many accomplishments to be proud of. With more than 8,000 members, we are making several changes to our structure to set us up to operate more effectively in the future. One of the biggest changes is that the steering committee organization now has a Chair, Susan Korn, and Vice-Chair, Jhansi Kandasamy.

Carol Berrigan has stepped down from the steering committee – but please don't panic, Carol is not leaving U.S. WIN. She will remain an active member. (A very special thank you to Carol for her leadership and dedication to U.S. WIN for the last several years!) Kaitlin Rekola will be the new NEI representative on the steering committee and Pam Cowen will be the NEI executive sponsor. Kaitlin and Pam will ensure that we have the right engagement and support from the NEI organization as we move forward.

Another major change will be a new and improved website. We currently have a project team, led by Kaitlin, working on this effort. This website will be our primary communication vehicle and have a lot more flexibility and functionality than the current site. We are tentatively looking for a 1Q 2018 launch for this effort to complete. In the interim, we will be ensuring the existing site remains current.

We are excited for these changes and thank you for all you do for U.S. WIN and our industry – you make a difference!

### Follow U.S. WIN On Twitter!

Follow [@WomenInNuclear](https://twitter.com/WomenInNuclear) to keep up with U.S. WIN happenings.

We welcome your suggestions and comments by direct message on Twitter. If you'd like to join the Twitter Team, please email [CommComm@winus.org](mailto:CommComm@winus.org)

## SUBMIT YOUR STORY TODAY

We want to know what your U.S. WIN Chapter is doing to support an environment in nuclear energy and technologies, provide a network for professional development or provide public education opportunities. This is how you can contribute:

### 1. COMPOSE YOUR STORY.

Brag about a great event you put on recently, tell us about something important happening at your facility, or highlight a personal achievement of a member of your chapter. You can type it in a word processor document, or even just put it in the body of an email. Make sure to include your name, plant and company, region, daytime phone number and email address.

### 2. ADD PHOTOS.

They say a picture is worth a thousand words so be sure to add a photo! Photos make your story pop and add that personal touch. Make sure that you follow the guidelines – get permission from everyone in the photo before you submit it. You can find a copy of the release form at the U.S. WIN website.

### 3. SUBMIT YOUR STORY.

Email your story and photos to [CommComm@winus.org](mailto:CommComm@winus.org).

For a complete set of submission guidelines, go to [www.winus.org](http://www.winus.org), click on Member Resources, select Publication Materials, then U.S. WIN Newsletter Submission Guidelines.