CNTA reveals essay contest winners

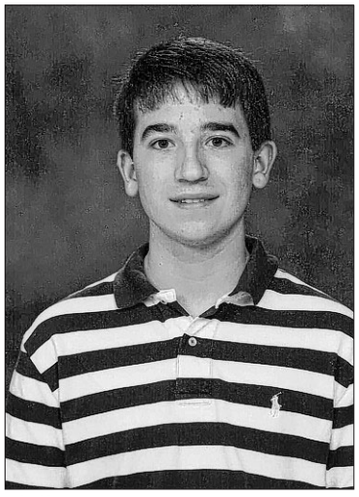
Clint Wolfe, the Executive Director of Citizens for Nuclear Technology Awareness (CNTA), today announced the winners of the CNTA 2014 High School Essay Contest:

• Jackson Poole from North Augusta High School for "Patients Wait – Hopes Deteriorate: The Importance of Isotope Supply in Nuclear Medicine"

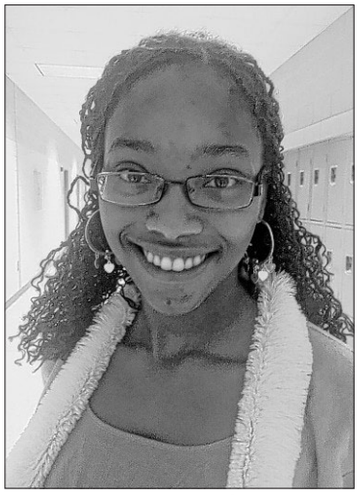
• Phillip Wiggins from Greenbrier High School for "The Implications of a Decline in Isotope Supplies"

• Ayanna (Yanni) Woods from Greenbrier High School for "Nuclear Medicine and Its Fragile Isotope Supply"

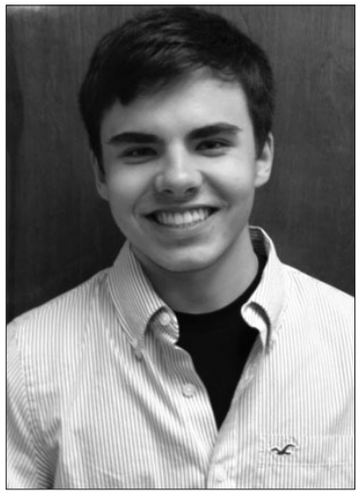
Each of the three winners will be awarded a $1,000 prize and their individual high schools will each receive a check for $500 for classroom supplies and equipment. In addition, the three winners, their parents, and a school teacher of their choice will be the guests of honor at the upcoming Teller Lecture and Banquet to be held during National Nuclear Science Week on October 20.



Phillip Wiggins



Ayanna (Yanni) Woods



Jackson Poole

"I'm thrilled at the outstanding essays we received in this year's contest," said Wolfe. "The interest in nuclear technology among the rising generation is both gratifying and encouraging. The students and their teachers are to be congratulated."

Noting that coincidentally the winning essays focused on medical isotopes, Wolfe commented that, "Nuclear medicine is a critical but frequently overlooked technology. Nuclear science is about more than power generation and national defense. It's also about saving lives on a daily basis."

CNTA is an Aiken-based charitable educational organization dedicated to providing factual information about nuclear topics and educating the public on nuclear issues.

The annual essay contest is one of many educational projects sponsored by CNTA that include the annual Teller Lecture and Banquet, monthly Up & Atom breakfasts, an interactive nucleus exhibit at the Ruth Patrick Science Education Center, an active speaker's bureau, and periodic teachers workshops that assist middle and high school teachers in bringing nuclear science topics into the classroom.

The winning essays are attached and are also are available on the CNTA website at www.c-n-t-a.com. For further information, call CNTA at 803-649-3456 or e-mail at cnta@bellsouth.net.

Superstition and Safety

SUBMITTED BY CNTA

The longer I live on this planet the more I realize that, no matter what you do or don't do, there is always a risk involved. It is the evaluation of relative risks and potential rewards that drive us to make a whole host of decisions.

This is an easy process when we deal with quantitative measures like dollars and cents, but it is a harder thing to do when the perception of risk is based on fear, myths, or superstition.

It is harder because superstitions, like walking under a ladder, breaking a mirror, black cats, etc., are not based on fact, but on fear. In fact, the definition of a superstition is that it is a strongly held belief that is not supported by the facts.

This became very obvious to me recently when a golfing companion, who was familiar with the term "risk/reward" on the golf course, asked me if I were comfortable being an advocate of nuclear energy. I told him I was very comfortable, but why did he ask?

He said, "Well, you know. The safety issues."

"What safety issues are you concerned about," I asked.

At this point he rapidly cited references to the potential for a nuclear bomb-like explosion, Three Mile Island (TMI), lethal nuclear waste, and the exposure of the public to radiation from the nuclear plant.

"Whoa," I said. Let's deal with each of those. First of all, it is not possible to have a nuclear bomb-like explosion. The fuel simply would not support such an event. Secondly, TMI was the worst commercial nuclear accident in our history, but no one was killed, injured or exposed to dangerous levels of radiation.

As for "lethal" nuclear waste, it has never killed anybody. All of our nuclear waste is safeguarded. We know where it is. It is monitored and isolated from the public and the environment.

Compare that to how we have treated fossil fuel waste residues and gases. As for radiation exposure, the dose received at the boundary of a nuclear power plant is about the same as one would get from a banana. End of story.

But my friend persisted. He said, "Well, how come you always read about safety issues at nuclear power plants?" I told him that the nuclear industry takes safety very seriously.

After TMI the industry formed its own organization called "Institute for Nuclear Power Operations" or "INPO." It started with lessons learned from TMI. INPO became the industry's self-policing organization. It championed safe equipment, operations, training and culture.

In addition, the Nuclear Regulatory Commission (NRC) has resident inspectors at every nuclear plant. Things that would be unreported in a refinery or a chemical plant get noted and reported in a nuclear facility. These events often wind up in the news because the industry's standards are so high that even relatively insignificant issues are reported to the NRC.

My friend said, "It sounds like it costs a lot of money to be safe." "On the contrary," I said. "Being safe is good business." Since TMI and its aftermath, including the establishment of INPO, the nuclear industry has nearly doubled the amount of electricity generated from nuclear power plants.

Incredibly, this was accomplished without building any more nuclear plants. Operating safely, understanding margins in their designs and improving schedules for maintenance, inspections and refueling have all contributed to the growth of nuclear generated electricity.

At this point, my friend said he was trying to give his teenage daughter some ideas about potential career paths but had avoided the nuclear business because of his concern about safety in the industry.

He said they had discussed oil exploration, marine biology, real estate and investment banking, among others. I cited safety statistics for him that showed the nuclear industry to be safer than any of those fields.

He was amazed to learn that there has never been a fatality in the U.S. due to the commercial generation of electricity by nuclear power after a history of more than half a century.

As we finished the round of golf, my friend said, "How did I get it so wrong?" I told him I didn't know because the facts speak for themselves, but we all have a tendency to believe things that are repeated as fact without doing our own research. Sort of like not letting a black cat cross your path.