

# A toast to ice cream and electricity!

BY COLLEEN WELCH

Ice cream is better for you, thanks to radiation. Ice cream, among other foods, is irradiated to kill bacteria, insects and parasites that can cause food-borne diseases. While the nuclear treatment does not make the food radioactive, it does increase shelf life and eliminate pests. Another little known fact about radiation—we are all radioactive. The potassium and carbon in our bodies emit naturally occurring radiation (about 4,000 times a second.)

Radiation occurs everywhere, and most people are not even aware of it. Earth is comprised of naturally occurring elements that emit radiation. For example, uranium, radium and thorium are in the Earth's crust. We also receive radiation from cosmic rays and the sun.

The average American is exposed to about 620 millirems (a unit of measurement for radiation) a year from natural and man-made radiation. To put that amount of exposure in perspective, the food and beverages we consume account for about 30 of the millirems we're exposed to throughout the year. Bananas, carrots and even beer make the top of the list of

radiation-producing food and drink.

And it doesn't do any harm to you.

Of course, nuclear technology has many applications beyond food irradiation. Nuclear power plants safely and reliably generate 52 percent of South Carolina's electric power. They provide 20 percent of our nation's electricity.

More than 30 countries are using nuclear technology to generate electricity. These facts are not common knowledge, but there are several organizations out there that advocate for nuclear advancements, such as Citizens for Nuclear Technology Awareness (CNTA) in Aiken.

CNTA is a nonprofit organization that acts as the Central Savannah River Area's (CSRA) "nuclear voice," whose mission is to provide citizens with objective and factual information about all things nuclear. In essence, CNTA was created to bust myths about nuclear activity. It is no secret that the nuclear field is an integral aspect of the local landscape, with both the Savannah River Site (SRS) and Plant Vogtle residing in the area. While SRS has played a key role in the CSRA for more than 60 years, it still remains one of the least understood facilities in the nation. However, SRS is one of



## FACILITY FACTS

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the most essential U.S. Department of Energy (DOE) sites, not only for its mission to clean up Cold War-era legacy waste, but for cutting-edge technological development as well.

There are an incredible number of initiatives taking place at SRS; many have been or will be game-changing. For instance, imagine a world where electricity is powered by nuclear fuel made from weapons-usable material – truly swords to plowshares. Other unique attributes of SRS:

SRS employees are operationally closing tanks that contain high-level radioactive liquid waste – one of South Carolina's top environmental risks, according to state regulators. Six waste tanks have been closed to date.

The only high-level waste vitrification facility in the nation is operating at SRS. To date, the Defense Waste Processing Facility has filled nearly 4,000 canisters of glassified waste.

SRS is converting local steam and electrical

generation facilities to cleaner bio-fueled technology with reduced greenhouse gas impact. Environmental stewardship is an essential value at SRS.

SRS manages the nation's supply of tritium, the hydrogen gas in nuclear weapons. The Site, with over half a century of consistent delivery in support of the U.S. military, extracts new tritium from rods irradiated by the Tennessee Valley Authority and recycles it from existing warheads.

H Canyon is the only hardened nuclear chemical separations plant still in operation in the U.S. The facility is used to process nuclear materials. The Savannah River National Laboratory is an applied research and development institution that serves the nation in three major areas: National security, environmental stewardship and clean energy.

The Laboratory serves clients throughout the U.S. and the world, providing innovative solutions not only to the federal government, but to private industry, as well.

There are many more initiatives happening at SRS and surrounding nuclear sites; the nuclear horizon is something to look forward to.

Whether its ice cream, electricity or beer, the benefits of nuclear abound.



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