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**DOE-ID Operations Summary
For the Period December 01, 2013 through January 15, 2014**

***EDITOR'S NOTE:** The following is a summary of contractor operations at the Idaho National Laboratory, managed by DOE- Idaho Operations Office. It has been compiled in response to a request from stakeholders for more information on health, safety and environmental incidents at DOE facilities in Idaho. It also includes a brief summary of accomplishments at the Site. POC –Danielle Miller, (208) 526-5709.*

Advanced Mixed Waste Treatment Project (AMWTP)

Nothing to Report

Idaho Cleanup Project (ICP)

December 3, 2013: A facility manager at the Idaho Nuclear Technology and Engineering Center confirmed a potential inadequacy in a facility safety document which had resulted in a reoccurring error in operations. An error in an array calculation was detected, and traced back to 2004. All operations at the facility have been suspended until the error can be corrected. [EM-ID-CWI-FUELCSTR-2013-0003]

Notable Accomplishments: Idaho Cold War Waste Removal Advancing as Work on Eighth Area Begins

The U.S. Department of Energy and Idaho site cleanup contractor CH2M-WG Idaho (CWI) have begun removing Cold War weapons waste at the eighth area of the 97-acre Subsurface Disposal Area (SDA). The Idaho Site contains a total of nine targeted waste areas within the SDA. To date, six retrieval areas have been successfully exhumed and completed.

Since 2005, crews have been digging up targeted transuranic and hazardous wastes as agreed to with the state of Idaho from the Site's Radioactive Waste Management Complex and shipping the waste for permanent disposal near Carlsbad, New Mexico. The waste was generated during nuclear weapons production at the Rocky Flats Plant near Denver, Colorado, and was buried in Idaho from 1954 to 1970.

In late 2012, waste exhumation was suspended due to impacts from the continuing resolution and sequestration. However, CWI and the DOE Idaho Operations Office identified efficiencies within other cleanup projects at the Idaho Site allowing for the resumption of waste exhumation in late September 2013. CWI has hired 62 employees to support this workscope.

The eighth waste exhumation campaign is taking place in the largest enclosure ever built on the SDA. Spanning 1.72 acres, the soft-sided building contains a series of gloveboxes and drum packaging stations as well as a state-of-the-art air filtration system. Modified excavation equipment, designed to protect the operator with supplied air, is being used for the exhumation.

Waste exhumation is taking place in Pits 1 and 2 – the first pits used for waste disposal from the Idaho Site and the Rocky Flats Plant in the early 1950s.

To date, 3.16 acres of targeted waste has been exhumed of the 5.69 acres required under a 2008 Record of Decision with the DOE, state of Idaho and Environmental Protection Agency. The overall buried waste project will cost approximately \$1.3 billion and is expected to continue into the next decade.

Idaho National Laboratory (INL)

December 12, 2013: The Advanced Test reactor entered in to Limiting Conditions for Operation, when control room personnel identified that a tank flow transmitter indication was at its low value. ATR management decided to stay in the LCO until the mode of applicability is exited or the indication is fixed. [NE-ID--BEA-ATR-2013-0042]

December 17, 2013: An automatic reactor scram occurred. Reactor personnel determined that NRAD scrambled as a result of the failure of an automatic control circuit which caused the regulating rod to move out resulting in an automatic high power scram. The reactor was placed into safe and secure mode until the circuit can be replaced. [NE-ID--BEA-NRAD-2014-0001]

January 3, 2014: A pressure transmitter at the Advanced Test Reactor failed, and then returned to normal. The trend graph showed pressure spiked high, then failed, and then returned to normal. A Limiting Conditions for Operation was entered, and an alternative indication for determining flow was established, which showed no change. [NE-ID--BEA-ATR-2014-0001]

Notable Accomplishments: INL scientist helps student use laser to remove graffiti for senior project

Idaho National Laboratory's award-winning researcher, Dr. Robert V. Fox, focuses like a laser on helping aspiring engineers and scientists learn about technologies, career potential and the benefits that applying technology can offer to a community.

"Young people need some help in understanding technologies like lasers," Fox said. "But just as importantly, they need to know how applied technologies can be used in a community to do good things."

Fox has dedicated dozens of hours to help Bonneville High School senior Patrick McIlwain get familiar with laser technologies and direct that knowledge toward a senior project with impact: removing graffiti from areas designated by Idaho Falls City Parks and Recreation staff.

"I thought learning about lasers would help me decide on whether I wanted to pursue a degree in engineering," McIlwain said. "So, I asked Dr. Fox if he would help me in learning about lasers, how they work and maybe even build my own laser unit."

"It has been very interesting and a lot of fun working on this senior project," he added. "I am planning on attending Montana State University next year and they have a good engineering reputation."

On a Saturday morning in September, Fox began the session with a safety briefing for McIlwain about operating the Class IV laser, ensuring the proper eye protection was provided. So passersby also would be protected from eye injuries, Fox placed opaque panels around the work, establishing a safety zone of about 60 feet beyond the panels.

"We are most appreciative of the efforts made by Dr. Fox and Patrick McIlwain to remove graffiti from public walkways, bridges and scenic paths," said Greg Weitzel, director of Idaho Falls Parks and Recreation. "It is important for students to learn how difficult it is for communities to maintain parks and recreation equipment."

McIlwain and Fox spent most of the weekend cleaning six locations near Sportsman Park, adjacent to the Snake River in downtown Idaho Falls. The city greenbelt running path and pedestrian bridge were marked with small and large graffiti signs.

"It has been a real challenge to keep up with the amount of graffiti that occurs during the summer months," said Weitzel. "This senior project is helping us make progress on returning these areas to their original state for the benefit of our residents and visitors."

Fox, an inventor with about 20 patents, has often served as a mentor to students during the past dozen years. In 2011, he and another inventor earned a \$5,000 prize for a technology entered in the Gordon Battelle Prize competition and sponsored by Battelle Memorial Institute in Columbus, Ohio. The prize was donated to Idaho Falls High School and helped refurbish outdated chemistry laboratories in the school.