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**MELTER 2 AT DEFENSE WASTE PROCESSING FACILITY DOUBLES
THE WASTE TURNED TO GLASS COMPARED TO MELTER 1**

AIKEN, S.C. (April 18, 2016) – The “heart” of the Defense Waste Processing Facility (DWPF) at the Savannah River Site (SRS) continues to set records in turning radioactive waste into glass.

Melter 2, the second melter ever installed in DWPF, is now 13 years old and has poured just over 10.4 million pounds of glassified waste. Melter 1 poured about 5.2 million pounds of glass during its seven-year run at the facility.

Twenty years ago in March, the first high-level waste at SRS was converted into glass at DWPF, the nation’s only operating vitrification facility. DWPF has been the reliable workhorse of liquid waste operations at SRS.

A melter is a 65-ton, teapot-shaped vessel that treats high-level radioactive waste being stored in SRS waste tanks by blending it with a borosilicate frit to form a molten glass mixture. The mixture is poured into stainless steel canisters, which are decontaminated and stored safely on-site until a permanent storage facility is identified.

This melter has poured 2,678 canisters compared to the 1,339 canisters poured by Melter 1. In total, DWPF has poured nearly 16 million pounds of molten glass since 1996.

The predicted number of canisters needed to dispose of SRS’ current high-level waste inventory is 8,210, so the facility is nearly halfway to completing its mission.

Some of the reasons for the increased time Melter 2 has been operational include:

- Fitting the pour spout with an improved insert used from the beginning of this melter’s operation ensures glass waste doesn’t cause the melter’s pour spout to erode;

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DWPF Melter 2

- Heating the internal area where the glass flows into a canister to ensure it does not stick to the melter pour spout area;
- Adjusting electrical current to the electrode heaters inside the melter to increase its heating capacity and to prevent a failed heating component from negatively impacting waste glass production; and
- Installing agitation bubblers that are used to improve the heat distribution in the waste glass pool in the melter to achieve a better pour rate.

Jim Folk, DOE-Savannah River Assistant Manager for Waste Disposition, said canister production continues to be a high priority for SRS's liquid waste program.

"Since beginning operations, DWPF has immobilized more than 58 million curies of radioactivity," Folk said. "DOE continues to ensure that waste is removed from the tanks further reducing the risk posed by this high-level waste."

Mark Schmitz, Acting SRR President and Project Manager, added that the facility's continued success was a tribute to innovative thinking by employees.

"Our workers safely disposition some of the most hazardous waste in the country," Schmitz said. "They are always looking for better and safer methods to meet the liquid waste mission at the Site in a way that exceeds expectations."

SRR keeps one melter in storage in case the working melter needs to be replaced. Currently, Melter 3 is waiting in storage and is ready when needed.

-DOE-

SRS is owned by DOE. The SRS Liquid Waste contract is managed by SRR, which is composed of a team of companies led by AECOM with partners Bechtel National, CH2M and BWX Technologies. Critical subcontractors for the contract are AREVA, EnergySolutions and URS Professional Solutions.

Additional information on the Department of Energy's Office of Environmental Management and the Savannah River Site can be found at <http://www.em.doe.gov> or <http://www.srs.gov>.

News from the Savannah River Site

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Caption:

The Defense Waste Processing Facility's Melter 3 in storage at the Savannah River Site. Savannah River Remediation keeps one melter in storage in case the working melter needs to be replaced. The current melter has been in operation for 13 years and poured over 10 million pounds of glassified waste.

