Tank farm waste cleanup helps pave "path to glass’

Now in our 12th year as Hanford’s tank operations contractor, the Amentum-led Limited Liability Company, Washington River Protection Solutions (WRPS), is honored and proud of the legacy it has built in advancing the nation’s largest and most complex environmental cleanup mission.

On behalf of the U.S. Department of Energy (DOE), WRPS has protected the environment and the public by safely managing 56 million gallons of highly radioactive nuclear waste in 177 underground tanks. Today, we are One Hanford, marching in lockstep with DOE and other Hanford contractors in paving the “path to glass” toward waste treatment and disposal in glass form.

Over the past 12 years, WRPS has introduced a new level of rigor and discipline in tank farm work processes. The WRPS Conduct of Operations program has continuously sharpened on-the-job practices, refined our processes and automated many tasks to improve safety, reduce costs and gain efficiencies. As a result, the company has been recognized internationally for outstanding project management.

**Notable cleanup progress**

For most of our contract, the tank farms team has focused on removing and transferring waste from older single-shell tanks to more robust double-shell tanks. Removing waste from the single-shell tanks — which have long since passed their original design life — is one of the most complex challenges in the DOE complex. To date, we’ve completed waste removal from 18 underground tanks, and we are on the cusp of completing retrieval in the 19th tank, AX-102. Then, we start removing waste from Tank AX-104 to complete a legally enforceable milestone by June 2021, with plans to address six additional tanks in A Farm in the years that follow.

With tank retrieval as a cornerstone of our mission, our heightened focus is on building a waste delivery system to help achieve DOE’s goal of beginning waste treatment by the end of 2023. Today, we are constructing a system that will separate cesium and undissolved solids from radioactive tank waste, providing a low-activity waste stream to the Waste Treatment and Immobilization Plant (WTP) for making glass.

For waste feed delivery and other tank farms projects to run smoothly, upgrading critical infrastructure is paramount. One of our major successes this past year was improvements made at the Effluent Treatment Facility (ETF), where we processed 3.4 million gallons of wastewater. ETF will support WTP operations for years to come.

**A formula for success**

WRPS prides itself on looking ahead, thinking creatively and delivering solutions. We continue to be recognized for our innovative tools and approaches that improve worker safety and project efficiency. This included addressing a long legacy of chemical vapor
issues at the tank farms by drawing on the expertise of the national laboratories and other experts to implement a comprehensive risk-based strategy to protect workers.

Another example is the development of dynamic inspection capabilities and technologies that allow us to better evaluate structural integrity of our carbon steel tanks. For the first time, WRPS successfully performed under-tank inspections using robotic tools that resemble miniature Transformers.

How do we accomplish so much in an extremely hazardous and challenging environment? Our people. WRPS’ nearly 3,000 employees work hard, work smart and work safely. They plan each job thoroughly, address potential hazards and use the most effective tools to get the job done right. It’s why WRPS ranks as the safest cleanup contractor in the DOE Environmental Management complex.

**Partnering with clients, contractors and the community**

Teamwork also is essential to our success. It means partnering with our DOE client, regulators, other Hanford contractors and a wide range of stakeholders to move the cleanup mission forward. Our success is a function of the hundreds of businesses in our community with which we have subcontracted.

Since 2008, we’ve spent $900 million in local business subcontracts and more than $1.3 billion with small businesses. In addition, the $6.5 million we’ve donated to area programs and initiatives has improved quality of life in one of the best communities in the nation.

WRPS’ corporate heritage combines three of the world’s strongest engineering, construction and remediation companies: Amentum, Atkins, and Orano. As we continue in our 12th year, Amentum and our partners are committed to building on our historic legacy of “success delivered” and “finishing proud.”