UniTech and Exelon Pilot Tool and Equipment Management, RFID Chipping Programs

So far in 2017, UniTech has worked with Exelon on two exciting projects that significantly cut costs and help fulfill the Nuclear Promise.

Tool & Equipment Management

Now more than ever, nuclear facilities must reduce and eliminate unused, left-behind material from past projects. Still, nuclear fleets spend millions of dollars each year on new tools and equipment to support site operations and outage work, in part because previously used tools may be difficult to locate, or because their contamination status is unclear. Loaded trailers, containers and FRAC tanks sit idle over time. Warehouses, basements and designated storage areas overflow with loosely tracked tools and equipment. As staff sizes reduce, the opportunity to inventory, assess, decontaminate and reuse items decreases too. Conversely, radwaste liability and spending on new tools and equipment increase, creating a vicious cycle.

UniTech has developed a Tool and Equipment Management (TEM) service to help nuclear fleets achieve 30 percent cost reduction despite on-site challenges. The TEM service will utilize UniTech's Off-Site Decontamination & Recycling Program to manage tools and equipment for reuse and final disposition. UniTech's TEM service is designed to:

- Reduce new tool spending, radwaste spending, raw materials, and liability
- Reduce labor costs for locating tools, reduce overall inventory of tools and free up storage space
- Improve radiological safety, reuse items, ease ordering processes and promote fleet-wide sharing

UniTech’s new tool and equipment management service will account for scaffolding, frac tanks, lead-wool blankets, as well as miscellaneous tools and equipment.

Exelon recently piloted the new TEM service at LaSalle County Nuclear Generating Station. UniTech decontaminated and inventoried the tools and equipment post-outage, cataloged them in a digital database and then organized them into usable groups agreed upon in a pre-outage meeting. Each tool cabinet was visually marked with an inventory of its contents. Tools and equipment were then returned to LaSalle for reissuance, and the digital database was shared with department reps.

Based on the success of the pilot and fleet-wide cost projections, the service will yield an initial fleet-wide savings of $4 million on legacy material, with an additional savings of roughly $1 million each year.

ORSC & DAW Sorting

With UniTech's acquisition of the Oak Ridge Service Center (ORSC) formerly owned and operated by Babcock Services, Inc., customers have the benefit of even more cost-saving programs. UniTech now combines its monitoring and decontamination expertise with the newfound ability to provide licensed Bulk Survey for Release (BSFR) disposal at reduced rates. With its BSFR license, UniTech has begun implementing a Dry Active Waste (DAW) Sorting Program that produces significant savings figures.

UniTech can now sort customer waste into categories: tool and equipment for recycling, BSFR-level materials, items for decontamination, and items with potential for free release and/or scrap value.

Following D.C. Cook Nuclear Generating Station’s fall 2016 outage, UniTech’s ORSC sorted and processed 145,020 lbs. of total material. 85 percent of D.C. Cook’s waste qualified for BSFR disposal. By processing waste for BSFR disposal rather than Low-Level Radioactive Waste (LLRW) disposal, UniTech was able to save D.C. Cook...
UniTech is projecting to recover 30 percent of tools and equipment that would otherwise need to be repurchased. Obsolete items will be sold for shared scrap value.

Permanent disposition and its accompanying high costs are no longer the only clean-up option. This program helps fulfill the Nuclear Promise. Through TEM, Exelon can achieve demonstrable savings during outages.

With TEM, a facility’s tools and equipment will always be readily available. UniTech will maintain organized storage units during non-outage periods.

**RFID Chipping**

UniTech has collaborated with Datamars and Innovative Management Designs in a joint effort to provide a new inventory control solution to Exelon’s LaSalle County Nuclear Generating Station. Using RFID technology, we are helping LaSalle manage HEPA vacuum cleaners and 3M™ PAPR systems, ultimately improving inventory control processes, promoting safety and significantly cutting costs.

With this initiative, RFID tags are applied to all HEPA vacuum cleaners onsite. LaSalle personnel now scan all HEPA vacuums in storage with a handheld, Bluetooth-connected RFID gun to gain valuable information about calibration, testing and maintenance needs. Properly inventorying and maintaining HEPA vacuums can lead to substantial savings over time.

At LaSalle, it was noted that a number of 3M™ PAPR blower units were inadvertently slated for disposition with radioactive waste materials. To prevent such potential problems, UniTech applied RFID tags to all blower units and installed RFID detectors on the doorways leading to waste trailers. If blower units pass through the doorway in a bag of radioactive waste, an alarm will sound and emit a red flashing light. This new method of tracking PAPR blower units was successfully implemented throughout LaSalle’s February outage.

We are in the process of expanding our RFID offerings to include the control of access and operation of high radiation areas throughout nuclear sites. Keys to high radiation areas will be easily RFID-tagged and inventoried.

During this project at LaSalle, UniTech, Datamars and Innovative Management Designs worked closely with Exelon to integrate the RFID technology in compliance with Exelon’s IT and cybersecurity needs.

Overall, RFID technology has proven to be a viable solution for meeting LaSalle’s difficult inventory control, safety and cost prevention challenges. In-depth information on RFID implementation will be presented at UniTech R³ Nuclear Workshop.

To learn more about UniTech’s TEM or RFID Chipping programs, contact your account representative or call Gregg Johnstone at 413-543-6911 x 146.

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**Removing Fixed Contamination & Meeting Unique Decon Needs**

UniTech continuously incorporates new solutions into its tool and metal monitoring and decontamination service to offer customers best value. Choosing UniTech can mean up to millions of dollars in savings, fleet-wide.

UniTech engineered and designed the ChemClean process as a solution to a critical industry need. The ChemClean process was designed to meet the unique decontamination challenges of guide sleeves, shield plugs, VRS air handling systems, and various large and small components. The ChemClean process is ideal for all tough-to-decontaminate components. ChemClean is scheduled to be fully operational for the fall 2017 outage season.

ChemClean utilizes multiple acids and dispersants through a programmable chemical injection system. Temperature is selectable based on material needs to optimize decontamination. All off gas is processed through a chemical scrubber. Each ChemClean Acid Soak Tank has a 2,000 lb. capacity. Each unit has the ability to auto fill, rinse, drain, and neutralize, as well as an onboard filtration option.

For items that have fixed contamination levels that cannot be removed through standard methods, UniTech’s ChemClean process can remove millions of DPM from contaminated equipment. Ideal for tough-to-decon components, ChemClean accomplishes the difficult task of decontaminating components to achieve minimum detectable activity levels.

UniTech’s diverse arsenal of custom monitoring and decontamination methods assures all types of customer materials can be properly decontaminated and cost-effectively, reliably verified through our best-in-industry monitoring.
total waste cost savings close to 40 percent. For all DAW-sorted materials in the D.C. Cook project, UniTech achieved a composite price 40 percent lower than typical radwaste disposal rates.

The ORSC has handled various other processing projects, including eight shipments of scaffolding from Enrico Fermi Nuclear Generating Station. In fall 2016, ORSC processed 27 total shipments of material, yielding a highly competitive composite average price. UniTech is proud of the many advantages the ORSC affords our customers:

- Regional facilities can pick up materials from customers, then monitor, decontaminate and, as needed, ship to ORSC for licensed BSFR disposal at reduced rates.
- UniTech provides cost-effective non-outage tool and metal decontamination services via ORSC and its BSFR processing license.
- With ORSC, UniTech’s radiological monitoring and BSFR expertise provides cost-effective material processing, minimizing radiological waste expenses for customers.
- While at a customer’s facility for outage work, UniTech can easily pick up Dry Active Waste (DAW) for segregation and sorting. ORSC can provide sorting and analysis of DAW, metals, wood, and disposable garments, as well as in-house decontamination, recycling, free release of eligible materials, and materials transportation.

R³ Indianapolis: Delivering the Nuclear Promise

What steps are you taking to deliver the nuclear promise? What is your facility doing to reduce, reuse and recycle resources?

Excitement is building for the UniTech R³ Nuclear Workshop, set to take place June 28-30 in Indianapolis. Over the course of three days, attendees will exchange ideas, identify best practices and advance nuclear benchmarking.

Presentations, discussions and hands-on workshops led by industry experts are designed to help attendees achieve significant operational savings, reap regulatory compliance advantages and revamp nuclear facility processes.

This year’s UniTech R³ Nuclear Workshop topics of emphasis include:

- Radwaste savings through recycling and BSFR disposal
- RFID implementation for tracking HEPA vacuums, PAPRs, high-rad keys, and more
- “Just in-time inventory” – identifying cost effective products and eliminating warehouse costs
- Tool and equipment decontamination plus fleet management to reduce expenses and radioactive waste
- Site security: minimizing search and seal costs

The three-day event will also feature benchmarking and networking activities. Attendees are encouraged to bring a spouse or significant other to enjoy the city and the social activities provided as part of the workshop.

Register for the UniTech R³ Nuclear Workshop online as soon as possible to assure your attendance: www.UniTechUS.com/R3nuclearworkshop

Call 413-567-8700 x106 to register or call Gregg Johnstone at 413-543-6911 x146 for additional information.

Words of Wisdom

“Nuclear energy has a distinct set of attributes, generating vast amounts of electricity emission-free, around the clock. No other electricity source can match that.”

– Judd Gregg, Co-Chair of Nuclear Matters, Former Senator (R-NH)
Unitech Staff Updates
Strategic New Hire

Please join us in welcoming new hire Bryan Guckian! Bryan will serve as Technical Account Manager to the Mid-Atlantic region as well as parts of the Southeast region. He brings a valuable skillset to the Unitech team, with technical nuclear engineering expertise as well as account management experience.

A hardworking veteran, Bryan was trained as an engineering laboratory technician by the Navy Nuclear Power Program. He served as Plant Operator, Technical Expert Consultant and Work Center Supervisor aboard the USS Harry S. Truman from 2011 to 2015. During his time in the Navy, Bryan trained and managed fellow nuclear personnel.

Bryan most recently worked as an account representative for Austin, TX-based Bradley Morris, Inc., where he built partnerships with Fortune 500 and Fortune 1000 companies to hire military-experienced talent.

Cooper Nuclear Saves $273,000 with Unitech One Program

During its fall 2016 outage, Cooper Nuclear Station switched from single-use disposable garments to Unitech’s One Program and launderable garments. By making this transition, Cooper achieved an estimated 40-plus percent savings totaling $273,000. This total savings meant Cooper saved $7 per entry.

Unitech’s One Program ensured Cooper paid only a cost-per-use for items processed, instead of paying for a large number of single-use disposable garments and having to return them.

Throughout the outage, Unitech provided on-site labor for apparel distribution, stocking, packaging, and transportation for laundering. Site support ensured seamless transition, with Unitech personnel handling all inventory and shipping logistics.

By choosing ProTech coveralls, Cooper eliminated heat stress issues that previously hampered personnel. ProTech’s lightweight, air-permeable fabric received positive reviews from Cooper personnel throughout the outage. ProTech coveralls also offered better protection, minimizing personnel contamination events.

The success of Cooper’s fall 2016 outage has produced actionable cost savings data made available to all members of Utilities Services Alliance (USA). USA member utilities share cost-saving measurements amongst themselves to inform efficient decision making.

Unitech offers the most affordable, comfortable and effective protective clothing and garments to nuclear facilities. The One Program includes everything facilities need: coverall and accessory use, laundering, transportation, and radwaste disposal — all rolled into one economical program cost. We will work with you to calculate the number of coveralls and accessories you need each day during your outage.

Thanks for reading UniTRACK!

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