



**GREEN, CLEAN,  
SUSTAINABLE**

# UniTRACK

**NUCLEAR SERVICES NEWS**

UniTech Services Group, Inc. • Volume 11 Issue 2 • Fall 2014

## Trailers Storing Equipment On-Site Pose Regulatory Issues for Nuclear Plants

*UniTech Monitoring, Decontamination and Management Provides Cost-Effective Response*



Trailers on a nuclear facility's site – typically filled with tools, equipment and “who knows what” from past outages – were once a problem that could be postponed until another day.

No more. In the wake of the natural and plant disaster at Fukushima, and the resulting increased focus on preparedness for the extraordinary, our customers are reporting new urgency to properly and promptly clear all legacy trailers and their contents off the premises. Of course, this has historically been easier said than done. The contents of any specific trailer may or may not 1) have been inventoried (often not, since this demands scarce worker time during or after an outage); 2) include reusable and potentially valuable items and; 3) contain unidentified contaminated materials.

Recent guidelines from INPO and the NRC set high standards for management of materials stored on-site. An excerpt from INPO's January 2011 *Guidelines for Radiological Protection at Nuclear Power Stations* sets the tone: “Decontaminate items with removable contamination prior to storage or reuse, whenever practical. Maintain a well-supplied tool room designated for use in the RCA, to prevent clean tools from being brought in and out of the RCA. Periodically, perform random radiological surveys of tools stored in the RCA to ensure that station contamination limits are not being exceeded.”

Likewise, NRC's Inspection Manual (Inspection Procedure 84900) states that facilities storing low-level radioactive waste (LLRW) must not develop an “out-of-sight, out-of-mind” attitude,” and defines NRC's role in assuring this doesn't happen: “This will best be done by examining the licensee's record to ensure that the required surveys, inspections and accountability checks are being done and then following up with a physical examination of the storage area and waste containers/packages.”

UniTech is working with customers to provide a smart, customized response to a problem that can now make the difference between top-quartile or less desirable ratings for plants.

Many of our customers know that UniTech's custom monitoring solutions assure consistent, reliable and repeatable monitoring results. UniTech

*UniTech provides a smart, customized response to the trailer storage problem. It can make the difference between top-quartile or less desirable ratings for plants.*

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## UniTech Helps Davis-Besse Exceed Goals During Outage, Steam Generator Upgrade

UniTech recently finished work on a historic project in Ohio at the Davis-Besse Nuclear Power Station.

The station, located about 25 miles outside of Toledo, enlisted UniTech's help to save money and provide key on-site support during its recent four-month outage. During this time, Davis-Besse upgraded its two steam generators and replaced two of its four reactor coolant pump motors. The project employed 3,000 outside contractors and cost more than \$600 million.



UniTech's role during the project included providing launderable protective clothing and laundry processing, on-site labor support and just-in-time inventory supply. UniTech provided 14 workers for the majority of the outage. In published materials, Davis-Besse called UniTech's work “a great added-value investment.” UniTech helped Davis-Besse finish the project about \$400,000 under budget (in fact, Davis-Besse saved about \$1 million compared to the use of a disposable clothing program).

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## Protecting Workers with the Newest and Best Products

### New 3M™ Versaflo™ TM-600 Powered Air Purifying Respirator:

Designed to perform flawlessly even with heavy use and all-day wear.

System features multiple airflow rates for user comfort; ergonomic design for comfortable, close fit and reduced heat build-up; lithium battery for up to eight hours of continuous use; and system configurations to meet every need. Workers will appreciate the lightweight, user-friendly design with intuitive color interactive touch points plus visual, vibratory and audible low-flow indicators. Easy-to-clean TR-600 even meets IP53 rating while in use in decontamination shower. Pre-calibration makes TR-600 ready to use directly out of the box. UniTech is the exclusive nuclear industry distributor for 3M.



### Best-yet hood for ProTech Plus® Coverall System:

No more Velcro! UniTech's newest hood is now available. The new hood features a microfiber sweatband and rear vent to alleviate heat stress. Bringing comfort and protection together means happier and more productive employees.



### Fire and Ice CoolTech Scrubs:

Fire and Ice CoolTech Scrubs offer a fabric finish with adaptive properties. In warm environments, Fire and Ice moves perspiration rapidly to provide a cooling effect. In cooler



environments, perspiration moves slower for a warming effect. Building on CoolTech's comfort and moisture-wicking benefits, Fire and Ice improves thermal regulation, contains anti-static thread (which also eliminates radon build-up) and stays dryer for longer periods of time. ■■

## The Greening of the Future Sustainability Becomes Financially Prudent

From Walmart to Coca Cola, some surprising names are turning up on the list of companies that are putting action behind their stated policies of environmental stewardship. In the nuclear energy industry, it is increasingly apparent that public and governmental concern about carbon emissions and incipient climate change present an opportunity to shine. Highlighting and educating the public about nuclear energy's "clean" features has become an unexpected positive opportunity for nuclear power's future prospects.

A brief scan of recent news pulls up the following:

- Influential business leaders including Microsoft's Bill Gates; Virgin's Richard Branson; entrepreneur Paul Allen; and a growing number of environmental activists have become vocal advocates for nuclear as an environmentally and economically sound energy generation method.
- Popular mass media features such as the excellent *Pandora's Promise* and The History Channel's *101 Inventions That Changed The World* highlight nuclear as an important component of an efficient and low-carbon energy future.
- Innovative reactor designs such as Georgia Power's Vogtle Plant are generating press as the "new generation" of opportunity. Its parent, Southern Company, has announced plans to build up to six additional nuclear reactors with the same Westinghouse AP1000 design as Vogtle.
- Industry advocacy groups including the Nuclear Energy Institute, World Nuclear Association and others have seized on the "clean nuclear" story to showcase low carbon emissions, safety, efficiency, reliability, and high energy output.



For those of us in the trenches, an additional focus has emerged. How can we optimize our own operations, managing costs and workplace needs while improving environmental results? As a nuclear health services partner to facilities worldwide, UniTech continually hones its offerings to anticipate and respond to what customers need most.

- **Nuclear protective apparel:** UniTech balances protection, comfort, cost, and quantifiable environmental benefits. ProTech Plus® with CoolTech has undergone a new, independent life cycle analysis performed by PE International. Its results ascertained that UniTech's reusable garments have markedly lower environmental impact in all categories measured, with the most significant (five-fold or more) differences being in global warming potential, smog and primary energy demand.

Launderable garments' environmental benefits combined with their superior protection, comfort and lowest cost (50-plus percent savings over disposables) make launderable protective clothing the sensible choice for our customers. To respond to any labor time requirement concerns, UniTech offers onsite clothing management, which has the added benefit of freeing up decon staff to work on plant-critical tasks.

- **Tool and equipment monitoring and decontamination:** Customers need to minimize the costs, space use, waste potential, and carbon footprint that accumulating tools and equipment can cause. What's more, the difference between accumulating contaminated tools and equipment on your site versus using UniTech's services can also make the difference between top-quartile or less desirable regulatory ratings. (See lead article, page 1.)

This is a no-compromise issue. Therefore, UniTech designs, builds and uses custom monitoring solutions to ensure customers get consistent, reliable and repeatable monitoring results. UniTech gets trailers off customer sites, and expertly monitors, stores and manages scaffolding, pipes, tools, FRAC tanks, fork and scissor lifts, ladders, and more.

At UniTech, we know that the best and most prosperous future is green. Rewards will accrue for facilities whose actions align with their stated goals for reduced carbon footprint and waste minimization. It's a win-win. ■■

## Education and Benchmarking in Florida Actionable Knowledge at 2014 R<sup>3</sup> Conference

Thanks to the contributions of our customers and partners, UniTech's third R<sup>3</sup> (Reduce, Reuse, Recycle) Workshop was a powerful learning experience. At July's conference in Fort Lauderdale, key themes emerged throughout:



- Continuous improvement has become an industry imperative
- Facilities are closely scrutinizing the full life-cycle impacts (not just the up-front costs) of equipment, apparel and processes
- Sustainability must save money and time or reduce negative consequences
- Facilities are making steady progress in managing contamination (from equipment to apparel to personnel) and continue to innovate

Peer-led sessions brought a world of best practices into the room. *Decommissioning of Nuclear Power Plants at EON in Germany*, *Ten Years of Savings and Waste Avoidance via ProTech Anti-Cs at OPG Pickering* and a customer panel, *Managing Alpha Contamination Challenges*, provided actionable knowledge. Participants learned about new safety offerings and workplace processes during *New Products in Heat Stress Reduction and Change Management for Implementing for Work Gloves and Wickable Scrubs*. Attendees talked about chemistry (*R&D Chemistry Improves Decontamination Factors*) and security (*Cradle to Grave Accountability Using RFID Technology*). These and all our discussions allowed 70-plus participants to return to their workplaces with new practical knowledge. ■■

## Los Alamos Renews Five-year Agreement with UniTech

UniTech recently signed a new five-year contract with Los Alamos National Laboratories (LANL).



LANL began working with UniTech in 1961, and the contract extends the partnership well beyond 50 years. The laboratory, located in New Mexico, works under the Department of Energy and is responsible for national security, science, energy, and environmental management. By 1971, UniTech processed more than 500,000 pounds of laundry per year for LANL. In 2013, UniTech processed hundreds of thousands of radiological protective clothing items for the laboratory. The new contract will provide LANL with UniTech's latest innovations such as CoolTech scrubs, CoolVests, GripTech gloves, and Microfiber Cleaning System.

LANL maintains the safety, security and reliability of the nation's nuclear deterrent as well as nuclear nonproliferation and border security, energy and infrastructure security, and countermeasures to nuclear and biological terrorist threats. ■■

## UniTech Will Provide Magnox with Laundry and Decontamination Services for Multiple UK Plants

Magnox, the company responsible for managing operations at ten UK nuclear power stations, has signed a \$62 million contract for laundry and decontamination services. The seven-year contract with



UniTech Services Group and Berendsen UK Ltd includes laundering of contaminated and non-contaminated clothing and respirators, decontamination of scaffolding and other materials and lease and laundry of personal protective equipment. The contract supports Magnox's commitment to reusing equipment and reducing the amount of waste sent for disposal as contaminated or low level radioactive waste.

Magnox requires laundry or decontamination for approximately five million items annually. Bringing this work under one long-term contract will deliver significant savings and a stable supply chain platform. Steve Watson, Magnox procurement manager, said, "This is the first time the nuclear industry has grouped this type of work together in this way. There are lots of synergies in the areas of work and, by combining them under a single contract, we have been able to go to the market and secure diversification of the supply chain and increased value for our customer - the Nuclear Decommissioning Authority (NDA) - and ultimately the UK taxpayer."

The contract will be placed as part of the NDA's collaborative procurement program and the services will be available to other organizations in the NDA estate. Ron Gorham, Head of Supply Chain Optimization at the Nuclear Decommissioning Authority, added, "This contract is great news for Magnox and the wider nuclear estate. The supply chain is critical to the NDA delivering its program and these two suppliers offer a great deal of innovation and expertise." ■■

### Words of Wisdom

“ Nuclear is one of the directions that we should innovate in. ”

– Bill Gates, American business magnate, philanthropist, investor

#### Upcoming Conferences

- Dec 9-11: Nuclear Power International/Orlando, FL
- Jan 12-14: EPRI (ISOE) ALARA/ Ft. Lauderdale, FL
- Jan 15-16: NRC Region 3&4 RPM Meeting/ Ft. Lauderdale, FL
- Jan 19-22: PWR/ALARA Conference/St. Pete Beach, FL
- Jan 22-23: Region I&II RPM Meeting/Key West, FL
- Jan 26-28: USA Winter Meeting/Sonoma, CA
- Mar 15-19: Waste Management/Phoenix, AZ
- June 22-24: PWR ALARA/Seattle, WA
- Aug 9-12: Utility Working Conference/Hollywood, FL

#### Recent Contract Highlights

- NextEra Energy, Seabrook: Mobile Safety Store Items
- Exelon, Peach Bottom: UniStock Dispensers
- Battelle: New Laundry Processing Contract
- Areva NP: GaiterTrek Rubber Shoes, Laundry Bags, Surgeon Caps
- Global Nuclear Fuels: CoolTech Scrubs, Hoods
- Duke Energy, Catawba: New Respirator Contract
- Areva: 3M Versaflo PAPRs & Accessories
- Nuclear Fuel Service: UniTrek Rubber Shoes
- Honda R&D America: RF Gloves, Hoods & Socks
- Sistemas De Ingenieria: UniTrek Rubber Shoes & Gloves

- Los Alamos National Labs: New 5 Year Contract for Laundry Services
- Magnox (UK): 7 Year Contact Laundry & TMD Services
- West Valley: UniTrek Rubber Shoes, ProTech Coveralls
- NextEra Energy, Duane Arnold: CoolTech Scrubs, Lanyards
- Utility Services Alliance (USA): Embroidered Shirts, Jackets, Caps
- Dominion, Millstone: Laundry Carts
- NRF: New Laundry Contract
- Raytheon Company: TOW Missile Cover Bags

## Staff Updates



**Shannon Fitzgerald** was recently promoted to Associate Technical Accounts Manager for UniTech's Morris, IL plant. In his current role, Fitzgerald prepares contracts, works on direct sales, performs competitive analysis, as well as a variety of other customer-focused activities. He previously worked for more than three years as a Site Coordinator for UniTech.

## Kent Anderson Receives Silver Certificate from ANS



The American Nuclear Society (ANS) recently recognized Kent Anderson, UniTech Director of Canadian Operations, for his 25 years of membership and service to the organization. He began his membership in the American Nuclear Society in 1989, after

serving in the United States Navy and in various nuclear engineering capacities.

Anderson began working for UniTech in 1989 at its Morris, Illinois plant. Before becoming Director of Canadian Operations, Anderson served as Corporate Health Physicist and Manager, Technical Accounts.

The American Nuclear Society is a non-profit, international, scientific, and educational organization. It was established to unify the professional activities within the diverse fields of nuclear science and technology. ■■

## Thanks for reading UniTRACK!

Visit [www.UniTechUS.com](http://www.UniTechUS.com) for a free Lip Balm. Enter code: BALM



Certificate Number 968  
ISO 9001, ISO 14001



UniTech Services Group is a subsidiary of UniFirst Corporation.



## Trailers Storing Equipment On-Site Pose Regulatory Issues

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regularly monitors trailer contents including scaffolding, pipes, tools, FRAC tanks, fork and scissor lifts, ladders, and much more, using processes that can't be duplicated with handheld monitoring equipment. We provide transportation, storage and comprehensive management for tools and equipment.

According to Director of Sales and Marketing Gregg Johnstone, "We can handle trailer contents to meet customers' different objectives. We can remove trailers and contents, monitor everything, decontaminate as needed, and properly dispose of used equipment. Or, instead of disposal, we can inventory, store and return items to customers on a just-in-time basis."

What's newest in UniTech's program is the availability of user-friendly database management for customers who may want to reuse various items. To accomplish this, UniTech will photograph, log and maintain a database of the tools and equipment we store for a customer. When the next outage demands any of these tools or equipment, the customer simply goes to the database and clicks the items it wants returned to its facility.

Integral to UniTech's *Green, Clean, Sustainable* mission is the fact that we want our customers to receive excellent regulatory ratings. "We'll continue to customize our tool and equipment monitoring, decontamination and management services to make sure that our customers have a solution, rather than a problem, on their hands," adds Johnstone. ■■

## UniTech Helps Davis-Besse Exceed Goals During Outage

(continued from page 1)

UniTech has worked with Davis-Besse many times in the station's 40-year history, and this was one of their most significant partnerships yet. The generators, each weighing about 500 tons, required a lengthy, costly effort in which cost savings and efficiency were paramount. UniTech also helped the station surpass its goal of 56 PCEs or fewer. Only 28 PCEs were recorded during the outage and none were considered high radiation events.

"I think we did an outstanding job for them," Jeff Wilson, UniTech Technical Accounts Manager, said. "We brought expertise, efficiency and cost savings on-site to great effect."

Davis-Besse used UniTech because of the cost savings they brought, according to Mark Travis, Davis-Besse Radiation Protection Superintendent. "All the way around, we were satisfied," Travis said. "UniTech was very efficient."

Davis-Besse sits on Lake Erie and employs more than 700 workers. The station is commissioned through 2017 and the NRC is now considering a 20-year license extension. ■■

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