



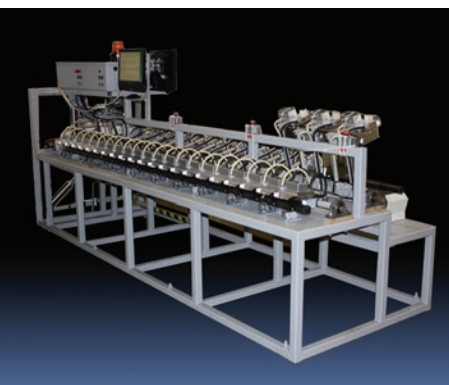
**GREEN, CLEAN,
SUSTAINABLE**

UniTRACK

NUCLEAR SERVICES NEWS

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Radiological Contamination Monitoring *New Automation Methods and Service Commitment Combined*



As UniTech continues to develop new and efficient ways to meet customers' service requirements, one area of focus is enhancing best practices in meeting customers' monitoring needs.

monitoring processes for flat materials such as wood, metal, drywall, planks, and more. We also automate monitoring for cylindrical materials including pipe, scaffolding, cable, wire, and respirator cartridges.

Automated surveys can work well with some surface contaminated items. When hand surveying, human performance factors present challenges even with relatively simple (flat) geometries.

The benefits of taking new approaches to automated monitoring are many:

- Increased productivity
- Improved performance
- Constant surface to detector distance
- Constant survey (scanning) speed
- Controlled survey coverage/detector overlap
- Eliminates human variability and error

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Why Do We Survey Equipment and Materials?

It's green, it's sustainable and it saves our customers money. Surveying is the first step to allow us to identify loose and fixed radioactivity in materials. Decontamination and free release saves on disposal or storage costs.

There is an increasing demand to monitor tools, equipment, apparel, accessories, and other items for contamination after use and prior to free release or return to the customer. These services must be handled with the ultimate concern for accuracy, and oftentimes are both labor-intensive and time-consuming.

The Promise of Automation

UniTech continually explores effective new approaches to monitoring. One that shows great promise for many processes is automating our radiological monitoring of items. We use automated

UniTech Gets Used Frac Tanks Off Your Property: Surveyed, Cleaned and Returned to Supplier

Frac tanks are an excellent option to store liquids that a nuclear facility has accumulated. However, these tanks – typically leased – tend to become problematic once they've been used. UniTech has noted that customers – for lack of better options – often end up with tanks onsite long after they have served their useful purpose, which means that the nuclear facility is continuing to lease unneeded tanks, month after month.



The problem? A frac tank cannot be sent back to the company that provided it unless it has been completely monitored, decontaminated and certified for free release.

To get used frac tanks off the customer's property and off its list of action items, UniTech has expanded its decontamination services. Because the used frac tanks often have been employed to store pumped environmental wells that may have low levels of contamination, appropriate remediation is required. UniTech takes the frac tank offsite to one of its decontamination facilities, where professionals comprehensively monitor every section for loose or fixed contamination and then perform decontamination with high-pressure water lasers where necessary. UniTech then certifies the tank for free release.

To learn more, please contact your UniTech account representative or call our corporate office. ■■



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Safety for Every Situation: New Products



3M™ Versaflo™ Respirator Systems: Upgrade to 3M's comfortable, comprehensive approach to worker protection. Each respirator system has three easy-to-select modules – headgear, breathing tubes and air

sources – that can be combined into dozens of system configurations. Versaflo can be configured to provide respiratory, head, eye and face, and hearing protection. Features include two-position adjustable airflow to distribute air where the user wants, multiple size adjustment options and easily removable parts for cleaning and maintenance.

Launderable Splash Apron: Typically, garments that protect well from water splashes do not breathe well and can cause workers to get hot and uncomfortable, potentially even leading to heat stress. UniTech's new Splash Protection Apron is constructed of a water-resistant fabric in the front and breathable poly cotton fabric in the back for improved comfort while providing splash protection in the front of the garment.



Improved Launderable Air Fed Suit: UniVent Central eliminates the need for a "backpack!" UniTech's ISAR launderable air fed suit uses the customer's own central air supply system. Our launderable suit has plastic hoses inside, ventilating all parts of the body (including the head and face) and features a connecting device that leads to the customer's central air supply. When the suit is laundered, air hoses are removed to prevent them from taking on contaminants. Air hoses can be replaced when needed.

Launderable Safe2Walk MF Safety Shoe: Innovation from our European operation. Safe2Walk MF features a Kevlar sole instead of a metal one, and a plastic compound toe instead of a steel toe. It provides the same protection as a metal-based safety shoe and does not set off metal detectors, is more comfortable, feels lighter when worn, and is less expensive in terms of radwaste. The launderable Safe2Walk MF shoe features an upper constructed of an artificial "leather-type" material, Loric. Fully CE certified up to Category III. ■■



Radiological Contamination Monitoring (continued from page 1)

- Reduced Minimum Detectable Activity (MDA); no surveyor efficiency factor
- Improve reproducibility and defensibility of survey results
- Data collection – computerized for permanence, ease of storage and quality
- Data processing is improved in several ways:
 - Statistical evaluation – data may be evaluated by a number of different tests
 - Count data may be evaluated by combining discrete counting intervals in different ways
 - Can evaluate combinations of detectors
 - Can attain constant background evaluations when not monitoring materials
 - Can receive early warning of instrument QC that is out of spec

Advanced Techniques and Monitoring Equipment

Personnel contamination monitors offer common boundary egress control and are relatively simple with no moving parts. For these, automation is limited to a timed count (MDA: 4 sec 95% CL, 1000 / 3200 DPM).

Laundry monitors are excellent candidates for automation. UniTech has optimized its Automated Laundry Monitors (ALMs), which transport garments and flat materials past various arrays of detectors. UniTech has pioneered systems with a cross-linked wire mesh belt to maximize coverage area and minimize dead space, has optimized the placement of detectors (allowing them to be adjusted for particular monitoring needs) and more.



UniTech has also made advances in respirator cartridge monitoring. To achieve high sensitivity, detectors were designed around the exact shape and size of the MSA cylindrical cartridge, the most commonly used cartridge in the nuclear industry. To get reliability and repeatability, the positioning of the cartridge near each of several different shape detectors is done robotically. Sorting of overlimit items into separate receptacles is done in a fully automated manner. To see it in operation visit www.UniTechUS.com/content/services/tool_and_metal_services.php.

To learn more about UniTech's innovations in pipe and scaffolding monitoring, see our summer 2011 UniTRACK online or visit our Tool and Metal Decontamination page at www.UniTechUS.com/content/services/tool_and_metal_services.php. ■■

Global Leader EDF Uses CoolTech at Its Civaux Nuclear Power Plant

EDF is a leading nuclear energy company, with positions in Europe. EDF states that it is "committed to investing in sustainable industrial growth" with one of its goals being to lead a "global nuclear revival." EDF contracted to use UniTech's popular CoolTech scrubs for its August outage at the Civaux Nuclear Power Plant in France. It selected CoolTech in large part because of the comfort these scrubs provide. Previously, Civaux workers had worn poly/cotton scrubs. CoolTech scrubs feature the type of moisture-wicking technology that keeps athletes comfortable. ■■



Decontamination Management in a Nuclear Emergency

UniTech 7th International Workshop Takes on a Tough Issue

Arnold Glasgow, American psychologist (1905-1998), said it well. "One of the true tests of leadership is the ability to recognize a problem before it becomes an emergency."

That was the mission for UniTech and conference participants at September's UniTech International Workshop in Fayence France. The theme of this year's users group was "Decontamination Management in Case of a Nuclear Emergency." How can nuclear professionals prevent the worst results of a nuclear accident from occurring? How can decontamination and containment of damage be accomplished best?



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UniTech Resources Online and Up to Date

Communication is more important and more immediate than ever and we want to make sure we provide everything you need.

Website: Our newly updated website, www.UniTechUS.com, is globally updated, with highlights including:

- An updated home page with easier access to the content you need
- ProTech One vs. Disposables Calculator, updated. Just link from the home page (look for the calculator photo at the bottom of the page)
- Google Translate tool lets you access the site in over 48 languages
- Google Site Search allows you to find the information you need faster than ever
- Expanded information on tool and metal decontamination
- A new section with video for Population Monitoring and Radiological Emergency Response (Mobile Contamination Characterization Center – MC3)



Protective Clothing and Products for the Nuclear Industry Catalog: Finally, virtually all of UniTech's proprietary product offerings in one easy reference. The PDF of this full-line catalog is available online. Just visit the home page of our new website and you will see the link in the right hand column.

Safety Products Catalog: This online catalog provides you with one-stop access to 15,000 safety products – 15,000 ways UniTech can meet your safety needs. Just visit the home page of our new website and you will see the link in the right hand column. ■■

QA Brief: Continual Improvement

UniTech's commitment to continual improvement is evident in the everyday quality improvements across our fleet.



To provide additional value to our respiratory protection services customers, UniTech is installing Thermo Fisher Small Article Monitors (SAM) at locations that provide radiological decontamination and maintenance services.

Respirators are normally monitored for beta, gamma and alpha total (loose and fixed) radioactive contamination using hand held detectors. UniTech has included an additional monitoring step using the SAM to measure fixed, loose (smearable), internal, and external radioactive contamination simultaneously.

Performing the additional monitoring step using the SAM is one more way UniTech provides the best service to our customers. ■■

Words of Wisdom

“ Innovation is the central issue in economic prosperity. ”

– Michael Porter
Bishop William Lawrence University
Professor, Harvard Business School
Business and Economics author
1947-

Upcoming Conferences

- Dec 5-8: Perma Fix/Nashville, TN
- Dec 13-15: Nuclear Power International/Las Vegas, NV
- Jan 8-11: EPRI (ISOE) ALARA/Fort Lauderdale, FL
- Jan 12-13: NRC Region 3 RPM Meeting/Fort Lauderdale, FL
- Feb 26-Mar 1: Waste Management/Phoenix, AZ
- May 7-10: Radiation Control Program/Orlando, FL
- May 13-18: IRPA Conference/Glasgow, Scotland
- June: Region 3 RPM Meeting
- July 21-26: HP Society Meeting/Sacramento, CA

Recent Contract Highlights

- Energy Northwest, Condenser Group: FR Coveralls and Accessories
- Batelle Labs: New Respirator Contract
- Florida Power & Light, Turkey Point: Scaffold Decontamination
- TVA, All Sites: Laundry and Protective Clothing Services
- DTE-Energy: Decontaminate HVAC Fans
- West Valley: Sale of ProTech & FR Coveralls and Accessories
- Exelon, Clinton: Rubber Shoe Covers, Disposable Shoe Covers
- Brookhaven National Labs: 3M HEPA Filters, Breathing Tubes, Helmets

- Callaway (Union Electric): MaxAir PAPRS and Supplies
- Washington Savannah River: CoolVests, CoolTech Scrubs
- Lovelace Laboratory: ProTech Coveralls and Accessories
- Safety & Ecology: New Laundry Processing Contract
- Energy Solutions, Zion: Coveralls and Undergarments
- Techno Science of Japan: RF Coveralls, Gloves, Hoods & Socks
- Entergy Nuclear, Vermont Yankee: Frac Tank Decon
- First Energy, Davis Besse: ProTech One Program
- AECL - Chalk River: Tritium Cartridges

UniTech Professionals Promoted to Manage Morris, IL Plant

John Mattson has been promoted to Plant Manager/ Radiation Safety Officer and Scott McCoy to Assistant Plant Manager for Morris, IL. The Morris plant is a vital UniTech facility that spearheads an array of tool and metal decontamination functions in addition to comprehensive apparel services including a busy nuclear laundry.

Mattson is responsible for management of employees, daily operations and personnel safety including implementation of radiation safety policies and procedures for Morris plant activities. He also conducts training classes in radiation protection, directs maintenance of plant equipment and supervises instrument calibration and repair. Prior to taking on this new position, Mattson was Production Supervisor and, previously, Health Physics Technician at UniTech's Springfield, Massachusetts facility. Before joining UniTech, Mattson held Engineering Laboratory Technician positions, working in nuclear vessels and facilities in the United States Navy.



As Morris Assistant Plant Manager, McCoy assists in daily operations and implementation of the radiation safety program and schedules work assignments. He reviews radiological surveys, work practices and shipment of radioactive material. Prior to taking on the position of Assistant Plant Manager, McCoy was Production Supervisor/On Site Coordinator and previously Health Physics Technician for UniTech's Macon, GA facility. Earlier, McCoy held positions of increasing responsibility in the United States Marine Corps. He graduated from Virginia Military Institute. ■■



Decontamination Management (continued from page 3)

According to conference organizer UniTech Director of European Operations Gunter Bruckner, "We were all shocked by the dreadful events in Japan this spring. The destruction of the Fukushima reactors has drawn nuclear energy back into the light of worldwide public attention. Even in countries with a traditionally positive attitude towards nuclear energy, we sense a growing skepticism." As nuclear professionals, we share a responsibility to help prevent such events and also to plan for optimal response in case a nuclear emergency does arise despite best efforts to avoid it.

The Fukushima accident became this year's driving force behind a conference dedicated to sharing knowledge and best practices – and even developing new ones. With participants from Germany, UK, France, Sweden, Switzerland, Romania, the Czech Republic, the USA, Canada, and more, the approaches to emergency preparation and management were sufficiently diverse to assure that each presentation provided value to others in the room.

Presenters including nuclear facility professionals and industry consultants discussed topics such as new 3D laser diagnostic investigation technologies, a case study of a room decontamination after a radioactive accident, external laundry service as an element of nuclear fleet management, and use of new decontamination gel DECON GEL. The group reviewed specific concepts for proactive planning and readiness to deal with the unexpected.

UniTech management values this annual opportunity to work with its key customers as well as industry experts. We look forward to announcing next year's (8th annual) international users conference. ■■



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U.S. Locations

Corporate Office

UniTech Services Group, Inc.
295 Parker Street
Springfield, MA 01151
Toll free: 800-344-3824
Tel: 413-543-6911
Fax: 413-543-6989
Email: info@UniTechUS.com
www.UniTechUS.com

Plants

Springfield, MA
Royersford, PA
Oak Ridge, TN
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Macon, GA
Morris, IL
Santa Fe, NM
Ontario, CA
Richland, WA

UT-11-008

EU Locations

Euro Nuclear Services B.V.
De Mars 11, NL-7742 PT Coevorden, NL
Tel: 011-31-524-599-699
Fax: 011-31-524-599-688
Email: ens@UniTechEU.com

UniTech Services Group, Ltd.
Unit 3 Oakwood Close
Pen-y-Fan Industrial Estate, Crumlin, Gwent
Wales NP11 3HY
Tel: 011-44-1495-240-774
Fax: 011-44-1495-240-982
Email: unitechltd@UniTechEU.com

ENS Nuklear Services, GmbH
Brookdiek 2L
D-49824 Laar, Germany
Tel: 011-49-5947-9102910
Fax: 011-49-5947-91029188
Email: ensgmbh@UniTechEU.com

UniTech Services S.A.S.
ZA la Malvesine
Parc Avenue
13720 La Bouilladisse, France
Tel: 011-33-965-012247
Fax: 011-33-442-048387
Email: jgrisot@UniTechEU.com