

# UniTRACK

NUCLEAR SERVICES NEWS

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## Exelon Generates Continuous Improvement

Exelon Generation, one of three business units at Exelon, is considered a world-class operator of nuclear power generation plants as well as a leader in wholesale power marketing, and an innovator in the fossil, hydro, wind, and solar development areas.

Exelon Nuclear operates the largest nuclear fleet in the United States, and the third largest fleet in the world. The company's ten stations, with 17 reactors, represent approximately 20 percent of the U.S. nuclear industry's power capacity.

By industry standards of performance and safety, Exelon is a leader. The company's size and scale provide significant advantages for industry leadership, process improvement and innovation. Exelon plans to continue applying the group's experience, sharing best practices, and leveraging economies of scale as it moves forward.



Exelon: efficiency and environmental protection

As part of its commitment to continuous improvement, Exelon has signed a five-year contract with UniTech. This contract includes a plan to supply all its workers with ProTech™ coveralls as well as a complement of ColorSized gloves and shoe covers. This initiative allows Exelon to meet several important goals. It will be able to provide its workers with standardized worker radiological training and consistent dress-out procedures. It will facilitate the transfer of workers between plants during outage shutdowns. Workers will

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## UniTech Protects Missiles Against Non-Ionizing Radiation



After becoming a leading PPE expert for nuclear facilities in the U.S. and Europe, UniTech is applying technical expertise to the field of protection against non-ionizing radiation. In just one year, we've become a prominent supplier of RF protective clothing for

the U.S. broadcast and wireless communications industries. UniTech RF garments provide shielding for workers in RF environments, allowing access to areas otherwise prohibited by the FCC. We rolled out a leasing program

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## Missile Protection

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for the line and have supplied garments to firms who could not otherwise afford them and would be unprotected in a live RF field.

We are now expanding our RF business within military markets. We've been working closely with the Air Warfare Division of the U.S. Navy to develop high frequency, ESD and lightning protection for the large "TOW" anti-tank missile program. With over 500,000 built, the Tube-launched, Optically-tracked, Wire-guided missile is one of the most common guided systems used by the U.S. Armed Forces.

The need for TOW protection comes from the difficulty to guarantee proper grounding procedures in a combat environment. The sophisticated electronics within the missile can be damaged from a high level of electromagnetic radiation caused by powerful antennas or from electrostatic discharge and atmospheric lightning events. The Navy asked if we could develop a cost-effective textile cover that would offer very high protection and withstand the harsh military environment.

We reviewed the technical requirements and then identified materials and construction methods that could assure good performance. After preparing prototype samples, we submitted them for comprehensive tests at the Naval Surface Warfare Center and the Army's Redstone Technical Test Center in Huntsville, AL. The covers were subject to electrostatic discharges of up to 300 KV and high power electromagnetic radiation up to 40 GHz. ESD and RF attenuation tests were also performed remotely with live missiles.

All of our samples passed the tests and met all Navy requirements. They opted for the most expensive design, and we anticipate delivering an initial order of 3,800 units. While the order is welcome and we see good re-order potential, we've already set our sights on addressing new product applications for other Navy and Army guided missile systems. ■■



## Deadly Power

### Defend Against Arc Flash Injuries

Electrical flashes can kill. If an electrical worker must operate in an energized area, it is critical to wear a flash suit with the right level of protection for the job. Today, nuclear facilities have thousands of electrical panels that need to be tested to meet NFPA 70E and OSHA requirements. To assist in the effort, UniTech now partners with industry leader Oberon to provide arc flash protection to nuclear electrical workers. Oberon developed the very first arc flash protective face shield and the first arc flash protective hood during the 1980s, and their continued leadership in the field made them the partner of choice for UniTech. We will work with you to create a purchase or lease program for flash suits in every level you need, as well as complete arc flash kits (clothing, rubber gloves, leather protectors) and arc blankets.



## Keeping Your Cool in a Hot Situation

### UniTech Becomes Exclusive Nuclear Distributor for Med-Eng

Anyone who's had to wear a traditional ice vest and coverall knows that, after 30 minutes or so, you're carrying around pounds of warm water... and getting hot and tired. Obviously, that needs to change. UniTech is working with Med-Eng, a leading researcher, designer and manufacturer of personal protective equipment, to bring the world's most advanced personal cooling garments and systems to the nuclear industry. The new systems offer ongoing cooling, comfort and unprecedented freedom of movement.

The centerpiece of the cooling system is the CardioCOOL vest, engineered to help regulate core body temperature in low to high heat threat environments. It has a patented design to evenly distribute active cooling to supplement the body's natural capabilities. The vest is worn with a ProTech cool coverall.

This coverall accommodates the use of the Med-Eng Dual-Connector, which allows the user to elect either a compact ice-based PortaPersonal Chiller that can be worn around the waist, or to a mobile, multiple-user chiller for longer active duty. This choice allows the user to select the method that combines the most convenience, freedom of movement and effective chilling for any situation. For example, the PortaCool personal chiller, worn around the waist, is an ideal solution for a user who needs to pass through an air lock. A 50-foot cord makes the multiple-user chiller a good choice for longer engagements, without unduly restricting the user's travel within the work area.

We want to provide our customers with convenient access to, and maintenance of, these cooling systems. For this reason, UniTech now sells, leases, repairs, maintains, and cleans Med-Eng systems for our customers. For more information on Med-Eng personal cooling systems, or for a copy of an independently conducted heat stress study, call your UniTech technical sales representative or toll-free at 800-344-3824. ■■



## QA Brief: UniTech Internal Quality Assurance Audits

To demonstrate compliance with our ISO 9001, 2000 quality certification, each UniTech laundry facility performs internal audits of our Quality Management System. UniTech's internal auditors receive ISO auditor training and are not directly responsible for the performance or management of the activities they audit, which helps assure complete, objective reviews.

### Thanks for the Feedback

We've completed the 2004 UniTech online customer survey, and thank all who participated. Once again, overall customer satisfaction is high, with 98% rating us good or excellent. Your suggestions for improvement are being addressed, too! ■■

“UniTech has a great ‘can do’ attitude!”

- 2004 Survey Participant

### Upcoming Conferences

- Jan. 5-7: Region 1 & 2 Meeting, South Florida\*
- Jan. 9-13: International ALARA, Ft. Lauderdale, FL\*
- Jan. 13-14: Region 3 Meeting, Ft. Lauderdale, FL\*
- Jan. 26-28: NISHA, Palacios, TX
- Feb. 27-Mar. 3: Waste Management Conference, Tucson, AZ\*

### Mobile Safety Store Tour

\*See our Mobile Safety Store at the shows asterisked above. We can also bring the Store to your site for a tour – contact your technical sales rep.

### Recent Contract Highlights

- Dominion Nuclear, Millstone Site
- Bechtel Bettis NRF
- Southern California Edison, San Onofre
- Nebraska Public Power, Cooper
- SCE&G, V.C. Summer

## Inventive Solutions

### The Latest from Our Creative Thinkers

Perhaps one of the most enjoyable aspects of our business is problem-solving. Three of our latest solutions have earned particular attention.

**Our new drying cabinets**, now sporting a U.S. patent, solved a problem faced by our Canadian customers. Canadian nuclear workers wear totally enclosed, air-fed suits. After laundering, these suits took an unacceptable 90 minutes to dry. We engineered a special drying cabinet that reduced this time to just 20 minutes.

**Our flagship garment, ProTech 2000™** (and its new version, ProTech Plus), has so many unique features, from its micro denier synthetic yarns with ultra-tight weaves to its exceptional mesh ventilation, that it is now trademarked and patented in the United States and Europe.

Our European subsidiary, ENS, has recently been awarded the exclusive rights to an EPRI-developed DFD and DFDx advanced chemical decontamination process. This process provides economical decontamination of closed loop systems with hard-to-reach internal surfaces. Download our DFDx literature at [www.unitech.ws](http://www.unitech.ws).



Top: UniTech patents and trademarks.  
Bottom: Workers load Canadian coveralls into UniTech's drying cabinet.

## Exelon

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enjoy the increased comfort possible with a lighter weight, vented garment (moving from its older garment with 7.5 oz/yd<sup>2</sup> poly/cotton to UniTech's special patented three oz/yd<sup>2</sup> nylon). The use of the ColorSized clothing system, which allows workers to rapidly identify their sizes for coveralls, gloves and shoe covers, simplifies dressdowns and thus saves time. Among its most exciting goals, Exelon wants to minimize time required for outages and aims to have the world's shortest outages. Saving even one minute per day per worker will make a difference in achieving that goal.

In addition to the clothing initiative, Exelon has also asked UniTech to provide tool, scaffolding and metal decontamination, as well as a comprehensive portable HEPA filter maintenance program.

**Thanks for reading UniTRACK!**

Visit [www.unitech.ws](http://www.unitech.ws) for a FREE NUCLEAR T-SHIRT! enter code: 1204 Clean

## UniTech U.S. Locations

Springfield, MA  
Royersford, PA  
Oak Ridge, TN  
Barnwell, SC  
Macon, GA  
Morris, IL  
Gardner, IL  
Santa Fe, NM  
Ontario, CA  
Honolulu, HI  
Richland, WA



Certificate number 968795



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Certificate number 968795

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## European Locations

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Euro Nuclear Services Ltd.  
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