



# Level A Toxic Training— A New Milestone for DOD's Only Toxic-Training Facility

*By Lieutenant Colonel Daniel S. Murray (Retired)*

*In the Cold War, Americans lived under the threat of weapons of mass destruction, but believed that deterrents made those weapons a last resort. What has changed in the 21st century is that, in the hands of terrorists, weapons of mass destruction would be a first resort—the preferred means to further their ideology of suicide and random murder. These terrible weapons are becoming easier to acquire, build, hide, and transport. Armed with a single vial of a biological agent or a single nuclear weapon, small groups of fanatics, or failing states, could gain the power to threaten great nations, threaten the world peace.*

*America, and the entire civilized world, will face this threat for decades to come. We must confront the danger with open eyes and unbending purpose. I have made clear to all the policy of this nation: America will not permit terrorists and dangerous regimes to threaten us with the world's most deadly weapons.*

*—President George W. Bush<sup>1</sup>*

The threats faced by America have changed dramatically over the past decade. On 11 September 2001, Americans saw how they could be directly and personally affected by terrorism. No longer do the borders of the United States represent security from acts of terrorism. And no one is more aware of that than our uniformed military personnel and U.S. Department of Defense (DOD) civilian leadership who have been combating and are continuing to combat this destructive and ever-changing threat.

Terrorists wreak havoc and mass destruction with simplicity and relative ease. Perhaps most frightening is the potential for terrorists to acquire, manufacture, and employ deadly chemicals or toxic industrial materials through unconventional means and to use them against unwitting and unprotected populations at home and abroad, including the combat zones of Iraq and Afghanistan.

The chemical, biological, radiological, and nuclear (CBRN) specialists of the U.S. Army Chemical Corps (along with their counterparts in the Air Force, Navy, and Marine Corps) are primarily responsible for meeting the challenges presented by this unpredictable and potentially devastating threat.

To prepare to meet the threat of terrorism, the Chemical Corps pledged to provide a Corps and an Army capable of protecting our Nation by seamlessly operating with military and civilian partners to counter the entire range of CBRN threats and effects, while simultaneously conducting operations from civil support to war.<sup>2</sup> This is the vision behind the U.S. Army Chemical, Biological, Radiological, and Nuclear School (USACBRNS) mission to train joint and international service members, develop leaders, support training in units, develop multiservice and Army doctrine, build the future CBRN force,

and function as the joint combat developer for the CBRN Defense Program.

Since late 2007, all USACBRNS professional military education (PME) course programs of instruction have been updated so that training includes hazmat certification at the technician level, with advanced individual training currently instructed at the awareness level. This initiative institutionalized the training needed to employ the toxic industrial chemical protection and detection equipment that is already in use by Soldiers in the field.

The inclusion of this certification in the programs of instruction resulted in renewed efforts to pursue the development of a Level A toxic-training capability at the Chemical Defense Training Facility (CDTF), which had been stalled by costs exceeding \$1 million. When the USACBRNS opened the First Lieutenant Joseph Terry CBRN Weapons of Mass Destruction (WMD) Response Training Facility, Level A training resources were leveraged to reduce much of the overhead costs that had defeated this initiative in the past.

Beginning in July 2007, the CDTF staff, led by Captain Rebecca Resendes, embarked on the mission of developing and implementing a Level A toxic-training program before the end of Fiscal Year 2008. Nearly simultaneously, Lieutenant Colonel Trey Johnson III, commander of the 93d Civil Support Team (CST), contacted the CDTF and volunteered to partner in the endeavor. The focus was on the development of a cost-effective capability that would support the USACBRNS PME and also serve the training needs of deployable members and units of the joint force and Army National Guard WMD CSTs to conduct full-spectrum, toxic-agent training with realistic, challenging scenarios relative to the homeland defense and War on Terrorism mission sets using Level A personal protective equipment (PPE).

The development of this training capability required a great deal of coordination. It was necessary to ensure that the CDTF Level A toxic-training plan conformed to Occupational Safety and Health Administration requirements. In addition,



**A member of the 93d CST employs an Improved Chemical-Agent Monitor and MultiRAE gas meter during site characterization of a clandestine laboratory in a lethal nerve agent environment at the CDTF.**

the appropriate PPE needed to be obtained. Since the CDTF did not own any Level A PPE, Lieutenant Colonel Johnson and Lieutenant Colonel Ken Kirkorian, the director of the USACBRNS Incident Response Training Detachment, provided a sufficient quantity of suits, air tanks and harnesses, breathing apparatuses, and radio headsets to outfit a seven-man CBRN response team.

The next step was to overcome two very critical hurdles—obtaining approval from the Department of the Army (DA) Safety Office to use a Level A protective ensemble in CDTF toxic training and developing internal doffing procedures designed to prevent critical unit equipment items worn inside the Level A ensemble from exposure to nerve agents so that those items could be released from the CDTF. Equipment that enters the CDTF toxic-training area must remain under CDTF control. When the equipment is no longer needed, it must be incinerated at a temperature of 1,000°F.

By early 2008, these two hurdles had been overcome and the development of a scenario tailored to 93d CST training objectives was underway. The pilot exercise called for the retooling of one of the CDTF clandestine laboratory bays, which included the introduction of a sophisticated, near-operational organophosphate distillation device and associated laboratory equipment.

The 93d CST training scenario focused on the exploitation of a suspected clandestine WMD production facility located within an abandoned warehouse complex at a continental United States location. The task was to execute survey entry operations in a toxic environment, and the objective was the characterization of site contamination through sampling. While the CDTF currently employs the nerve agents VX and sarin, the biological agent *Bacillus globigii*, and the radioactive isotope Cesium-137 (for a dirty-bomb scenario) in support of sensitive-site exploitation training scenarios, the exercise scenario for the 93d CST focused exclusively on the clandestine production of VX.

On 8 July 2008, Lieutenant Colonel Johnson and his staff from the 93d CST set up an external command and control cell adjacent to an “abandoned warehouse” (the CDTF), while the CBRN survey team, led by Captain Mike Rosner, underwent preentry medical screening and donned Level A PPE. The team was outfitted with a combination of commercial, off-the-shelf protective and detection equipment and standard Army tactical equipment.

The exercise began at 0400 with alert notification and deployment to the target location. The 93d CST executed three team entries. The first involved a site survey and characterization, which supported the refinement of the unit’s sampling and analytical scene processing plan. This was followed by the entry of two sample collection teams. Final mission preparation and medical screening was completed in advance of the first entry, which occurred at 0900. Subsequent entries were executed, and all sampling operations were complete at about 1400. The entry teams underwent decontamination and doffing in a clean area that was notionally downrange of the target site.



**A member of the 93d CST collects a sample of the nerve agent VX from the components of a homemade distillation device at the CDTF.**

This pilot exercise established the foundation for Level A toxic training at the USACBRNS CDTF. “We wanted to do this type of mission, validate the CDTF, and open it up to Level A—the highest level of protective gear. The success of this exercise is expected to open the door for CSTs nationally to conduct training of their survey teams here,” said Lieutenant Colonel Johnson.

The primary near-term USACBRNS objective is to integrate Level A toxic training into CBRN PME courses. This integration is expected to occur in mid-Fiscal Year 2009, but the date depends on the receipt of an organic set of Level A

equipment. In the meantime, collective training for CSTs and deployable CBRN defense units can be planned and coordinated in much the same way as the pilot exercise for the 93d CST.

This new USACBRNS capability has postured the CDTF to become the premier toxic-agent CBRN training venue in the world. It supports USACBRNS institutional training objectives and offers a modular unit, collective-training focus; full scope, multiagency collective CBRN operations; and realistic, threat-based training scenarios with unit-tailored training objectives that include chemical warfare agent and toxic industrial materials hazards.

With the expectation that our Nation will face the threat of terrorism and the use of WMD for years to come, our military and civilian leaders must continue to look for new and innovative ways to train our forces. The development of hazmat technician certification within the PME courses and Level A toxic-training opportunities at the CDTF is indicative of the USACBRNS commitment to this endeavor. 

#### **Endnotes:**

<sup>1</sup>Remarks by President George W. Bush on Weapons of Mass Destruction Proliferation, 11 February 2004.

<sup>2</sup>“Chief of Chemical,” *Army Chemical Review*, January–June 2007.

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