

Transforming Decontamination Doctrine: The Value-Added Effect of Decontamination Operations

By Mr. Mike Robinson

Transformation: The purposeful change of current procedures to meet new challenges and increase the value-added effect to the customer.

Decontamination operations have not changed much over the past 20 years. When I entered the Chemical Corps in 1981, decontamination doctrine was designed to defeat Cold War enemies. We knew the enemy would strike our forward armor and infantry forces with heavy amounts of persistent chemical agents. Its goal was to force us into mission-oriented protective posture (MOPP) 4 status so that our forces would quickly become exhausted and ineffective. We planned to counter the attack with operational and thorough decontamination operations, with the goal of getting a large number of forces back into battle quickly (especially armor). Speed in decontamination operations meant that some units would fight in MOPP 4 gear. But current global operations have changed the focus of the US military from large unit operations to small unit operations. And it is time we transform decontamination to fit the contemporary operational environment.

We should define the terms for decontamination in a simple and meaningful way:

- **Immediate Decontamination.** The definition for immediate decontamination remains the same—the first and automatic action to protect Soldiers from direct exposure to contamination. To accomplish this mission, Soldiers use their personal skin decontamination kits or hot, soapy water to reduce the hazard level. The action is performed without any command direction. Immediate decontamination is a common task. Soldiers also perform immediate decontamination on their equipment to reduce the gross level and spread of contamination. Time, mission, and supplies always effect this operation.
- **Operational Decontamination.** The definition for operational decontamination has changed and now includes two new levels of effort—*minimal* and *extensive*. Operational decontamination on equipment and vehicles is still performed at the lowest unit level. The chemical officer and NCO are now required to brief the maneuver commander on minimal and extensive operational decontamination missions. Chemical Corps units, when available, will provide assistance to complete the mission.
 - **Minimal.** Minimal operational decontamination has a measurable standard of completion—no detectable vapor hazards. This standard provides Soldiers with a definite time period in which it is safe to remove their protective masks. Removing the protective mask is a benefit to the Soldier. Doctrine may term this new level *MOPP 5*. Soldiers will still wear gloves, boots, and overgarments. Vapor hazards are continuously monitored with appropriate sensors, such as the chemical-agent monitor (CAM). To accomplish this mission, units will use all available resources to reduce the hazard levels. Field-expedient methods include hot, soapy water; steam cleaners; car wash facilities; and standard decontaminants (DF 200 or super tropical bleach [STB]). Chemical companies may be available for additional equipment assets. Hidden dangers from chemicals trapped in porous materials or in the cracks of vehicles may pose a contact hazard to Soldiers' skin. But the risk is minimized by the protective garments and is outweighed by the value-added improvement of not wearing a protective mask. Lowering MOPP levels is always based on the mission parameters and the risk to the Soldiers.
 - **Extensive.** Extensive operational decontamination also has a measurable standard of completion—no measurable vapor or contact hazards. This operation allows Soldiers to remove all protective overgarments. As the title implies, extensive decontamination requires significant manpower, time, supplies, and equipment resources. In many cases, it may be more effective to dispose of equipment as hazardous waste than to

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decontaminate it. Soldiers will enter a decontamination area with full gear, exit with nothing, and move to an issue point for new gear (including weapons). Units can speed up the decontamination and restoration process with additional support from combat support and combat service support units. Chemical companies will remain the main source of additional power-driven decontamination systems and decontaminants. Logistical units will provide the new equipment and supplies necessary to reconstitute a unit to full capability. Transportation units are required to transport equipment decontaminants to the decontamination area. Armored vehicles and heavy equipment require manpower to open hatches and remove materials not suited for decontamination. The goal is to clean every inch of surface material—inside and outside. Some sensitive equipment may need to be replaced with new or refurbished items. Monitoring for contamination will use the current generation of available sensors and detector papers. In the near future, increased sensitivity levels may require new detectors and methods of measurement not currently fielded to maneuver units. The risk following the mission is very low.

High-value or important equipment may require specialized decontamination procedures not performed at the unit level. For example, rifles and machine guns are generally made of metal but may have some plastic parts that must be removed for decontamination. If the plastic parts are removed, only the metal is decontaminated to a safe operational level. New plastic parts are replaced on the weapons before reissue. Even after decontamination, some items exposed to contamination may never leave the theater of operations or return to the home station with the unit. Some items or parts are disposed of as hazardous waste. Decontamination may render them useless or not prove to be cost-effective.

With the new approaches to extensive operational decontamination, the maneuver commander benefits from the measurable standards of cleanliness. Minimal operational decontamination frees the Soldier from the protective mask. Extensive operational decontamination provides the unit with clean equipment and vehicles but requires significant resources and time to accomplish. The issue is not, “Should we transform decontamination?” but “When do we begin the transformation process?”

NOTE: If you would like to comment on this article, its concepts, or the application process, provide an e-mail to <ATSNTD@wood.army.mil>.

Mr. Robinson is the Chief of the New Systems Division, Directorate of Training and Training Development, US Army Chemical School, Fort Leonard Wood, Missouri.