

# Decontaminate and

by CPT Kenn Riordan

The 56th Field Artillery Brigade has pioneered the employment of a decontamination device which will significantly contribute to the survivability of any unit exposed to a nuclear, biological, chemical (NBC) attack. With an investment of approximately \$27.00 per kit, a unit can develop its own decon capability.

This field expedient device, the Goldstein Apparatus, was named for its inventor, CPT Leonard Goldstein, who formulated the idea after reading about a similar Soviet apparatus. The simple, but effective, apparatus consists of the following components:

- Oil gun, pneumatic, 1-quart capacity, model 390, pistol type, NSN 4930-00-222-2975.
- Plastic or rubber tubing with an inside diameter of 1/4- to 5/16-inch and a minimum length of 30 feet.

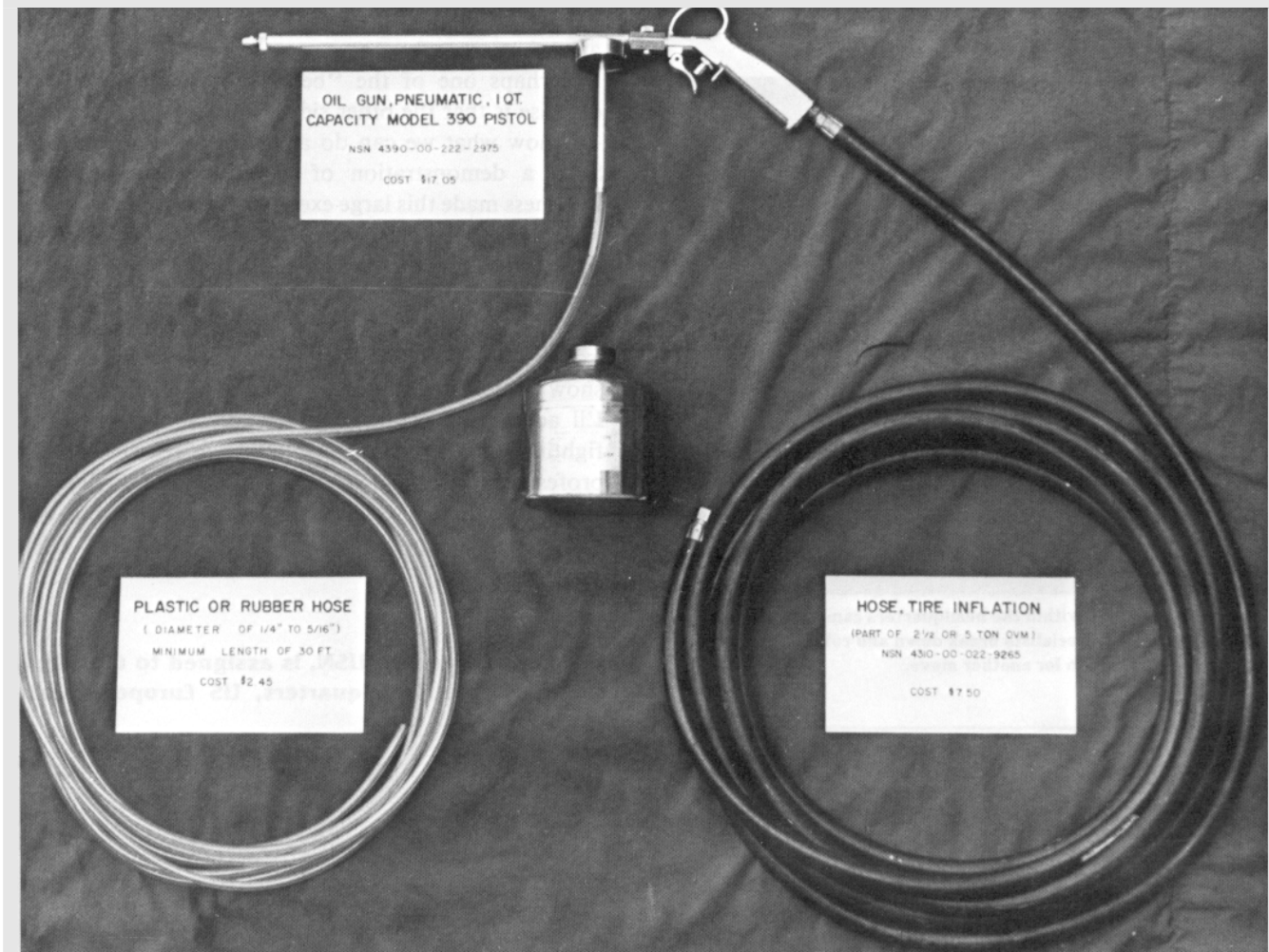
- Hose, tire inflation, 5/8-inch diameter (found in all 2½- and 5-ton basic issue items kits), NSN 4310-00-022-9625.

- The appropriate decontaminant, such as 5-gallon containers of premixed DS2, NSN 6850-00-753-4870.

One end of the tubing is inserted into a 35-gallon drum or other suitable container of decontaminant, and the other end is connected to the siphon tube of the gun which is exposed by removal of the screw-on tank. The tire inflation hose runs from the truck air system to the handle of the gun which produces a spray, creating a scrubbing action with sufficient force to penetrate small openings.

The first unit to employ the decon apparatus was the 1st Battalion, 81st Field Artillery, during their NATO

Goldstein decontamination kit.



# Survive!

Tactical Evaluation in September 1976. The contaminated victim was a Pershing battery suffering from a persistent nerve agent chemical attack. Eight devices were used to form a vehicle decon line, composed of a decontaminant spray station and a rinse station. Nearby, a personnel decon line ended in an improvised shower area.

The process was time-consuming, but results of the exercise proved encouraging. In one and a half hours, 13 vehicles and 90 personnel were decontaminated. With 32 decon devices forming four vehicle lines, the battalion can effectively decontaminate a Pershing battery of approximately 70 vehicles and 215 personnel in two hours, or mission-critical equipment and personnel in one hour.

The 56th FA Brigade SOP now tasks the battalion NBC officer and the chemical staff NCO to organize and equip personnel of headquarters and service batteries to construct the decon station in a position out of the downwind hazard fan and en route to the contaminated unit's next position. The contaminated unit's decon teams should be part of the advance party to reconnoiter the decon station position, determine the least contaminated route of march, and assist the battalion decon squad.

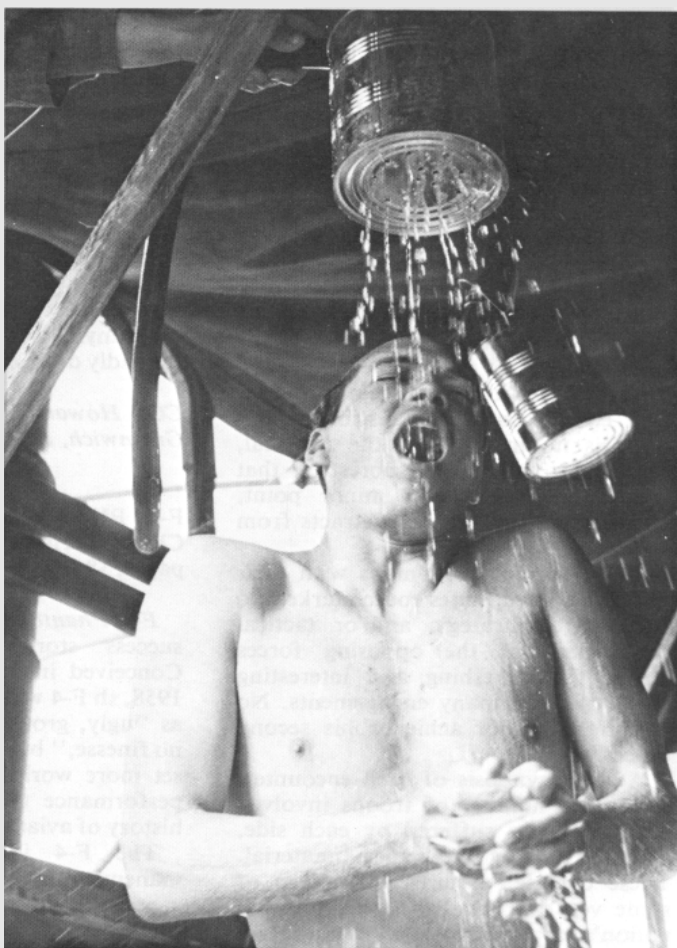
The device will be included in the next edition of TM 3-220 (Chemical, Biological, and Radiological (CBR) Decontamination) and is being considered for adoption throughout NATO.

For those units in the rear combat zone, this device provides an additional margin of safety to guarantee accomplishment of the mission. Experience has taught us that we cannot expect 100 percent decontamination of a Pershing battery in a period of time that would not disrupt accomplishment of its critical role in providing a nuclear deterrent for SACEUR and NATO. But, we have significantly enhanced our capabilities to decontaminate and our chances for survival in an NBC environment.

**When the article was written, CPT Kenn Riordan was serving as the Assistant S3 and NBC Officer with the 56th Field Artillery Brigade. He is now attending the Infantry Officer's Advanced Course, Fort Benning, GA.**



Personnel of 1st Battalion, 81st Field Artillery, decontaminating a vehicle.



The decon line ended in an improvised shower area.