Chemical Warfare Response at Unit Level

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Pennsylvania Army National Guard - 3622nd Component Repair Company FITG CBRN (Chemical Biological Radiological & Nuclear) Specialist

- United States Army Chemical Defense Training Facility
- United States Army CBRN Specialist Course
- United States Army Chemical Corp.
My goal for this meeting is to:

✓ Familiarize you with my role as a CBRN specialist at the unit level
✓ Discuss some tasks and training required at unit level
✓ Today’s Global Chemical threats
What I do as a CBRN Specialist??
As a CBRN Specialist:
I am responsible to keep the unit well trained in aspects of Chemical Warfare Agent detection, defense, and decontamination.

Choking: Phosgene, Chlorine
Nerve: Sarin, Tabun, VX (G)
Blood: Hydrogen Cyanide
Blister: Mustards (H, HD, HT, HN)
Incapacitation: BZ
## NOMENCLATURE CROSS-REFERENCE AND ABBREVIATION LIST

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBRN</td>
<td>Chemical, Biological, Radiological, Nuclear</td>
</tr>
<tr>
<td>CWA</td>
<td>Chemical Warfare Agent</td>
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<tr>
<td>G-Agent</td>
<td>Nerve Agent (Includes G and V type Agents)</td>
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<tr>
<td>H-Agent</td>
<td>Blister Agent</td>
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<tr>
<td>JCAD</td>
<td>Joint Chemical Agent Detector</td>
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<tr>
<td>TIC</td>
<td>Toxic Industrial Chemical (Chlorine)</td>
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<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>Persistent Agents</td>
<td>Agent remain for long periods</td>
</tr>
<tr>
<td>Non-Persistent Agents</td>
<td>Agent that lose effectiveness short term</td>
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</table>
CBRN Specialist or Safety Representative

✓ PPE training
✓ Respirator training with fit testing
✓ Chemical Monitoring
✓ React To chemical Attack training
✓ Thorough Decontamination
✓ Troop Decontamination
✓ Equipment Decontamination
PPE training

JSLIST (joint service lightweight integrated suit technology)

M40A1 Protective Mask
✓ Respirator training with fit testing
  (Quantitative testing)
✓ Chemical Monitoring

G, H, TIC

Scan using a zigzag pattern with arms extended

JCAD
✓ React to a chemical attack training

Individual vs. Convoy
Thorough Decontamination
(Equipment & Troop)

☑ Equipment Decontamination
Thorough Decontamination

✓ Equipment Decontamination
Thorough Decontamination

- Troop Decontamination

- Decon
- MOPP gear exchange
- Ready for mission
AAR – After Action Review

Most Important piece

What went right and what went wrong?
Training is easy...
Convincing that there is a real threat is hard.
2015 Focus

Y(E)-Pres April 22, 1915 (20,000 casualties and 5000 deaths)

Chlorine, an industrial chemical, was first introduced as a chemical weapon at Ypres in World War I with disastrous effects as gas masks were not widely available at the time. While chlorine has many industrial and public uses, as a weapon it chokes victims to death.

In the Syrian civil war, a chlorine gas attack on the outskirts of Damascus in 2013 killed hundreds and nearly drove the U.S. to launch airstrikes against the government of embattled President Bashar Assad. The U.S. and Western allies accused Assad’s government of being responsible for that attack, while Damascus blamed rebels.
New Islamic State weapon: chlorine gas

By Andrew Tilghman, Staff writer  12:51 p.m. EDT March 18, 2015

100 years later

Mounting evidence suggests Islamic militants in Iraq are weaponizing chlorine, a widely available industrial chemical that can be used as a "choking agent" on the battlefield.

Reports of chlorine found in improvised explosive devices, mortars, rockets and missiles have cropped up in recent months and suggest that the Islamic State militants are trying out new tactics, chemical weapons experts say.

IS extremists have used chlorine in the past, mainly in blunt, terrorist-style attacks. But now some experts say the group is trying to advance its technology for deploying the chemical in combat operations.

"They seem to be playing around with dissemination technology, however crude it may be," said Jean Pascal Zanders, a chemical weapons expert and former senior research fellow at the European Union's Institute for Security Studies.

"If the battles continue, one could probably see a gradual development whereby the weapon evolves from something of a stand-alone attack, perhaps with a terrorist intent, to the potential use of IEDs in a more warfare-like type of operation," Zanders said in an interview.
New Islamic State weapon: chlorine gas

In its natural form, chlorine is a yellow-green gas that is potentially fatal in high concentrations. In lower density, it can damage the lungs and cause choking as well as vomiting, nausea, dizziness and unconsciousness.

It is less lethal than some other chemical weapons such as Sarin or mustard gas, but it is also far easier to obtain because it has many legitimate industrial uses, including for sanitizing drinking water.

U.S. military officials say they have been unable to “independently verify” that Islamic State militants in Iraq are using chlorine, but they are aware of the reports.

“We know that this use of industrial chemicals is in the mix in that region in the world. … It’s not weaponized chemicals in the traditional sense. It’s almost homemade,” said Army Col. Steve Warren, a Pentagon spokesman.

There have been no reports of chlorine attacks on the roughly 2,800 U.S. troops currently deployed to Iraq, military officials say.

The latest report of a chlorine attack by the Islamic State militants, also known as ISIS or ISIL, came in mid-March when the Kurdish government in Iraq said tests results confirmed chlorine was used in a suicide truck bomb that targeted Kurdish peshmerga fighters in January.

They also said a more recent bomb attack in northern Iraq appeared to involve chlorine when several military police experienced unconsciousness and vomiting.

The Islamic State does not operate any chemical production facilities, Zanders said.

Instead, they are seizing chlorine from water treatment plants and industrial chemical facilities in the territories they control in Iraq and Syria, he said.
Iraqi Kurds claim Islamic State group used chemical weapons

By Vivian Salama, The Associated Press  2:48 p.m. EDT March 14, 2015

In this undated photo made available March 14, 2015, by the Kurdistan Region Security Council (KRSC), a piece of debris that the Kurdistan Region Security Council said is a gas canister lies at the site of a bomb attack on a road between Mosul, Iraq, and the Syrian border in northern Iraq. Kurdish authorities in Iraq said Saturday they have evidence that the Islamic State group used chlorine gas as a chemical weapon against peshmerga fighters, the latest alleged atrocity carried out by the extremist organization now under attack in Tikrit. (Photo: AP)
From the first recorded chemical warfare incident in ancient India (2000 BC), chemical warfare still remains a real threat.
Questions?