

Gwyn Winfield evaluates whether the recent use of chlorine in Iraq is the start of something bigger or a return to a beginning.

“As under a green sea, I saw him drowning”

IRAQ has seen a major use of IEDs but February and March brought a new element with the malicious use of chlorine gas in Iraq; eight incidents caused more than 500 casualties and around 20 deaths (the true figures are difficult to ascertain due to poor logging of Iraqi civilian deaths). It is not the first time chlorine has been used as a chemical warfare agent; it was one of the first to be adopted in the First World War and was used in 1915 at Langemarck against the French. As the civilians in Iraq are finding, chlorine is a particularly unpleasant chemical, burning the skin on touch and destroying tissue in the lungs so that the individual drowns in his own fluid.

It was superseded eventually with phosgene (with which it was mixed) and eventually by the 'King of the Battlefield' mustard. Chlorine, despite its effectiveness, did not lend itself well to operations; it is easily smelled, is not persistent and can be neutralised by the use of a wet cloth over the nose and mouth. Sadly, these history lessons were not known, or able to be applied by, the largely civilian Iraqi victims.

The causes of the attack are not

known; it has been suggested by Major General Michael Barbero that this was to be a punishment weapon, to be used by Sunni extremists against a recalcitrant population that would not follow the wishes of the local militia and were turning against Al Qaeda. Chlorine is certainly easy to come by in Iraq, and the

signs were there for all to see – Iraq has a number of disaffected individuals that have first-hand use of offensive chemical weapons. Surprisingly though, these individuals were not involved; what little is known about these devices is that they were rudimentary and were not deployed with any specific chemical knowledge. Tankers of chlorine were driven up to a populated area and detonated with an IED; little effort seemed to have been made to work out the best way of disseminating it – it was a statement, pure and simple.

At first there was some hope this might have been a one-off; after the first January attacks, a Coalition operation discovered a VBIED factory with vehicles rigged up with chlorine. This was

followed in March by the thwarting of an attack with a 1,000-gallon drum of chlorine and 4,000 pounds of explosive – the

driver was arrested and confessed he had been offered \$30,000 to detonate the device. In April, however, the bomber did get through and killed 11 in Ramadi, and this was followed on 15 April by the arrest of two suspects for the chlorine attacks – to date there have been no other chlorine attacks. Yet this bright prognosis was



Trying to stop the transport of Chlorine would be another step down for the average Iraqi's standard of living

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spoiled when, on 20 April, Coalition forces disrupted a terrorist cell. Among the haul in their compound were seven tanks of chlorine – clearly they are not the only masterminds. So what is the legacy?

Toxic legacy

Firstly, it is to raise the question of what is a CBRN incident? Was this an attack designed to spread a toxic industrial chemical (TIC) to cause death and sickness, or just a tinkering around the edges of an IED+? This might seem like semantics, yet it is important to understand the mindset. Were more deaths caused than by an explosion of equal payload? No. Was this a device targeted at Coalition forces, to defeat them militarily? No. This was, in essence a terror weapon aimed at a civil population. Chlorine's ineffectiveness as a CWA worked to their advantage; the stench, the quantity, the lack of persistence combined with its ubiquity to create a new device of coercion.

There has been an element of 'told you so,' from the CBRN community, as suddenly they are back in the mainstream and less of a funny aside. Suddenly, exercises have appeared using chlorine and industry has been targeted for protection and detection devices which can detect this latest threat. Much of this is a knee-jerk reaction inspired by the press and politicians; anyone that can mask and suit up in time to protect himself against VX will have little problem with chlorine, and operations in a chemical environment are largely identical once the dose rate has been calculated and the right filter selected. Unfortunately it is not only the CBRN community who has had a dose of schadenfreude; the US seems to have an inexhaustible supply of nuts who follow these incidents. After anthrax it was white powder incidents; when ricin came to the fore they all started growing castor bean plants and now... well, now they are taking their high velocity rifles to chlorine tankers in sidings. Presumably none of them has taken a note of the CAS registry number, and have instead been blazing away at everything, hoping to get 'lucky'.

The genie is out of the bottle now; thankfully the press on this has been muted and it has not had the coverage that either anthrax or ricin did, but there is a process. What was apparent in the attacks

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in Iraq was a gradual maturity of procedure – they were getting better. The one thing al Qaeda is good at is sharing information; somewhere all the lessons learned from these attacks – especially how the Coalition forces responded – has been logged and will be turned into learning modules for all the operational groups. Next time – and there will be a next time – these lessons will be put into place and these will stop being terror weapons against the population and become something else. In its current incarnation, chlorine will not be a terror weapon against the military; the levels of protection and detection are too great – though this is not to say that surprise attacks won't claim a handful of lives every time. The many private security companies, NGOs and police personnel are another matter; their protection and detection equipment is likely to be less ubiquitous, as is their training – there is a world of difference between looking tough with a rifle and knowing your NBC drills inside out. Equally, the Green Zone could suddenly become a less pleasant place to work. Walls and wire may keep out the bullets but not the gas; suddenly, downwind becomes very important – as

does Colpro. While deaths will not be significant, forcing people into PPE or making them change their working habits is an important gain – the ability to say we have not gone away focuses the mind, especially when dignitaries land and the whole place smells of a swimming pool.

The only way the situation can be rectified is by the consistent deployment of the deterrent – the reason that coalition troops were not targeted is that their defence is too good. The US has looked at trying to impound chlorine in Iraq, but have evidently deemed it impractical, so the attacks will have to be endured. Downwind modelling, Colpro and even a form of pre-wetting or aggressive water misting for critical infrastructure – chlorine being water-soluble – should show that attacks on Coalition forces will not be effective and force the enemy to go elsewhere and devise new weapons. The threat to coalition forces from chlorine will diminish, yet the civilian threat will probably increase and this will cause problems. While the Iraqi security services are at their low ebb, Coalition forces will have to step in and offer aid to the afflicted. As is always the case, this leaves them open to secondary devices and there will have to be a major risk management effort. Quite what will be the end point for the civilians is unknown; sectarian hatred is at such a level that nothing seems to sicken them and reaching the nadir always seems out of grasp. One thing is certain: this is the threat that military and civilian forces have been preparing for, and the lessons from Iraq could well be visiting a city near you soon.



One results of the C-IEDs is an increase in TIC exercises