

**The legality of the use of white
phosphorus by the United States military
during the 2004 Fallujah assaults**

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ABSTRACT

The assaults on Fallujah by the United States military in April and November 2004 involved the use of white phosphorus. White phosphorus has extremely damaging effects on the health of victims, including severe burns and irritation of the respiratory system. This article examines whether the use of white phosphorus was a violation of the Chemical Weapons Convention, Protocol III to the Convention on Conventional Weapons and international humanitarian law. It concludes that the use of white phosphorus was illegal as it could be argued to be a chemical weapon, a riot control agent, or incendiary weapon. Furthermore, the methods and means of its use in Fallujah violated the laws of war.

1.0 Introduction¹

“If we fight a war and win it with H-bombs, what history will remember is not the ideals we were fighting for but the methods we used to accomplish them.”

- Hans A. Berthe

As this quotation by Nobel Prize winner Hans A. Berthe suggests, methods and means of warfare have long lasting effects on a war's legacy. Although using certain weapons and tactics may achieve some level of military success, their use must be tempered with humanitarian principles. Throughout most of the Iraq war, the media has glossed over the impact and legality of weapons and tactics used by the Coalition forces. One issue that deserved wider public discussion is the use by US military of certain controversial weaponry during the Fallujah assaults of 2004, in particular the use of white phosphorus.

¹ I would like to express my deepest gratitude to Professor John Dugard and Lisa Tabassi for their invaluable assistance and supervision in the research and writing of this article.

Although a number of news outlets described it as a chemical weapon, little detailed discussion of its legal status was undertaken. This paper endeavours to examine whether the use of white phosphorus was a violation of international law. Part one will outline the background to the US assault in Fallujah as well as the various allegations of white phosphorus use. Part two will discuss how the alleged use fits in the legal framework banning chemical weapons use. Part three will discuss whether the use of white phosphorus could also be considered as a breach of the various rules governing the use of incendiary weapons. Regardless of its legality, the use of weapons such as white phosphorus was a flawed strategy and could only have contributed to further stiffening the resolve of those opposing the Coalition's presence in Iraq.

2.0 Background

2.1 Fallujah City

Lying approximately forty miles to the west of Baghdad, Fallujah is situated in the heart of what has been coined the 'Sunni Triangle', a triangular shaped area lying to the north and west of Baghdad. The Triangle stretches from Baghdad in the east, to Tikrit² to the north, and Ramadi in the west. Contained within this Triangle are the towns of Samara and Fallujah.³ As its name suggests, it is inhabited predominantly by Sunni Muslims, the ethnic group of former Iraqi President Saddam Hussein. This area has witnessed widespread violence since the 2003 invasion due to high insurgent activity. During 2003

² Tikrit, the home-town of Saddam Hussein, is infamous for being a stronghold of regime die-hards, powerful tribes and senior Baath Party members. See <http://www.csmonitor.com/2003/0924/p01s02-woiq.html>

³ *Iraq – A Success at Last*, The Economist, 7th October 2004.

and 2004, it was described as Iraq's "most volatile region, and a hotbed for opposition against the US led occupation"⁴, as well as being a "dangerous ground for US soldiers".⁵

Fallujah's lawlessness became evident when on the 31 March 2004, four US private military contractors from the security firm *Blackwater USA* were dragged from their vehicles, their bodies mutilated, set on fire and hung from a bridge. Within days, beginning on 4 April 2004, *Operation Vigilant Resolve* was launched, featuring 1200 US Marines, backed by two Iraqi Security Force Battalions. Over the course of a week, this operation swept through a number of cities in the region aiming to quell the violence and regain control. Particular focus was on ridding Fallujah of the insurgents. With the city sealed, and a night-time curfew imposed, the coalition forces met fierce urban resistance, requiring dangerous house-to-house searches.⁶ In total, approximately 600 Iraqis were reported dead⁷ and high a number of high value targets were apprehended.⁸ By April 9,

⁴ *Iraq's 'Sunni Triangle' Scene of New Deadly Attacks*, CNN, 22 January 2004,

<http://edition.cnn.com/2004/WORLD/meast/01/22/sprj.nirq.main/> (accessed 12 June 2004)

⁵ *Sunni Triangle Dangerous Ground for U.S. Soldiers*, CBC News, 19 September 2003,

http://www.cbc.ca/story/news/national/2003/09/19/sunni_triangle030919.html (accessed 12 June 2006).

⁶ *Marines Take Fight to the Street*, Marine Corps News, 12 April 2004,

<http://www.globalsecurity.org/military/library/news/2004/04/mil-040412-mcn01.htm> (accessed 12 June 2006)

⁷ *US Seeks End to Falluja Bloodshed*, BBC News, 12 April 2004,

http://news.bbc.co.uk/1/hi/world/middle_east/3618559.stm (accessed 12 June 2006)

⁸ US Central Command News Release, 7 April 2004,

<http://www.globalsecurity.org/military/library/news/2004/04/mil-040407-centcom02.htm> (accessed 12 June 2006)

the US announced a unilateral suspension of fighting. By the end of April, after intense international pressure to end the siege,⁹ an agreement was reached whereby the local population would keep the resistance fighters out of the city. The ‘Fallujah Protection Army’ was established to maintain peace, led by former Revolutionary Guard brigade commander and current Iraqi force General Jasim Mohamed Saleh. The force was approximately 1100 strong and would operate independently of the US military.¹⁰ Despite a ceasefire being announced in May, skirmishes continued for the following months.

In October 2004, the violence in Fallujah re-escalated, and it became clear that the city had fallen back into the hands of the insurgency. In response, on 8 November 2004, *Operation al-Fajr* (‘Dawn’ in Arabic) was executed.¹¹ This involved a force of 10,000 – 12,000 US Marines, supported by the Iraqi troops.¹² The US and the Iraqi Interim Government authorized the assault.¹³ Iraqi Prime Minister Allawi gave his authorization largely as a result of the failed negotiations between the Government and the Fallujah representatives to eject the foreign fighters suspected to be in the city. One such insurgent

⁹ *US Marines Begin Falluja Pullout*, The Independent, 12 June 2006.

¹⁰ *Id.*

¹¹ Originally known as ‘Operation Phantom Fury’.

¹² Approximately 2,000 Iraqi troops were expected, however US General George Casey acknowledged that an unknown number did not show up. *See: Operation al-Fajr*, GlobalSecurity.org, <http://www.globalsecurity.org/military/ops/oif-phantom-fury-fallujah.htm> (accessed 12 June 2006).

¹³ *Fallujah Operations Update*, US Central Command News Release, 9 November 2004, <http://www.centcom.mil> (accessed 12 June 2006).

believed to have been present was the infamous Al-Qaeda leader in Iraq, Abu Musab al-Zarqawi. In the lead up to the assault, the city was encircled by US forces who warned the Fallujah residents of the impending attack, strongly urging them to leave. US officials believe that of the 300,000 citizens, 70 – 90% had fled, seeking refuge in neighbouring towns, and that a force of 2,000 – 3,000 insurgents remained behind.¹⁴ It was later acknowledged by US General George Casey that al-Zarqawi had fled by 9 November.¹⁵ In the first stage of the assault, the Marines took control of strategic bridges and a hospital on the western side of the town. By 15 November, the town was largely under US control except for the southern Shuhada District in which fierce fighting remained. Upon the US military securing a part of the city, it was turned over to Iraqi forces. During the assault, important discoveries were made, such as large arms caches, and heavily fortified underground bunkers connected through a network of tunnels. During the assault, which lasted until late January 2005, the US forces had suffered 71 fatalities¹⁶ and 275 injuries.¹⁷ Between 1,200 – 1,600 insurgents were reported killed, as well as 2,000 civilians.¹⁸

It was during this campaign that the allegations of white phosphorus use by coalition forces emerged.

¹⁴ GlobalSecurity.org, note 11, *supra*.

¹⁵ *Id.*

¹⁶ *US Death Toll in Fallujah Reaches 71*, ABC News Online, 2 December 2004, <http://www.abc.net.au/news/newsitems/200412/s1256321.htm> (accessed 12 June 2006).

¹⁷ GlobalSecurity.org, note 11, *supra*.

¹⁸ ABC News Online, note 15, *supra*.

2.2 Allegations

The following is a summary of the various accounts regarding white phosphorus use by US marines.

The first report was written by embedded journalist Darrin Mortenson, published on 10 April 2004, in the *North County Times* regarding *Operation Vigilant Resolve* of April 2004. He wrote:

“Bogert is a mortar team leader who directed his men to fire round after round of high explosives and white phosphorus charges into the city Friday and Saturday, never knowing what the targets were or what damage the resulting explosions caused.”¹⁹

Then, under a sub-heading entitled “Shake ‘n’ bake” he wrote:

“‘Gun up!’ Milikin yelled when they finished a few seconds later, grabbing a white phosphorus round from a nearby ammo can and holding it over the tube.

‘Fire!’ Bogert yelled, as Milikin dropped it.

¹⁹ Darrin Mortenson, *Violence subsides for Marines in Fallujah*, *North County Times*, 10 April 2004.

‘The boom kicked dust around the put as they ran through the drill again and again, sending a mixture of burning white phosphorus and high explosives they call ‘shake ‘n’ bake’ into a cluster of buildings where insurgents have been spotted all week.

They say they have never seen what they’ve hit, nor did they talk about it as they dusted off their breakfast and continued their hilarious routine of personal insults and name-calling.”²⁰

In an email correspondence with *The Independent*, the same reporter confirmed:

“During the fight I was describing in my article, WP mortar rounds were used to create a fire in a palm grove and a cluster of concrete buildings that were used as cover by Iraqi snipers and teams that fired heavy machine guns at US choppers.”²¹

A further account of the Fallujah assault was detailed in a March-April 2005 journal, *Field Artillery*. This report, written not by journalists but by three US artillerymen, discussed their view of the operation from a tactical perspective. Under the subheading ‘Munitions’ were written the following passages:

²⁰ *Id.*

²¹ Andrew Buncombe and Solomon Hughes, *The Fog of War: White Phosphorus, Fallujah and Some Burning Questions*, *The Independent*, 15 November 2005.

“WP proved to be an effective and versatile munition. We used it for screening missions at two breeches and, later in the fight, as a potent psychological weapon against the insurgents in trench lines and spider holes when we could not get effects on them with [high explosive rounds]. We fired ‘shake and bake’ missions at the insurgents, using WP to flush them out and [high explosive rounds] to take them out.

[...]

We could have used [hexachloroethane zinc smoke (HC) and precision-guided munitions]. We used improved WP for screening missions when HC smoke would have been more effective and saved our WP for lethal missions.”²²

The Washington Post reported on 10 November 2004:

“Some artillery guns fired white phosphorous rounds that create a screen of fire that cannot be extinguished with water. Insurgents reported being

²² Captain James T. Cobb, First Lieutenant Christopher A. LaCour, and Sergeant First Class William H. Hight, TF 2-2 in FSE AAR: *Indirect Fires in the Battle of Fallujah*, Field Artillery, March-April 2005.

attacked with a substance that melted their skin, a reaction consistent with white phosphorous burns.”²³

In the same report, a physician at a regional hospital reported as having said the corpses of the insurgents “were burned and some corpses were melted.”²⁴

On 8 November 2005, the Italian state television network, *RAI*, aired the documentary *Fallujah: The Hidden Massacre*, by Sigfrido Ranucci, which documented the use of white phosphorus during the November 2004 Fallujah assault. In it, Mohammad Tareq, a human rights campaigner, reported that many victims suffered serious burns. He claimed the clothes of some of the victims appeared to be intact even though their bodies were badly burned. The documentary alleged that civilians, including women and children, had been killed through white phosphorus attacks. Images of such bodies were shown. Critics of this film have said that such reports are inconsistent with the use of white phosphorus as it would also have burned their clothes.²⁵ The bodies from the *RAI* film could also have had such an appearance from exposure to the elements.²⁶ As such, the evidence provided by the documentary was not entirely convincing, and consequently it will not carry much evidentiary weight in the analysis below.

²³ Jackie Spinner, Karl Vick, Omar Fekeiki, *US Forces Battle into Heart of Fallujah*, Washington Post, 10 November 2004.

²⁴ *Id.*

²⁵ Buncombe and Hughes, note 20, *supra*.

²⁶ *Id.*

In the *RAI* documentary, a former US Marine that fought in Fallujah during November 2004 commented about white phosphorus use:

“I heard the order to pay attention because they were going to use white phosphorus on Fallujah. In military jargon it’s known as Willy Pete ... Phosphorus burns bodies, in fact it melts the flesh all the way down to the bone ... I saw the burned bodies of women and children.”²⁷

An unembedded Iraqi journalist, Dahr Jamail, who had been collecting testimony from Fallujah’s refugees, had spoken to a doctor who had remained in the city to help people and who had encountered numerous reports of civilians suffering unusual burns.²⁸ A resident told the Mr. Jamail that the US had used “weird bombs that put up smoke like a mushroom cloud” and that he watched “pieces of these bombs explode into large fires that continued to burn on the skin even after people dumped water on the burns.”²⁹ The doctor said he “treated people who had their skin melted”.³⁰

The response by the US government changed as the story gathered media momentum. *The Wall Street Journal* quoted Lieutenant General Walter Buchanan III, commander of the US Central Command Air Forces, as saying that white phosphorus “is purely used as

²⁷ Sigfrido Ranucci, *Fallujah: The Hidden Massacre*, RAI Network.

²⁸ Buncombe and Hughes, note 20, *supra*.

²⁹ *Id.*

³⁰ *Id.*

a marking round, not a weapon.”³¹ Similar statements were issued from the US Embassy in Rome, which said: “To maintain that US forces have been using [white phosphorus] against human targets ... is simply mistaken”, and from the US Ambassador in London, Robert Tuttle who wrote to *The Independent* claiming white phosphorus was only used as an obscurant or else for marking targets.³² He further stated, “US forces participating in *Operation Iraqi Freedom* continue to use appropriate, lawful and conventional weapons against legitimate targets. US forces do not use napalm or phosphorus as weapons”.³³ The US State Department’s Counter Misinformation Office provided a similar position, stating that the use of phosphorus shells is not outlawed and that “US forces have used them very sparingly in Fallujah, for illuminating purposes. They were fired into the air to illuminate enemy positions at night, not at enemy fighters.”³⁴ However, on 10 November 2005, the official US position was revised with an acknowledgement that it had previously been incorrect. It stated that,

“White Phosphorus shells, which produce smoke, were used in Fallujah not for illuminating but for screening purposes, i.e., obscuring troop movements and according to an article, “The Fight for Fallujah”, in the March-April 2005 issue of *Field Artillery* magazine, “as a potent psychological weapon

³¹ Darrin Mortenson, *Official Waffling on White Phosphorus Fuels Debate Abroad*, North Country Times, November 22 2005.

³² Buncombe and Hughes, note 20, *supra*.

³³ Buncombe and Hughes, note 20, *supra*.

³⁴ US Department of State, *Did the U.S. Use “Illegal” Weapons in Fallujah?*

http://usinfo.state.gov/media/Archive_Index/Illegal_Weapons_in_Fallujah.html (accessed 12 June 2006).

against the insurgents in trench lines and spider holes ...” The article states that U.S. forces used white phosphorus rounds to flush out enemy fighters so that they could then be killed with high explosive rounds.”³⁵

On 15 November 2005 the US Department of Defence Spokesperson, Lieutenant-Colonel Barry Venable confirmed to the *BBC Radio 4 PM* programme that white phosphorus had indeed been used in Fallujah, however he denied that it was a chemical weapon.³⁶

Lieutenant-Colonel Venable acknowledged that US forces could use white phosphorus in order to flush out enemy troops from covered positions and that the US considers it to be “an incendiary weapon [that] may be used against enemy combatants.”³⁷

"We use them primarily as obscurants, for smokescreens or target marking in some cases. However it is an incendiary weapon and may be used against enemy combatants."³⁸

In response to the question whether it was used as an offensive weapon during the Fallujah assault, he confirmed: "Yes, it was used as an incendiary weapon against enemy combatants".³⁹ He continued,

³⁵ US Department of State, note 33, *supra*.

³⁶ *US Used White Phosphorus in Fallujah*, BBC News, 16 November 2006, http://news.bbc.co.uk/1/hi/world/middle_east/4440664.stm (accessed 12 June 2006)

³⁷ *Id.*

³⁸ *US Forces used 'chemical weapon' in Iraq*, The Independent, 16 November 2005.

³⁹ *Id.*

"When you have enemy forces that are in covered positions that your high explosive artillery rounds are not having an impact on and you wish to get them out of those positions, one technique is to fire a white phosphorus round into the position because the combined effects of the fire and smoke - and in some case the terror brought about the explosion on the ground - will drive them out of the holes so that you can kill them with high explosives".⁴⁰

In a report on 22 November 2005 in the *North County Times*, Colonel Dave Lapan, top spokesman for the US Marine force in Iraq, maintained that white phosphorus bombs could be unleashed on insurgents. In an email to reporter Darrin Mortenson he wrote, "It is a conventional weapon used as an obscurant, for marking and illumination, and may be used against enemy forces."⁴¹ He continued:

"As with any weapon in our inventory, we consider the target vulnerability and location, available munitions, risk to the civilian population, and risk to friendly forces in determining how a target will be attacked."⁴²

⁴⁰ *Id.*

⁴¹ Mortenson, note 30, *supra*.

⁴² *Id.*

For the purposes of this thesis the allegations above will be assumed to be factual. The following is a summary of what the legal analysis presented below will be based on:

- White phosphorus was used during the Fallujah assaults of 2004;
- White phosphorus was fired at suspected insurgent positions in order to flush them out and kill them with high explosives;
- The marines were often not aware of who their targets were, or what damage was being caused;
- Although non-combatants were not intentionally targeted, the difficulty in distinguishing them from the combatant insurgents in the urban setting and from controlling the indiscriminate effects of white phosphorus meant the non-combatants suffered the effects of the attack.

2.3 The Chemistry and Utility of White Phosphorus

White Phosphorus is a white (or yellow) solid with a garlic-like odour. It burns very easily, catching fire at temperatures 10-15 degrees Fahrenheit above room temperature. It reacts very easily with oxygen, and, as a result, is normally stored in water. It does not occur naturally.⁴³

White phosphorus has a number of uses, including fertilizers, food additives, cleaning compounds, and in the past was used for rat and roach poisons as well as in fireworks. Its

⁴³ *Public Health Statement for White Phosphorus*, Agency for Toxic Substances and Disease Registry (ATSDR), September 1997, <http://www.atsdr.cdc.gov/toxprofiles/phs103.html> (accessed 12 June 2006).

most infamous use was in the manufacture of matches but due to the severe side effects during the manufacturing process to the workers' health, it was replaced with another chemical.

Its most useful military application is as a smoke screen. When fired, either from mortar, artillery or grenade, it would burn and produce a dense white smoke. It has proven extremely useful as a screening agent to obscure troop movements.

The US Environmental Protection Agency (EPA) describes white phosphorus as "extremely toxic to humans".⁴⁴ There are two ways white phosphorus impacts human health: firstly, the effect of white phosphorus particles; secondly, the effect of white phosphorus smoke. These will be discussed below.

As mentioned above, white phosphorus burns very easily. It is described as a pyrophobic material in that it is spontaneously flammable. Upon exposure to air, it oxidizes to form phosphorus pentoxide. During this process, immense heat is released in the form of a bright flame with dense white smoke. This process continues until all phosphorus has oxidized or until it has been deprived of oxygen. When the burning particles come into contact with exposed skin it can cause serious second and third degree burns. It has rapid dermal penetration and results in deep and painful burns.⁴⁵ Once the particle is under the

⁴⁴ *Phosphorus*, U.S. Environmental Protection Agency, January 2000,

<http://www.epa.gov/ttn/atw/hlthef/whitepho.html>

⁴⁵ *White Phosphorus*, GlobalSecurity.org,

<http://www.globalsecurity.org/military/systems/munitions/wp.htm> (accessed 12 June 2006).

skin, it will burn until it is used up or deprived of oxygen. As such, it is very capable of burning right to the bone. Water may temporarily stop the burning, but once it has dried off, and the particle has access to oxygen, it will reignite. Aside from death or serious burns, the victim of a white phosphorus burn may also develop heart, liver and kidney damage as a result.⁴⁶ Inhalation of the white phosphorus particles in the smoke could cause serious damage to the lungs and throat.⁴⁷

White phosphorus smoke also possesses physiological effects on the human body. White phosphorus smoke is composed of particles of phosphorus pentoxide, which reacts with moisture in the air or body to form phosphoric acid.⁴⁸ This acid, depending on its concentration and the duration of exposure, may produce a variety of topically irritative injuries to the victim.⁴⁹ Few studies have been conducted regarding the effects of inhalation of white phosphorus smoke on human health. One such study was in 1935 when White and Armstrong conducted a series of tests on human volunteers.⁵⁰ Male subjects were exposed to white phosphorus smoke at various concentrations. At the lowest concentration (phosphorus pentoxide at 188mg/m³) a five-minute exposure resulted with half the subjects reporting respiratory distress, coughing, congestion and

⁴⁶ATSDR, note 42, *supra*.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ GlobalSecurity.org, note 44, *supra*.

⁵⁰ *Toxicity of Military Smokes and Obscurants*, National Academy of Sciences, Vol 2, at 24, available at: www.nap.edu/catalog/9621.html (accessed 12 June 2006).

throat irritation.⁵¹ At a higher concentration (phosphorus pentoxide at 514mg/m³) a 15 minute exposure resulted in all subjects reporting tightness of chest, coughing, nose irritation, and difficulty speaking.⁵² In a further study, human volunteers were exposed for 3.5 minutes (phosphorus pentoxide at 592mg/m³) resulting in similar respiratory irritation, tightness of chest, coughing and difficulty breathing. Following this experiment, the subjects refused to be exposed to a higher concentration and thought it would be impossible, without more serious effects, to perform any physical exercise or labour at that concentration.⁵³ In one such experiment one of the subjects developed acute bronchitis.⁵⁴ Importantly, all these effects were reversible once the subject had left the exposure site.⁵⁵

In summary, white phosphorus is a volatile chemical causing serious burns to the victim. In this state, it could be potentially considered as an incendiary weapon. When oxidised, it causes irritation to the respiratory system and mucus membranes. In this state, it could potentially be used as a chemical weapon. The following is an analysis of the legal regime governing such uses.

3.0 Chemical Weapons

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

One of the principle allegations against white phosphorus use in Fallujah is that it amounted to the use of a chemical weapon, thereby violating international treaty and customary law. In order to ascertain the law, Article 38(1) of the *Statute of the International Court of Justice* provides which sources may be relied upon, i.e., international conventions, international custom, general principles of law, and judicial decisions and the teachings of the most highly qualified publicists. In light of this provision, the following is an analysis of the law governing chemical weapon use and its application to the Fallujah assault.⁵⁶

3.1 Prohibition of Chemical Weapons Use

International treaty and customary law clearly prohibit the use of chemical weapons.

3.1.1 Treaty Law

The euphoria following the Cold War, coupled with the international condemnation of the use of chemical weapons by Iraq in the Iran-Iraq War and in Kurdistan, created fertile ground for the development of a comprehensive chemical weapons treaty. In 1993, the *Convention on the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction* (also known as ‘Chemical Weapons Convention’ or ‘CWC’) was concluded. It opened for signature on 13 January 1993, and entered into force on 29 April 1997, currently boasting 178 States Parties, including the United States, Russia, Iran, India, and Pakistan.⁵⁷

⁵⁶ 1945 Statute of the International Court of Justice, Article 38(1).

⁵⁷ As of 13 June 2006.

The CWC has a much broader scope of application than any previous regime. Under Article I, each State Party undertakes “never under any circumstances to use a chemical weapon”⁵⁸ or “To develop, produce, acquire, retain, transfer, directly or indirectly, chemical weapons to anyone.”⁵⁹ Likewise, a State may not “engage in any military preparations to use chemical weapons”⁶⁰, or “assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.”⁶¹ States are also required to destroy their current (and abandoned) chemical weapon stockpiles, and any current or former production facilities.⁶² The phrase “never under any circumstances” emphasizes the comprehensive and totally binding character of the prohibitions.⁶³ Geographically, the prohibitions possess a universal character, applying to the activities of States Parties everywhere.⁶⁴ The wording is such that it covers international and non-international armed conflicts, regardless of whether the parties recognize each other.⁶⁵ Furthermore, State Parties are required to adopt penal legislation

⁵⁸ 1993 Convention on the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (hereinafter ‘The Chemical Weapons Convention’) Article 1 (1)(b).

⁵⁹ *Id.* Article I (1)(a).

⁶⁰ *Id.* Article I(1)(c).

⁶¹ *Id.* Article I(1)(d).

⁶² *Id.* Article I(2) – (4).

⁶³ Walter Krutzsch and Ralf Trapp, *A Commentary on the Chemical Weapons Convention*, (1994) 12.

⁶⁴ *Id.* 13.

⁶⁵ *Id.* 13

to enforce the convention and extend that legislation extraterritorially to national persons holding their nationality.⁶⁶ Reservations to the Articles of this Treaty are not permitted.⁶⁷

3.1.2 Customary International Law

Although early attempts to prohibit the use of chemical weapons date back to 1865, where an agreement between the French and German armies is recorded as stating “that no side should use poisoned bullets”,⁶⁸ no multilateral approach was undertaken until the Hague Peace Conferences of 1899 and 1907. A declaration was adopted at the 1899 Conference prohibiting “the use of projectiles, the sole object of which is the diffusion of asphyxiating or deleterious gases”.⁶⁹ In addition, both the 1899 and 1907 Conferences included prohibitions on the use of “poison or poisoned weapons”.⁷⁰ Unfortunately, these provisions proved unsuccessful, as in 1915, during the First World War battle of Ypres, the German military unleashed a chemical attack against the French forces. This led the

⁶⁶ The Chemical Weapons Convention, Article VII(1)(c).

⁶⁷ The Chemical Weapons Convention, Article XXII.

⁶⁸ Margaret Sewell, *Freedom from Fear: Prosecuting the Iraqi Regime for the Use of Chemical Weapons*, 16 St. Thomas L. Rev. 365, 378 (2004).

⁶⁹ Declaration Concerning the Prohibition of the Use of Projectiles Diffusing Asphyxiating Gases, July 29, 1899, reprinted in *A Manual on International Humanitarian Law and Arms Control Agreements* 99 (M. Cherif Bassiouni ed., 2000) [hereinafter Hague Declaration].

⁷⁰ First International Peace Conference, The Hague, 1899, reprinted in 1 Am. J. Int'l L. 103, 105; Second International Peace Conference, The Hague, 1907, reprinted in 2 Am. J. Int'l L. 1, 106.

English, French and Americans to retaliate in kind. During the First World War, 1.3 million casualties were caused by such chemical attacks.⁷¹

The Treaty of Versailles provided further prohibitions on the use of chemical weapons. Germany was banned from their possession and use. Their use was also outlawed in the Treaty in Relation to the Use of Submarines and Noxious Gases in Warfare 1922 (the latter of which never entered into force).⁷²

It was not until the *Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare* (hereinafter ‘Geneva Protocol’) opened for signature in 1925 that a relatively broader ban was implemented. The Geneva Protocol outlawed “the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids materials or devices [...]”

The Hague Conventions and the Geneva Protocol had a number of serious limitations. Firstly, both were merely prohibiting the use of chemical weapons, and providing no safeguards against their possession, development, transfer, or stockpile.⁷³ Secondly, the ban on use only applied as between states parties to the instruments, and had no effect on the use of the weapons against a non-state party. Furthermore, the Hague Convention

⁷¹ David B. Merkin, *The Efficiency of Chemical Arms Treaties in the Aftermath of the Iran-Iraq War*, 9 B.U. Int’l L. J. 175, 177 (1991).

⁷² David P. Fidler, *International Law and Weapons of Mass Destruction: End of the Arms Control Approach?* 14 Duke J. Comp. & Int’l L. 39, 48-49 (2004).

⁷³ *Id.*

applied only during war.⁷⁴ Thirdly, a large number of States entered reservations to the Geneva Protocol allowing them the right to retaliate in kind if they are attacked with chemical weapons. This rendered the applicability of the Protocol merely as a ban on first use.⁷⁵ Regardless of the limitations, these instruments were a step towards chemical disarmament and formed the basis of the international arms control regime throughout most of the Twentieth Century.

3.2 Legal Framework

3.2.1 What is a Chemical Weapon?

In order to establish what chemicals and activities fall within the prohibitions outlined above, Article II of the CWC provides a set of definitions. The CWC has a unique formulation for identifying chemical weapons. Article II(1)(a) defines a chemical weapon as:

- (a) “Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;
- (b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in

⁷⁴ *Id.*

⁷⁵ Lisa Tabassi, *Impact of the CWC: Progressive Development of Customary International Law and Evolution of the Customary Norm Against Chemical Weapons*, The CBW Conventions Bulletin, Issue no. 63, March 2004, 1.

subparagraph (a), which would be released as a result of employment of such munitions and devices;

(c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (b).”

The above are considered chemical weapons, together or separately.⁷⁶ Although a list of toxic chemicals and precursors considered to be of particular danger are provided in three schedules annexed to the Convention, these are included not to further define chemical weapons, but to serve as the list of chemicals subject to declaration, inspection and verification under the Convention. The definition is based on two central questions, firstly, is it a toxic chemical or precursor, and secondly, what is the intent of use? In assessing whether a substance is a chemical weapon, the definition of a chemical weapon must be read together with the definition of toxic chemicals, precursors, and purposes not prohibited.

3.2.2 What is a Toxic Chemical?

Toxic chemicals are defined in Article II(2) as:

“Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals regardless of their origin or of

⁷⁶ The Chemical Weapons Convention, Article II(1).

their method of production, regardless of whether they are produced in facilities, in munitions or elsewhere.”

In order to fall within this definition, the chemical must, as a result of its chemical action on life processes, cause death, temporary incapacitation or permanent harm to humans or animals.⁷⁷ This highlights two important issues. Firstly, the intent for utilizing the chemical must be to exploit its toxic properties, which manifest themselves through the chemical action on life processes. As a result, other toxic or harmful chemicals, such as dynamite, incendiaries, smoke mixtures, missile fuel and so forth, of which the toxic properties are not being exploited and where the toxic side-effects are incidental to the intended use of the substance, would not be considered to be chemical weapon. An example to clarify this issue is that if death, temporary incapacitation or permanent harm arose out of exposure to missile fuel, and that the intent of the exposure did not rely on the toxic properties of the fuel, it would not be considered a chemical weapon. However, if the fuel were sprayed upon the victims with the intent to exploit its toxic properties, it would be a chemical weapon. The terms ‘temporary incapacitation’ and ‘permanent harm’ are not further defined in the Convention. The second issue this paragraph raises is that toxicity is not dependent upon lethality. The toxic effect can also fall within a lower standard of causing temporary incapacitation or permanent harm. This is echoed in Article I(1)(b) where it refers to munitions and devices causing “death or other harm”. Therefore, lethality is not a requirement for coming within the terms of this definition.

⁷⁷ The Chemical Weapons Convention Preamble indicates that herbicides are covered elsewhere in international law.

3.2.3 What are Precursors?

The CWC defines precursors in Article II(1)(c) as:

“Any chemical reactant which takes part at any stage in the production by whatever method of a toxic chemical. This includes any key component of a binary or multicomponent chemical system.”

Taking the plain and ordinary meaning of these words creates a potentially very broad definition. The words ‘at any stage in the production’ and ‘by whatever method’ allow this to apply to a very wide variety of chemical reactants. It would seemingly include, for example, an agent that reacts with chemicals in the air or body to form a lethal chemical agent. As Trapp & Krutzsch write, since this is an entirely open-ended definition, it should be read in conjunction with the general purpose criterion in Article II(1)(a), thereby requiring the intent criteria to be the ultimate determining factor.⁷⁸ If the intent criterion is satisfied, the use of a precursor would amount to the use of a chemical weapon.

3.2.4 Lawful Use – ‘Purposes not Prohibited’

⁷⁸ Krutzsch and Trapp, note 62, *supra*, 26.

The CWC was not designed to stifle international trade or the technological development of the chemical industry.⁷⁹ As many chemicals have dual uses, the Convention's drafters understood that legitimate purposes should not be hindered. Therefore, they specified the permitted uses of toxic chemicals and precursors. These "purposes not prohibited" are defined in Article II(9) as:

- “(a) Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
- (b) Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
- (c) Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;
- (d) Law enforcement including domestic riot control purposes.”

Of particular importance to the present discussion are paragraphs (c) and (d). These relate to the legitimate use of a toxic chemical by military or law enforcement personnel.

Paragraph (d) will be discussed in the 'riot control agent section' below. Paragraph (c) creates an exception, similar to the missile fuel example outlined above, by which a toxic chemical may be utilized for military purposes so long as such use is not dependent on

⁷⁹ The Chemical Weapons Convention, Article XI. *Also see:* Alexander Kelle and Pamela Mills, *The Chemical Weapons Convention Regime and its Evolution*, published in Marie Isabelle Chevrier et al., *The Implementation of Legally Binding Measures to Strengthen the Biological and Toxin Weapons Convention*, (2004) 82.

the toxic properties of the chemical as a method of warfare. This relies therefore on the intent of the chemical's application.

3.2.5 Summary

These various definitions and criteria were carefully negotiated so that, read together, no loopholes would exist in the ban on chemical weapons. The definition of a chemical weapon is entirely purpose driven: all toxic chemicals and their precursors are chemical weapons, unless intended for purposes not prohibited and in types and quantities consistent with that purpose.

3.3 Application to Fallujah

During the debate surrounding white phosphorus use in Fallujah, a central accusation laid at the US forces was that such use was a violation of the prohibition against the use of a chemical weapon. This argument has some strength to it. Although poorly advocated in the news media, the use of white phosphorus by US forces was a violation of the prohibition against use of a chemical weapon. As outlined above, for it to be a chemical weapon, it must be considered either as a toxic chemical or a precursor. The following requirements must be fulfilled:

1. Is it a toxic chemical or precursor?
2. Was it used for purposes prohibited by the CWC?
3. If so, were the types and quantities consistent with such use?
4. Was the intent of use the exploitation of the chemicals' toxic properties?

If the final answer is ‘yes’, then white phosphorus is a chemical weapon, and the prohibition against chemical weapons use was violated.

Before analysing further, Article 31(1) of the Vienna Convention of the Law of Treaties must be noted. It states that a treaty “[...] shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”⁸⁰ This must be kept in mind in order not to create an overly stretched legal analysis.

Firstly, is white phosphorus a toxic chemical? As is recalled, this requires that the chemical’s action on life processes causes death, temporary incapacitation or permanent harm. Looking at the chemical nature of white phosphorus, and its reaction in the human body, it does not appear to have the required chemical action on life processes. Rather, the physiological effect of the chemicals coming in contact with the skin is closer to that of an incendiary weapon.⁸⁰ It burns the skin through the heat it generates, rather than as part of a chemical reaction. The evidence from the Fallujah assault supports this, as many victims of the Fallujah assault complained of suffering strange burns that could not be extinguished with water. As such, it is unlikely that white phosphorus would be considered to be a toxic chemical, and thereby a chemical weapon.

⁸⁰ See section 5 below.

In the alternative, it is arguable that white phosphorus smoke is a precursor as defined in the CWC. As discussed above, the CWC definition of a precursor is broad, being any chemical reactant that takes part at any stage in the production by whatever method of a toxic chemical. Looking at the chemical reactions that occurred, when the mortar shells containing the chemical were detonated, the burning phosphorus released a dense white smoke, containing phosphorus pentoxide and phosphoric acid, which irritated the body. White phosphorus was the precursor element taking part in the first stage of that process. Alone, it was not a chemical weapon as its effect was through heat and burns. However, when reacting with oxygen and water in the air or body, the chemical reaction was complete. The CWC definition of 'precursor' also requires that the final produced chemical is a toxic chemical, as defined in Article II(2). This toxic chemical must cause death, temporary incapacitation or permanent harm to humans through its chemical action on life processes. These three requirements are read disjunctively. Although death is possible if exposed to an overwhelming amount of phosphoric acid, temporary incapacitation is the most applicable criteria of the test. If interpreted broadly, it could mean that because the insurgents or civilians were unable maintain positions, fight effectively, and operate as they normally would, they were temporarily incapacitated. A narrower reading would argue that it requires loss of consciousness, such as was seen during the use of an unknown chemical agent by Russian forces during the November 2002 Moscow theatre hostage siege. Both of these interpretations are arguable as no definition of temporary incapacitation exists in the Convention. However, by taking into consideration the CWC's Preamble, which states that it is determined for the sake of all mankind to exclude completely the possibility of the use of chemical weapons, and by

upholding the VCLT Article 31(1), the better interpretation is likely to fall on the side of a broader reading. With such a reading, the conclusion on this issue is that the effect white phosphorus smoke has on its victims is one of temporary incapacitation, which brings it within the definition of a chemical weapon.

The use does not fall within one of the exceptions provided for in the 'purposes not prohibited'. Article II(9)(c) does not apply as this is not a use 'not dependent on the use of the toxic properties of chemicals as a method of warfare'. It was not used as a smoke screen but clearly dependent upon the toxic properties of white phosphorus as a precursor.

The final element to prove is the intent of the commander ordering white phosphorus use taking advantage of its toxic properties? Following the assumptions laid out in the allegations above, the use of the white phosphorus was in order to flush the insurgents from their protected spaces in order to fire high explosive rounds as they exited the building. White phosphorus was used as a precursor chemical reactant, with the intent of exploiting the toxic properties of the phosphoric acid it produced.

The conclusion is that due to the method and intent in which white phosphorus was employed, it amounted to being a precursor not being used for purposes not prohibited and, thus, a chemical weapon, the use of which is strictly prohibited under any circumstances by the CWC. The US, thereby, breached its obligations under this

Convention.

4.0 Riot Control Agent

Another CWC prohibition potentially violated by the use of white phosphorus in Fallujah is regarding the use of a riot control agent (RCA) as a method of warfare. Prior to the adoption of the Convention, international law was somewhat ambiguous as to whether RCAs were considered to be chemical weapons, largely because the Geneva Protocol did not directly address the issue. During the Vietnam War, US forces came under heavy criticism for their use of tear gas as a method of warfare. It was primarily used to demobilize and disorientate the enemy, and was often followed with rounds of lethal conventional munitions. Allegations also accused the North Vietnamese for committing similar acts. The status of RCAs under international law and the actions of the US in Fallujah will now be examined.

4.1 General Purpose Criterion

The CWC is the first treaty to deal specifically with the issue of RCAs. Article I(5) states that “Each State Party undertakes not to use riot control agents as a method of warfare.” RCA’s are defined in Article II(7) as “Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.” There is some disagreement between the US position and that of the rest of the world as to what acts this prohibition encompasses. The US argues that the only law regulating RCA use is Article I(5) coupled with the corresponding definition in Article II(7). Therefore, the US

argues, the prohibition against RCA use as a method of warfare is the only constraint. If this were correct, it would permit a state to develop, produce, retain and transfer riot control agents in any form and in any quantity, so long as it did not actually use them as a method of warfare.⁸¹ This goes against the purposes and principles of the CWC and would allow a large class of toxic chemicals to evade the Convention's control mechanisms.⁸² It would also create a system replicating what already existed under the Geneva Protocol, in which only use was prohibited, and not the development, production, retention, transfer of certain agents.

However, most States Parties to the CWC agree that it contains further restrictions, namely that the general purpose criterion applies to RCAs. They argue that by definition, an RCA is a toxic chemical. This is because the Convention defines a toxic chemical as "Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals." Comparing this to the definition of an RCA, the RCA must cause "sensory irritation or disabling physical effects". All chemicals that cause such irritation or disabling physical effects would naturally be causing temporary incapacitation.⁸³ RCAs must by definition be viewed as a

⁸¹ Abram Chayes, Matthew Meselson, R. Justin Smith, *Proposed Guidelines on the Status of Riot Control Agents and Other Toxic Chemicals under the Chemical Weapons Convention*, Background Document, 19th Workshop of the Pugwash Study Group on the Implementation of the Chemical and Biological Weapons Conventions: The First CWC Review Conference and Beyond, The Netherlands, 26-27 April 2003

⁸² *Id.* 2.

⁸³ *Id.* 2.

subset of toxic chemicals.⁸⁴ Consequently, this brings RCAs into the restrictions of the general purpose criterion defined in Article II(1). The General Purpose Criterion has a central role in the Convention and it would be surprising that some toxic chemicals were covered and some excluded. The implications of this reasoning is that RCAs may only be used in a situation which is not a method of warfare, complies with the purposes not prohibited exceptions under Article II(9), and as long as the types and quantities were consistent with such purposes. The purposes not prohibited sub-paragraphs relevant to the present discussion are (9)(c) and (d).

Of the two positions outlined above, the history of the Convention, its object and purpose, its text, and the state practice all lend support to the second more restrictive argument. An oft-quoted example of applying the above reasoning involves the following situation: imagine a stockpile of howitzer shells loaded with a toxic chemical that meets the RCA requirements of Article II(7). This RCA, due to it temporarily incapacitating its victims, is a toxic chemical under Article II(2) and thereby falls within the general purpose criterion requirements. At this point, two issues need to be addressed: Firstly, was its use intended for purposes not prohibited under Article II(9)? Secondly, were the types and quantities consistent with such purposes? In applying this, the only two purposes in Article II(9) which could possibly apply to this example are sub-paragraphs (c) and (d). On closer inspection, it is evident that sub-paragraph (c) (which requires that “the agent is used for military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of

⁸⁴ *Id.* 2.

warfare”) would not apply as the inferred intent from loading and using howitzer shells with an RCA is unlikely to involve anything but the exploitation of the agents’ toxic properties as a method of warfare. Equally, sub-paragraph (d) is inapplicable as no legitimate argument could be raised that howitzer shells were used for “law enforcement including domestic riot control purposes”. Even if the example were to fall within one of these non-prohibited purposes, the types and quantities used would still be inconsistent with the permitted use in either of these sub-paragraphs. The shells and the agent would therefore be considered as chemical weapons. Any use would result in a violation of the CWC prohibition on use of a chemical weapon.

In summary therefore, the requirements that must be satisfied to establish whether an RCA is considered a chemical weapon, are as follows:

1. Was the chemical used considered a RCA under the CWC?
2. Was the RCA used as a method of warfare?
3. Did the use fall under one of the purposes not prohibited in Article II(9), and were the types and quantities consistent with such purposes?

Point (1) has already been defined above. The following is an analysis of the law and an application of points (2) and (3) to the use of white phosphorus in Fallujah.

4.2 Method of Warfare

Article I(5) of the CWC requires that RCAs not be used as a method of warfare. This was a highly contentious section to negotiate. The final text of the CWC shows a compromise

between the two primary opposing positions, with the US on one side and the UK (supported by most negotiating states) on the other. No definition of method of warfare could be agreed upon, and none is universally accepted or readily identifiable from other sources.⁸⁵

i. US Position

Before the CWC, no coherent view existed as to the legality of RCA use as a method of warfare. The 1925 Geneva Gas Protocol did not address the issue directly. Most States were of the opinion that the Protocol prohibited RCA use through the prohibition against the use of all asphyxiating and poisonous gases and analogous materials. The US pioneered an extreme position, where it consistently argued that the prohibition did not apply to agents with temporary effects. However, such a view did not receive widespread international support,⁸⁶ nor unanimous approval within the US government.⁸⁷ In order to receive Senate ratification of the Protocol, US President Gerald Ford was forced into a compromise position, in which his administration agreed to include an Executive Order 11850 (EO 11850) permitting some restricted uses of RCAs.⁸⁸ The relevant section states:

⁸⁵ Major Ernest Harper, *A Call For a Definition of Method of Warfare in Relation to the Chemical Weapons Convention*, 48 Naval L. Rev 132, 2001, 133.

⁸⁶ *See: Narrative*, U.S. Department of State, <http://www.state.gov/t/ac/trt/4784.htm> (accessed 12 June 2006).

⁸⁷ Harper, note 84, *supra*, 135.

⁸⁸ *Renunciation of certain uses in war of chemical herbicides and riot control agents*, Executive Order 11850, 8 April 1975, 40 FR 16187, 3 CFR, 1971-1975 Comp., 980.

“The United States renounces, as a matter of national policy [...] first use of riot control agents in war except in defensive military modes to save lives such as:

(a) Use of riot control agents in riot control situations in areas under direct and distinct U.S. military control, to include controlling rioting prisoners of war.

(b) Use of riot control agents in situations in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided.

(c) Use of riot control agents in rescue missions in remotely isolated areas, of downed aircrews and passengers, and escaping prisoners.

(d) Use of riot control agents in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists and paramilitary organizations.”⁸⁹

During the CWC negotiations, the US argued that chemical weapons should be defined in such a way that RCAs would be excluded and therefore not prohibited.⁹⁰ The US argued

⁸⁹ *Id.*

⁹⁰ *Hearings Before the Comm. on Foreign Relations United States Senate (Senate Hearing 103--869)*, 103d Cong. 36 (1994) (statement of Hon. Stephen J. Ledogar, U.S. Rep. to the Conference on Disarmament, U.S. Dep't of State) [hereinafter *Senate Foreign Relations Comm. CWC Hearings*], See Harper, note 84, *supra*,

that RCAs may be used in numerous types of military-related activities conducted outside international or non-international armed conflicts and defensively to save lives, as authorized in EO 11850.⁹¹ This was an attempt by US negotiators to ensure that their military commanders were able to retain as many tactical battlefield options as possible and that they were not limited by what they perceived as unduly restrictive regulations.

ii. UK and Others Position

The positions of other negotiating states differed from that of the US. The UK and Australia led the charge for prohibiting all use of RCAs in hostilities.⁹² They feared that “an interpretation of the CWC that would allow use of non-lethal agents in war might create a dangerous loophole in the Convention.”⁹³

iii. Compromise

These two opposing positions were not easily reconciled. What brought the different parties together was a final compromise by German Ambassador Adolf von Wagner, who was the chairman of the Conference on Disarmament working group during the final CWC negotiations. The wording ultimately accepted in the CWC makes a distinction between use during hostilities as a method of warfare, which is prohibited, and use for

136.

⁹¹ David P. Fidler, *The International Legal Implications of “Non-Lethal” Weapons* 21 Mich. J. Int’l L. 51 (1999), 72-73.

⁹² Harper, note 84, *supra*, 136. Also See Jean Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law*, Vol. 1(2005), 264.

⁹³ Harper, note 84, *supra*, 136 and ft. 10.

purposes of law enforcement, which is permitted.⁹⁴ Ambassador von Wagner described this compromise as the following:

“These [RCA’s] will be banned as a method of warfare, but allowed for normal domestic law enforcement purposes or for non-warfare military purposes, such as rescuing a pilot shot down behind enemy lines, or dealing with a riot in an [sic] prisoner of war camp...”⁹⁵

As Harper writes, this language by von Wagner reflects the language of the EO 11850 and shows the compromise made with the US.⁹⁶ Although this is an important prohibition, it is flawed due to its ambiguity. It allowed excessive room for interpretation.

Customary international law provides little assistance in resolving this ambiguity. The International Committee of the Red Cross (ICRC) Study on Customary International Humanitarian Law recognizes a rule that “the use of riot-control agents as a method of warfare is prohibited”.⁹⁷ The ICRC found that the majority of states agreed that the customary prohibition of chemical weapons applies to agents with temporary effects.⁹⁸ However, it considered the US to have made consistent objections to the formation of this

⁹⁴ Henckaerts and Doswald-Beck, note 91, *supra*, 264.

⁹⁵ Ambassador von Wagner, UN Press Release, Geneva Dateline (June 23, 1992), *See* Harper, note 94, *supra*, 137.

⁹⁶ Harper, note 84, *supra*, 137.

⁹⁷ Henckaerts and Doswald-Beck, note 91, *supra*, 262

⁹⁸ *Id.* 264.

rule. Its objections were evident in regards to the Geneva Protocol and statements made during the CWC negotiations.⁹⁹ It does not accept the formation of this customary rule and argues that it may use RCAs in defensive military modes to save lives as this would not constitute a method of warfare.¹⁰⁰

Would such objection to the formation of customary international law excuse the US from its application? According to public international law, a customary norm is formed when there is both state practice and *opinio juris*. However, if a state, while such a norm is being developed, persistently objects to its formation, then it will not be bound by it.¹⁰¹ As the US has argued its broader position consistently throughout the development of the norm against the use of RCA as a method of warfare, it is likely that it will be bound by its own interpretation rather than that of the majority of the international community.

iv. US CWC Ratification

As there is disagreement regarding the interpretation of a method of warfare, it is important to fully understand the US position on RCA use in warfare situations.

Within the US, a significant debate regarding the status of RCAs emerged as ratification of the CWC became a priority. Under US President Bill Clinton, an interagency review was conducted which found that the CWC precluded use of RCAs in two situations

⁹⁹ *Id.* 264.

¹⁰⁰ *Id.* 264.

¹⁰¹ US *Restatement of the Foreign Relations of the U.S., Third* (1987), Vol. I, para.102, comment, 26. See D. J. Harris, *Cases and Materials on Public International Law* (2004) 39.

mentioned in EO 11850, namely, where civilians were used to screen attacks, and, the rescue of downed aircrew. This position was confirmed by the then Chairman of the Joint Chiefs of Staff, General Shalikashvili.¹⁰² As a result, in his letter to the US Senate in June 1994 seeking advice and ratification of the CWC, President Clinton proposed a modification of EO 11850, in which he suggested a more restrictive approach than that permitted in the Executive Order. The President stated that,

“Article I(5) of the CWC prohibits Parties from using RCAs as a "method of warfare." That phrase is not defined in the CWC. The United States interprets this provision to mean that:

The CWC applies only to the use of RCAs in international or internal armed conflict. Other peacetime uses of RCAs, such as normal peacekeeping operations, law enforcement operations, humanitarian and disaster relief operations, counter-terrorist and hostage rescue operations, and noncombatant rescue operations conducted outside such conflicts are unaffected by the Convention.

The CWC does not apply to all uses of RCAs in time of armed conflict. Use of RCAs solely against noncombatants for law enforcement, riot control or other noncombat purposes would not be considered as a "method of warfare" and therefore would not be prohibited. Accordingly, the CWC does

¹⁰² Harper, note 84, *supra*, 138.

not prohibit the use of RCAs in riot control situations in areas under direct US military control, including against rioting prisoners of war, and to protect convoys from civil disturbances, terrorists and paramilitary organizations in rear areas outside the zone of immediate combat.

The CWC does prohibit the use of RCAs solely against combatants. In addition, according to the current international understanding, the CWC's prohibition on the use of RCAs as a method of warfare also precludes the use of RCAs even for humanitarian purposes in a situation where combatants and noncombatants are intermingled, such as the rescue of downed air crews, passengers and escaping prisoners and situations where civilians are being used to mask or screen an attack. However, were the international understanding of this issue to change, the United States would not consider itself bound by this position.”¹⁰³

As ratification drew near, President Clinton’s above approach, received opposition in the US Senate. The Senate charge was led by Senator Sam Nunn of Georgia, Chairman of the US Senate Armed Services Committee, arguing that the full range of options contained in EO 11850 must be retained. Ultimately, Senator Nunn’s view prevailed, with the Senate ratifying on the condition that the President agree to a list of 28 conditions. As the CWC does not allow reservations, these conditions are not considered to be reservations, but

¹⁰³ Letter of transmittal, President of the United States, to Senate of the United States, subject: Ratification of the CWC (June 23, 1999), *See Harper*, note 83, *supra*, 138, footnote 26.

rather outline the US interpretation of the CWC. The relevant condition to the present discussion is Condition 26 which stated that RCA use would be permitted in peacetime military operations in which the US is not a party, or under UN Charter Chapter VI or Chapter VII peacekeeping operations where authorized by the Security Council. The reasoning behind this is that in such operations, the US is not waging war and so any use of RCA's would not amount to use as a method of warfare.¹⁰⁴ However, in contrast, were the US to be a party to an international or internal armed conflict, the US would be barred from using RCAs as this would be considered as use as a method of warfare.¹⁰⁵ A week after these conditions were presented, President Clinton agreed to abide by them. The CWC was subsequently ratified by the US on April 27, 1997.

In light of the restrictions contained in the CWC, as well as the US Senate's ratification conditions, the US military developed its policy on RCA use. This policy is embodied in the Chairman of the Joint Chief of Staff Instruction 3110.07A (hereinafter known as 'CJCSI 3110.07A'). This instruction reflects both Condition 26 and EO 11850. The instruction provides two situations in which RCAs would be permitted to be used: namely, in wartime, and in peacetime. The use in war copies the four conditions set out in EO 11850, but adds a fifth option, namely the protection and recovery of nuclear weapons. The uses in peacetime reflect the above Condition 26, allowing the use of RCA during peacekeeping operations.

¹⁰⁴ Harper, note 84, *supra*, 142.

¹⁰⁵ *Id.* 142.

The US position has not received widespread international support.¹⁰⁶ It even stands in contrast to a report commissioned by the North Atlantic Treaty Organization (NATO). In 1997, NATO's North Atlantic Assembly commissioned Lord Lyell to undertake a report on non-lethal weapons. The draft report of September 1997, entitled 'Non-Lethal Weapons' (known as the *Lyell Report*, excerpts of which were published in *Defense News*) firmly stated that RCAs could only be used in domestic law enforcement and not in foreign peacekeeping missions.¹⁰⁷ The problem with allowing 'peaceful' military applications of RCAs is the slippery slope argument. It is very difficult in every situation to define whether it is a peaceful military application or a method of warfare. The prohibition against use as a method of warfare must be clear-cut in order to prevent abuse and misunderstandings.

In summary, the official position of the United States is that RCAs may not be used as a method of warfare, except in order to save lives as expounded by EO 11850 or in 'peaceful' operations as outlined in Condition 26. These exceptions are generally considered to be for limited, life-saving, and defensive purposes. Although they do not amount to a reservation to the CWC, these are parameters whereby the US government will allow its commanders to act within and will not take disciplinary action over. This position is not widely accepted and is a unilateral American interpretation. If US forces actually employed such methods, they could be violating the CWC.

¹⁰⁶ Fidler, note 90, *supra*, 74.

¹⁰⁷ Nick Lewer, *Research Project 1*, Bradford Non-Lethal Weapons Research Project, November 1997, http://www.bradford.ac.uk/acad/nlw/research_reports/researchreport1.php

4.2.1 Aggravating Factor

RCA in conjunction with lethal force

Would the use of RCAs in conjunction with lethal force be a violation of the prohibition of use as a method of warfare? An example of such use is to employ an RCA to flush the enemy out of its protected position (eg, a cave, building etc) in order to engage them with lethal force. Would such use of RCAs as a force multiplier be considered a method of warfare?

During Congressional testimony, Dr. Amy Smithson explained what would clearly constitute a method of warfare:

“Distinguishing method of warfare use from a limited, defensive, life saving use of RCAs should be a fairly straightforward matter. The law of war describes a method of warfare as a way to attain military objectives. According to this definition, flushing enemy soldiers from foxholes into the line of fire, or launching an RCA attack on an enemy command post easily qualify as method of warfare uses.”¹⁰⁸

There is little disagreement amongst commentators that an RCA attack as a force multiplier would come under the definition of method of warfare.¹⁰⁹ The then US

¹⁰⁸ Harper, note 84, *supra*, 149.

¹⁰⁹ *Id.* 150.

Secretary of Defense, William Perry, in a memorandum entitled “Riot Control Agents and the Chemical Weapons Convention”, addressed to Assistant to the President for National Security Affairs, agreed “[...] that the CWC would prevent some militarily useful applications of RCA’s, when they would achieve a military objective, e.g. against troops in caves.”¹¹⁰ The use of an RCA in such a manner would constitute a method of warfare and be prohibited.¹¹¹

One of the dangers of allowing force multiplier use of an RCA is the fear of escalation. The enemy may not realize that the chemical is ‘merely’ an RCA and could retaliate with a lethal agent. The *Chemical Weapons Convention Bulletin* rightly summarizes this point:

“The question is whether the risk of further escalation does not outweigh such limited military benefit as these uses might bring. Use of disabling chemicals on intermingled combatants and civilians in a war zone, for example, could lead to or become the excuse for unrestricted employment in urban warfare.”¹¹²

4.2.2 Mitigating Factors

When weighing up whether the use of RCAs was as a method of warfare in violation of the CWC, a number of mitigating factors deserve consideration. Although none of these

¹¹⁰ *Id.* 151.

¹¹¹ *Id.* 151.

¹¹² Editors, 15 *Chemical Weapons Convention Bulletin*, 4 (March 1992).

criteria exist in the CWC itself, or would excuse the violations of the CWC, they may lessen the severity of the accusations.

Mitigating Factor 1: Avoiding Unnecessary Non-Combatant Casualties

Harper writes that the most important measure in determining whether a particular employment of an RCA constitutes a method of warfare is whether the goal of that employment is to avoid unnecessary non-combatant casualties.¹¹³ As with a number of considerations in the CWC, this factor also boils down to the intent of RCA use: was the intent to save innocent lives, or to enhance the effects of lethal weapons? If the intent of using RCA were to avoid unnecessary non-combatant casualties, for example in an urban setting, then this would weigh against such use being considered a method of warfare.¹¹⁴ However, if used as a force multiplier, there is little room for argument that this was not use as a method of warfare. The intent to save innocent lives was the overriding consideration that guided the US military and civilian administration to allow the use of RCA in certain limited situations under EO 11850.¹¹⁵ An example where such use could be permitted is to control civilians rioting and threatening food convoys travelling to refugee camps.¹¹⁶ The intent in such a situation is to save lives, reduce casualties and protect the food.

¹¹³ Harper, note 84, *supra*, 152-153.

¹¹⁴ *Id.* 153.

¹¹⁵ *Id.* 153.

¹¹⁶ *Id.* 153.

Commentators have also argued that use against enemy combatants would be barred irrespective of purpose.¹¹⁷ Such use will virtually always be designed to advance some military objective.¹¹⁸ Even if the intent is to save enemy combatants lives, the method is through their harassment and/or immobilization, a military objective, and thereby exploiting the toxic properties of the chemicals as a method of warfare.¹¹⁹

Mitigating Factor 2: Incidental Operations

A further mitigating factor is whether the RCA use is incidental to attaining the military objective. A number of cases outlined in EO 11850 would fall within this factor. An example is employing RCAs in an operation to clear civilians from the vicinity of a downed aircraft. The primary objective of the operation is not the clearing of civilians, but rather the recovery of the aircrew.¹²⁰ As such, RCA use would be incidental to the primary objective.

However, if the RCA were used as part of achieving the military objective, it would be considered a method of warfare. An example is utilizing an RCA to flush soldiers from a defensive position in a cave in order to engage them.¹²¹

4.3 Law Enforcement Purposes

¹¹⁷ Chayes, Meselson, Smith, note 80, *supra*, 6.

¹¹⁸ *Id.* 6.

¹¹⁹ *Id.* 6.

¹²⁰ Harper, note 84, *supra*, 154.

¹²¹ *Id.* 154.

As mentioned earlier, an important aspect of the general purpose criterion defining a chemical weapon are the ‘purposes not prohibited’ exceptions. These are situations where use of toxic chemicals and their precursors are permitted. Of the four exceptions, Article II(9)(d) is of relevance to the Fallujah assault. This allows use of a toxic chemical if used for law enforcement purposes including domestic riot control, and if the types and quantities of the chemicals used are consistent with this purpose. This argument is posed as an additional or alternative argument in case it is found that the white phosphorus use was not as a method of warfare.

4.3.1 Law Enforcement vs. Domestic Riot Control

There has been considerable debate over the choice of wording in Article II(9)(d). A split has emerged over the relationship between the two phrases ‘law enforcement’ and ‘domestic riot control’. The US adopts the ordinary meaning of this phrase, that is, that ‘domestic riot control’ is a subset of ‘law enforcement’ and that other permissible law enforcement activities exist that may not be domestic riot control.¹²² According to Ambassador Stephen Ledogar, the US CWC-negotiating ambassador, in written testimony to the US Senate Foreign Relations Committee,

“We understand the language ‘law enforcement including domestic riot control’ to mean that domestic riot control is a subset of law enforcement

¹²² J P Perry Robinson, *Solving the problem of ‘law enforcement’*, Discussion Paper, 19th Workshop of the Pugwash Study Group on the Implementation of the Chemical and Biological Weapons Conventions: The First CWC Review Conference and Beyond, The Netherlands, April 2003, 1.

activities. We understand other law enforcement activities to include: controlling rioting prisoners of war; rescuing hostages; counter terrorist operations; drug enforcement operations; and non-combatant evacuation.”¹²³

However, an opposing interpretation was proposed by the UK and supported by the majority of negotiating states which stated that the Convention entitles states parties,

“to use toxic chemicals for law enforcement, including domestic riot control purposes, provided that such chemicals are limited to those *not listed in the schedules to the convention and which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.*”¹²⁴

This second interpretation has incorporated the RCA definition from Article II(7). It consequently limits the use of chemicals for law enforcement purposes only to those which are permitted for riot control purposes, thereby coming to the opposite interpretation of the US and making law enforcement purposes a subset of domestic riot

¹²³ USA, 102d Congress, 2nd Session, Senate, Committee on Foreign Relations, hearing, 1 May 1992, Chemical Weapons Ban Negotiation Issues, S.Hrg.102-719, USGPO, 1992, 34-35.

¹²⁴ UK Foreign & Commonwealth Office Minister of State Douglas Hogg, written response to a Parliamentary question from Mr Macdonald addressed to the Secretary of State for Foreign and Commonwealth Affairs, 7 December 1992, Hansard (Commons) vol 215 no 89 cols 461-62, *see* Robinson, note 121, *supra*, 1.

control.¹²⁵ This interpretation complies with Article 31 of the VCLT by interpreting the provision “[...] in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its object and purpose.”¹²⁶

According to the CWC’s Preamble, the Convention’s object and purpose is to exclude “completely the possibility of the use of chemical weapons”.¹²⁷ The practical effect of the US position is that it creates an entire class of chemicals that would be completely free from the Convention’s prohibitions. As the CWC provides only a definition of RCAs, and not law enforcement, and since the US considers RCAs a subset of chemicals used for law enforcement purposes, those latter chemicals would not fall under the CWC control mechanisms. As Professor Robinson states, the US position pays little attention to the object and purpose of the Convention by legitimising the development, production and stockpiling of anti-personnel chemicals having physiological effects different from those of existing police-issue tear gases and the like.¹²⁸

The consequences of this are that by adopting the US position, white phosphorus smoke could potentially be used in a situation that is arguably one of law enforcement, but which does not fall within the riot control definition. Although at odds with the interpretation accepted by most CWC States Parties, the US could potentially argue that Fallujah was a situation of law enforcement and that therefore the use of white

¹²⁵ Robinson, note 121, *supra*, 1.

¹²⁶ 1969 Vienna Convention for the Law of Treaties, Article 31(1).

¹²⁷ The Chemical Weapons Convention, Preamble.

¹²⁸ Robinson, note 121, *supra*, 1.

phosphorus was permitted. However, as will be outlined below, it is unlikely that such an interpretation is possible. The analysis below will discuss the meaning and scope of the term ‘law enforcement’. It will also analyse issues of law enforcement authorization under national and international law. Lastly, these will be applied to the Fallujah assault to assess whether the situation was one of law enforcement.

4.3.2 The Meaning and Scope of ‘Law Enforcement’

As mentioned above, the CWC does not provide a separate definition of the term ‘law enforcement’. There is confusion regarding what law may be enforced, how and where it may be enforced, and in what circumstances.¹²⁹ Krutzsch gives some guidance on this issue. He points out that the phrase “law enforcement including domestic riot control” presupposes a specific factual situation in which domestic law and order are violated or endangered.¹³⁰ In such a situation, the “use of force by police or other organs must be allowed within the scope of a state’s jurisdiction to re-establish law and order.”¹³¹

‘Law enforcement’ and ‘domestic riot control’ have different meanings. Krutzsch states that ‘law enforcement’ is the more general term, whereas ‘domestic riot control’ is more specific. An example of law enforcement that Krutzsch provides is the reprimand by a policeman on night patrol vis-à-vis individuals disturbing sleep. The consequences of law

¹²⁹ Chayes, Meselson, Smith, note 80, *supra*, 15.

¹³⁰ Walter Krutzsch, *Non-Lethal” Chemicals for Law Enforcement?* 19th Workshop of the Pugwash Study Group on the Implementation of the Chemical and Biological Weapons Conventions: The First CWC Review Conference and Beyond, Netherlands, April 2003, 3.

¹³¹ *Id.* 3

enforcement are a fine or arrest. In contrast, a domestic riot control situation involves rioting citizens with the consequent security action involving cordons, police sticks, water-cannons, and tear gas.¹³²

4.3.3 Who May Enforce the Law?

With no definition, the question of who may execute law enforcement is of vital importance. The editors of *The Chemical Weapons Convention Bulletin* have provided a proposed guideline to this question:

The term “law enforcement” in Article II(9)(d) means actions taken within the scope of a nation’s “jurisdiction to enforce” its national laws, as that term is understood in international law. When such actions are taken in the context of law enforcement or riot control functions under the authority of the United Nations, they must be specifically authorized by that organization. No act is one of “law enforcement” if it otherwise would be prohibited as a “method of warfare” under Article II.9(c).¹³³

i. Law Enforcement of National Law

Under national law, it is clear that the law may be enforced within a State’s territorial boundary and upon its subjects. This is not in dispute and is a cardinal principle of

¹³² *Id.* 4

¹³³ The Chemical Weapons Convention Bulletin, *Proposed Guidelines on the Status of Riot Control Agents and Other Toxic Chemicals Under the Chemical Weapons Convention*, March 1997, Issue no. 35, 15.

national jurisdiction and state sovereignty. However, may a state enforce its laws within the territory and upon the subjects of another state? As stated in the above guideline, the phrase ‘jurisdiction to enforce’ national laws must be considered in its context of international law. It is a cardinal principle that “a state cannot take measures on the territory of another state by way of enforcement of national laws without the consent of the latter.”¹³⁴ Therefore, the enforcement of national law depends on territorial and subject-matter jurisdiction.¹³⁵ No person may be arrested, detained, taxed etc. on the territory of another state, except when permitted by that state.¹³⁶ In the context of the CWC therefore, for a state to use RCA for law enforcement activities in another states’ territory, it must first receive the consent of that state.

ii) Law Enforcement of International Law

International law does not provide greater clarity to the issue. Is it permissible for a state to justify its use of RCAs claiming that it is enforcing international law? Are there restrictions on such actions? As Chayes and Meselson write, only in the narrowest of circumstances should States be permitted to invoke international law to justify their “law enforcement” activities, and that it would be an invitation to anarchy to permit states to judge and enforce violations of international law themselves.¹³⁷ As such, the avenue that gives the greatest legitimacy for law enforcement internationally is through the UN.

Under the United Nations Charter, two organs are empowered to authorize international

¹³⁴ Ian Brownlie, *Principles of Public International Law* (2003) 306.

¹³⁵ *Id.* 297.

¹³⁶ *Id.* 306.

¹³⁷ Chayes, Meselson, Smith, note 80, *supra*, 15.

actions involving the use of force, namely the General Assembly and the Security Council.¹³⁸ Without their approval, such activities could not be viewed as legal law enforcement. However, even with UN approval, such actions would still have to comply with the prohibition under treaty and customary law of RCA use as a method of warfare.¹³⁹

4.4 Application to Fallujah

The above law will be applied to the Fallujah assault to ascertain whether the use of white phosphorus smoke amounted to a use of a RCA as a method of warfare, and/or whether it was a situation of law enforcement.

Firstly, white phosphorus smoke does have the RCA properties. As was mentioned earlier, burning white phosphorus emits a dense white smoke composed of particles of phosphorus pentoxide, which reacts with moisture in the air to form phosphoric acid.¹⁴⁰ This acid may produce a variety of topically irritative injuries to the victim, as well as eye, nose and respiratory irritation.¹⁴¹ The testing carried out in 1935 showed that the symptoms were reversible when the victim left the exposure site. This fits the CWC definition of an RCA under Article II(7), i.e., that it be a chemical producing sensory irritation or disabling physical effects that disappear within a short time following

¹³⁸ See Antonio Cassese, *International Law* (2005) 346 – 351.

¹³⁹ The Chemical Weapons Convention, Article I(5)

¹⁴⁰ ATSDR, note 42, *supra*.

¹⁴¹ GlobalSecurity.org, note 44, *supra*.

termination of exposure. It would therefore be a violation if the US had used white phosphorus smoke as a method of warfare.

Having been exposed to the chemical, and experiencing the above described symptoms, the victims would have been temporarily incapacitated. This brings white phosphorus within the general purpose criterion and the definition of a toxic chemical. In order to be a lawful use of the chemical, the US would have to show that it was using the smoke for a purpose not prohibited (i.e., law enforcement) and that the types and quantities were consistent with such use. Although if white phosphorus were used as a method of warfare it would already be a violation of the CWC, it is important to address the arguments that could be raised in favour of the US use.

As the US has the broadest position on the issue of method of warfare, its arguments will be used as the minimum standard. If the US had violated what it considered to be legal, then it would also be illegal under the more restrictive international position. The US considers RCA use in wartime situations to be legal if used for peaceful purposes. EO 11850 outlines five such purposes, and Condition 26 of the Senate CWC Ratification Conditions provides a number of further permitted peaceful RCA applications. When examining EO 11850, it is evident that the white phosphorus use in Fallujah was not a situation of controlling rioting prisoners of war, nor a rescue mission for downed aircrews, passengers, escaping prisoners of war, nor one of use in rear echelons outside the zone of immediate combat to protect convoys. A possible argument is that the Fallujah assault was one of EO 11850 condition (b) allowing the use of RCAs in

situations where civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided. However, this does not seem to fit the witness accounts of how white phosphorus was employed in Fallujah. All accounts, including official US government statements, showed that US forces were firing it at positions where suspected insurgents were believed to have barricaded themselves. They were thereby flushed out with the agent and hit with high explosives upon their exiting the building. This does not fit with EO 11850 condition (b) as there was no evidence that white phosphorus was used to separate civilians from combatants in order to only kill the latter. Furthermore, the US forces would engage those fleeing the building with lethal force. White phosphorus was thus a force multiplier, used in conjunction with lethal force. This was not use as a defensive or peaceful mode as required by EO 11850, nor did it fit within the peacekeeping exceptions under Condition 26. Its use can only be considered as a method of warfare.

In addition, neither of the two mitigating factors apply. As stated, white phosphorus was not used as a means of avoiding civilian casualties, as otherwise those fleeing the building would not have been engaged with lethal force. Furthermore, its use was not incidental to attain a military objective. The primary objective was to flush the enemy out of the building in order to kill them. This is a military objective in which white phosphorus smoke was employed as a RCA as a method of warfare, violating CWC provisions. As RCA, when used unlawfully, are considered to be chemical weapons, the US had therefore used a chemical weapon in the Fallujah assault, violating its international treaty, humanitarian and human rights law obligations.

It is noteworthy to consider that a grey area exists between the law of armed conflict and law enforcement by occupying powers, and between law enforcement and fighting a civil war. Determining in which category a particular conflict or battle fits depends largely on the facts and circumstances, as well as their interpretation. As the above analysis argues, the use of white phosphorus in Fallujah was one of a method of warfare. However, could the US, in its defence, argue that it was using the RCA for law enforcement purposes, as permitted by the purposes not prohibited section in Article II(9)(d)?

Firstly, the issue of authorization to enforce the law must be established. It is arguable that the US was authorized to undertake operations under both national and international law. As outlined above, two US led assaults were conducted in Fallujah, one in April 2004, and then again in November 2004. During the April assault, no sovereign Iraqi government existed and power rested in the US led Coalition Provisional Authority, headed by US Administrator L. Paul Bremer. As no Iraqi government existed, the US as the occupying power provided the national authorization. This was not a situation of the US imposing its law on another sovereign state (as prohibited under international law) because no sovereign Iraqi government existed at that time. Instead, the US as occupying power was authorized to take actions to maintain peace and security in its area of control, including law enforcement. In contrast, the situation differed for the November assault, as on 28 June 2004, the Coalition Provisional Authority officially handed over power to the Iraqi Interim Government, headed by Prime Minister Iyad Allawi. The November assault had received the necessary national authorization from Prime Minister Allawi.

Consequently, it is arguable that both the April and November assaults received authorization, once from the US as the occupying power, and once from the Iraqi Interim Government.

Under international law, the US and UK were also authorized by the UN Security Council to be the occupying power to restore the security and stability of Iraq.¹⁴² This recognition was accorded in response to a letter sent by the US and UK to the Security Council in which they acknowledged and accepted their legal status as occupying powers in Iraq and accepted all the attendant rights and obligations under existing international law.¹⁴³ The resolution also called upon all concerned “to comply fully with their obligations under international law including in particular the Geneva Conventions of 1949 and the Hague Regulations of 1907.”¹⁴⁴ It furthermore required the US and UK, consistent with the UN Charter and other relevant international law, “to promote the welfare of the Iraqi people through the effective administration of the territory, including in particular working towards the restoration of conditions of security and stability [...]”¹⁴⁵

This resolution, decided under Chapter VII, determined the situation in Iraq to be a threat to international peace and security. It was the first official Council acknowledgement of

¹⁴² UN Security Council Resolution (UNSCR), 22 May 2003, 1483, S/Res/1483

¹⁴³ *Id.* Preambular Paragraph 14. *See also* Open Society Institute and United Nations Foundation, *Reconstruction of Iraq: A Guide to the Issues*, 30 May 2003.

¹⁴⁴ UNSCR 1483, note 142, *supra*, para 5.

¹⁴⁵ *Id.* para 4.

the US and UK status as occupying powers. As such, they were authorized to ensure the restoration of security and stability in Iraq. As required by Resolution 1483, the occupying powers must adhere to the 1949 Geneva Conventions while restoring security and stability. The Fourth Geneva Convention provides the rights and duties for the occupying power. Of particular relevance is Article 27, which states that,

“Protected persons [...] shall at all times be humanely treated, and shall be protected especially against all acts of violence or threats thereof [...].

However, the Parties to the conflict may take such measures of control and security in regard to protected persons as may be necessary as a result of war.”

Article 29 further builds on this stating that:

“The Party to the conflict in whose hands protected persons may be, is responsible for the treatment accorded to them by its agents, irrespective of any individual responsibility which may be incurred.”

In Article 43 of the 1907 Hague Regulations IV, it further requires the occupying power to “[...] take all the measures in his power to restore, and ensure, as far as possible, public order and safety [...]”.

These provisions balance two competing interests, on the one hand, the obligation to treat protected persons humanely, and on the other, the permission to take such measures of control and security as may be necessary as a result of war. Combined with the authorization in Resolution 1483, it is arguable that the US and UK as occupying powers, were authorized to carry out law enforcement activities in order to ensure the restoration of security and stability in Iraq, with the condition that protected persons were treated humanely. Thereby, the first criterion, regarding authorization to enforce the law, is satisfied.

The second issue is whether the use of white phosphorus in Fallujah complies with the US interpretation of law enforcement. As is recalled, the US considers law enforcement to be separate from domestic riot control and its attendant RCA definition. Domestic riot control is a subset of law enforcement, along with a number of other possible scenarios. Of those listed by Ambassador Ledogar to the US Senate Foreign Relations Committee, only one could potentially apply to the Fallujah incident, that being counter-terrorist operations. However, from the facts it does not appear that Fallujah was a situation of law enforcement involving counter-terrorist operations. Firstly, the means and methods of the operation were inconsistent with the nature of law enforcement. Although the objective of the assault involved freeing Fallujah of insurgents, it was not a situation of counter-terrorism law enforcement. Rather, it was a military operation that was more akin to a method of warfare than law enforcement. Just because major combat operations had officially ended does not mean that all subsequent military operations are law enforcement. It is the nature of the assault that must be considered. In the case of

Fallujah, the use of white phosphorus smoke was inconsistent with the nature of law enforcement. How could the situation be considered one of law enforcement when white phosphorus was fired at suspected insurgent positions, only to be followed by rounds of conventional explosives? From the accounts of the manner in which the 'shake and bake' missions were conducted, the Marines appeared completely oblivious of the target they were firing upon. The US cannot assert that all those present in Fallujah were combatants since having urged civilians to leave. The principles of humanitarian law in the Geneva Conventions, and customary law, would still require the US to exercise the utmost regard for civilian life, and it would be expected that many were still in Fallujah during the assault. Not all civilians could or would have left. The mixture of civilians and combatants, and the way in which white phosphorus was fired upon them, is completely inconsistent with the law enforcement exception. It goes against the purposes and principles of the CWC, and violates the obligations the US had as occupying power under Resolution 1483 and the Geneva Conventions. Although the US was authorized to restore public order and safety, such measures could not involve indiscriminately killing civilians. Furthermore, it is a violation of Article 27 and 29 of the Fourth Geneva Convention where civilians are required to be treated humanely and protected from violence. The authorization from the Iraqi Interim Government is irrelevant as such actions could never be authorized under the guise of law enforcement.

Furthermore, the types and quantities of the white phosphorus were not consistent with a law enforcement situation. The allegations point to it being fired from mortar positions some distance from the target. It was used, not as a smokescreen for US Marines to evade

enemy fire, but to force the enemy from their protected positions. The fact that the military had such large quantities of white phosphorus munitions available at its disposal may point to a pre-meditation on the part of the military as to the manner that white phosphorus would be used. Law enforcement cannot have involved using mortars and explosives to restore public order. As such, the types and quantities of white phosphorus were inconsistent with the law enforcement purposes.

In summary, the use of white phosphorus smoke amounts to the use of a chemical weapon. It was used as a method of warfare during military operations. The lawful use of chemicals for law enforcement purposes does not apply in the Fallujah assault as the methods and means of the engagement are inconsistent with such use. As such, the US has violated the CWC by using a chemical weapon in Iraq.

5.0 Incendiary Weapons

A further arms control regime which was potentially violated in Fallujah is that governing incendiary weapons. Although there is no outright prohibition against their use, certain restrictions exist under treaty and customary law regarding use against non-combatants. The following involves a discussion of the relevant law, and the application to Fallujah.

5.1 Treaty Law

The 1980 *Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be Deemed to be Excessively Injurious or to have Indiscriminate Effects* was negotiated in Geneva between 51 States. It opened for signature on 10 October 1980 and entered into force in December 1983. It aims to protect military troops from inhumane injuries and prevent non-combatants from accidentally being wounded or killed by certain types of arms.¹⁴⁶ The CCW is an umbrella convention, meaning that it only contains general provisions. The substantive law on which specific weapons are restricted and prohibited is found annexed to the Convention in a number of protocols. Three protocols existed upon entry into force, each dealing with a specific weapon, the relevant one being Protocol III which deals with incendiary weapons. The CCW required states to consent to a minimum of two of the three protocols. The Convention was initially designed to deal only with international armed conflicts. However, with the rise of non-international armed conflicts throughout much of the early 1990s, an amendment was made to a single protocol in 1996 making it applicable to internal armed conflict. This was extended in 2001 to apply to the entire Convention.

The US signed the CCW on 8 April 1982. However it was not until 24 March 1995 that it ratified Protocols I and II. The US is yet to ratify Protocol III.

¹⁴⁶ Arms Control Association, *Convention on Certain Conventional Weapons (CCW) at a Glance*, September 2005, <http://www.armscontrol.org/factsheets/CCW.asp> (accessed 12 June 2006).

Unlike the Chemical Weapons Convention, the CCW has no verification mechanism, consequently relying upon states to individually verify and enforce its provisions. This creates a major weakness in the regime.

5.1.1 Protocol III

Protocol III is of particular importance to the present discussion. The Protocol contains two articles. Article I provides important definitions. Of particular relevance is the definition of an incendiary weapon, which is defined as:

“[...] any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or combination thereof, produced by a chemical reaction of a substance delivered on the target.”¹⁴⁷

Examples in the Convention of the form that such weapons can take include flamethrowers, fougasses, shells, rockets, grenades, mines, bombs and other containers of incendiary substances.¹⁴⁸ The Convention expressly excludes a number of substances from falling under the incendiary weapons definition:

- (i) Munitions which may have incidental incendiary effects, such as illuminants, tracers, smoke or signalling systems; □

¹⁴⁷ Protocol III to Convention on Conventional Weapons, Article 1(1).

¹⁴⁸ *Id.* Article I(1)(a).

(ii) Munitions designed to combine penetration, blast or fragmentation effects with an additional incendiary effect, such as armour-piercing projectiles, fragmentation shells, explosive bombs and similar combined-effects munitions in which the incendiary effect is not specifically designed to cause burn injury to persons, but to be used against military objectives, such as armoured vehicles, aircraft and installations or facilities.¹⁴⁹

Therefore, for a weapon to be considered an incendiary weapon, it must intentionally set fire or burn. If it ‘merely’ ignites fire or burns as a side effect, it would not be considered as an incendiary weapon under the Protocol.¹⁵⁰

Article II spells out the substantive prohibitions. The main aim of this Article is to protect the civilian population in the vicinity of the conflict zone from being targeted, and suffering from the effects of the attack. It includes four main prohibitions. Firstly, under Article 2(1), it is prohibited in all circumstances “[...] to make the civilian population as such, individual civilians or civilian objects the object of attack by incendiary weapons.”¹⁵¹ This prohibition mirrors more general bans on targeting civilians under Additional Protocol I to the Geneva Conventions and under customary international law.

¹⁴⁹ *Id.* Article I(1)(b).

¹⁵⁰ Arms Control Association, note 145, *supra*.

¹⁵¹ Protocol III to the Convention on Conventional Weapons, Article 2(1).

Secondly, Article 2(2) prohibits in all circumstances “[...] to make any military objective located within a concentration of civilians the object of attack by air-delivered incendiary weapons.”¹⁵² This broad prohibition against attacking a military object¹⁵³ within a civilian concentration¹⁵⁴ with air-delivered incendiary weapons has been criticized for being too restrictive. It could potentially immunize a military objective from attack by air-delivered incendiary weapons, in a situation where such weapons may be the only appropriate means of attack.¹⁵⁵

Thirdly, under Article 2(3), it is

“[...] prohibited to make any military objective located within a concentration of civilians the object of attack by means of incendiary weapons other than air-delivered incendiary weapons, except when such military objective is clearly separated from the concentration of civilians and all feasible precautions are taken with a view to limiting the incendiary

¹⁵² Protocol III to the Convention on Conventional Weapons, Article 2(2).

¹⁵³ Article 1(3) of the Protocol defines ‘military object’ as: “any object which by its nature, location, purpose or use makes an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”

¹⁵⁴ Article 1(2) of the Protocol defines ‘concentration of civilians’ as: “any concentration of civilians, be it permanent or temporary, such as in inhabited parts of cities, or inhabited towns or villages, or as in camps or columns of refugees or evacuees, or groups of nomads.”

¹⁵⁵ Howard S. Levie, *Prohibitions and Restrictions on the Use of Conventional Weapons*, 68 St. John’s L. Rev. 643, 664.

effects to the military objective and to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects.”¹⁵⁶

Whereas Article 2(2) prohibits the use by air-delivered incendiary weapons against a military target within a concentration of civilians, Article 2(3) applies to non-air delivered incendiary weapons and provides restrictions on their use. There are two requirements for the use of incendiary weapons to be permitted: firstly, the military object must be clearly separated from the concentration of civilians; secondly, all feasible precautions¹⁵⁷ must have been taken to limit the incendiary effects to the military object in order to minimize loss of or injury to civilian life and objects. This is a pragmatic provision which acknowledges that incendiary weapons do provide utility to the military and may in fact cause less civilian death and injury than other conventional bombs and munitions.

From these provisions, it is clear that the Protocol permits the use of incendiary weapons against combatants. The Protocol only offers some limited protections to civilians, restricting incendiary weapon use in such a manner that civilians are not harmed. It still permits the use of non-air-delivered incendiaries if all feasible measures were taken not to harm civilians or civilian objects. Civilians may not be made the object of an attack,

¹⁵⁶ Protocol III to the Convention on Conventional Weapons, Article 2(3).

¹⁵⁷ Article 1(5) defines ‘feasible precautions’ as: “those precautions which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations.”

and if military objects are located in their vicinity, no air delivered incendiaries may be used.

5.1.2 US Position Towards Protocol III

As mentioned above, the US has not signed or ratified Protocol III. President Clinton, upon submitting the Convention to the US Senate for approval in 1994, recommended that the US exercise its right to ratify the Convention accepting only the first two Protocols and not Protocol III. He stated that Protocol III was not sent to the Senate

“[...] because of concerns about the acceptability of the Protocol from a military point of view. Incendiary weapons have significant military value, particularly with respect to flammable military targets that cannot so readily be destroyed with conventional explosives.”¹⁵⁸

However, even though incendiary weapons have such utility, President Clinton reaffirmed that,

“[...] the United States must retain its ability to employ incendiaries to hold high priority military targets such as those at risk in a manner consistent

¹⁵⁸ Message from the US President transmitting Protocols II, III, and IV to the CCW to the Senate, Treaty Doc. 105-1, Washington, 7 January 1997, 37-40.

with the principle of proportionality which governs the use of all weapons under existing law.”¹⁵⁹

President Clinton proposed the inclusion of a reservation to the Protocol, which would balance the US national security interests with those of international humanitarian law. The proposed reservation would reserve the right to use incendiaries against military objectives located in concentrations of civilians where it is judged that such use would cause fewer casualties and less collateral damage than alternative weapons.¹⁶⁰ Such a reservation would remove the requirement that civilian and military objects be clearly separated and that all feasible precautions were taken to minimize loss or injury to civilians. If implemented, this amounts to a revision of the legal obligations of Article 2 of the Protocol on the US so that the test of whether the use of an incendiary weapon is permitted in such circumstances would depend on whether it is judged that such use would cause fewer civilian casualties and less collateral damage than alternative weapons.¹⁶¹ As Protocol III was never submitted for Senate ratification, this reservation was never implemented.

¹⁵⁹ *Id.* 37-40.

¹⁶⁰ *Id.* 37-40.

¹⁶¹ US Department of Defense, *CCW: Article by Article Analysis of the Protocol on Use of Incendiary Weapons*, Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, available at: www.defenselink.mil/acq/acic/treaties/ccwapl/artbyart_pro3.htm (accessed 12 June 2006).

An analysis was conducted by the US Department of Defense's Office for Acquisition, Technology and Logistics regarding the acceptability of incendiary weapons from a military standpoint. It made the following conclusion:

“Incendiary weapons have significant potential military value, particularly with respect to certain high-priority military targets. Incendiaries are the only weapons which can effectively destroy certain counter-proliferation targets such as biological weapons facilities which require high heat to eliminate bio-toxins. To use only high explosives would risk the widespread release of dangerous contaminants with potentially disastrous consequences for the civilian population. Certain flammable military targets are also more readily destroyed by incendiaries. For example, a fuel depot could require up to eight times the bombs and sorties to destroy using only high explosives rather than incendiaries. Such an increase means a significantly greater humanitarian risk of collateral damage. The United States must retain its ability to employ incendiaries to hold high priority military targets such as these at risk in a manner consistent with the principle of proportionality which governs the use of all weapons under existing law.”¹⁶²

As the US is not a party to Protocol III, it is not bound by the various provisions it provides. The US maintains the utility of incendiary weapons for military purposes and reserves its right to use them.

¹⁶² *Id.*

5.2 Customary International Law

The US may however still be bound by a number of restrictions that exist in customary international law. The ICRC, in its study of customary international humanitarian law, identifies two primary rules in particular. The first regulates the use of incendiary weapons in situations where civilians may be affected; the second governs the use of incendiary weapons against combatants. Both of these will be discussed.

5.2.1 Incendiary Use and Civilians

The ICRC identifies the following customary norm to have been developed:

“Rule 84. If incendiary weapons are used, particular care must be taken to avoid, and in any event to minimise, incidental loss to civilian life, injury to civilians and damage to civilian objects.”

There are a number of similarities between this Rule and Article 2(1) of Protocol III of the CCW, prohibiting that civilians and civilian objects become the targets of attack by incendiary weapons. Both appear to give protection to civilians. However, Protocol III Article 2(1) creates a more encompassing prohibition (prohibiting in all circumstances), compared to that of Rule 84 (particular care must be taken to avoid, and minimise).

Although making civilians the object of attack would be equally a violation of Rule 84 as that of Article 2(1), Rule 84 would seem to allow incendiary weapon use against a military target in a concentration of civilians as long as care was taken to avoid or

minimise incidental loss to civilian life, injury and so forth. The ICRC states that even though Article 2(1) is more forceful than the customary Rule 84, the former is also part of customary law as it is a direct application of the principle of distinction.¹⁶³ According to the ICRC, the other three paragraphs in Article II do not have customary force.¹⁶⁴ However, they could be considered to be guidelines for the implementation of the customary rule that particular care must be taken to avoid civilian casualties.¹⁶⁵

The evidence the ICRC Study provides to support the foundation of Rule 84 is found in a number of state documents, military manuals and statements. Firstly, many military manuals when providing the rules for incendiary weapon use refer either directly to the rules in Protocol III,¹⁶⁶ or state the requirement to avoid, or at least minimise, civilian casualties.¹⁶⁷ An overwhelming proportion of the military manuals make specific reference to the need to safeguard civilian lives during incendiary weapon use. A large proportion also forbids the use of incendiary weapons against a military objective situated

¹⁶³ Henckaerts and Doswald-Beck, note 91, *supra*, 288.

¹⁶⁴ *Id.* 288.

¹⁶⁵ *Id.* 288.

¹⁶⁶ See New Zealand's Military Manual (1992) paragraph 513 and 620; Canada's Law of Armed Conflict Manual (1999), para 33, 34 and 36; Germany's Military Manual (1992), para 420-425; Russia's Military Manual (1990), para 6(h); Sweden's International Humanitarian Law Manual (1991), Section 3.3.2, pp. 81-83.

¹⁶⁷ Henckaerts and Doswald-Beck, note 91, *supra*, 288. For military manuals with such a reference, see Cameroon's Instructors' Manual (1992) pp. 123-124, para 441; Ecuador's Naval Manual (1989), para 9-6; France's Law of Armed Conflict Manual (2001), p. 54; Israel's Manual on the Laws of War (1998), p. 16; Switzerland's Basic Military Manual (1987), Article 23(d).

within a civilian population centre,¹⁶⁸ or where it cannot be clearly separated from the civilian population.¹⁶⁹

Secondly, under the national legislation of a number of countries, the use of incendiary weapons is forbidden where the military objective cannot be clearly separated from the civilian population, civilian objects or the surrounding environment.¹⁷⁰ Estonia and Hungary even consider widespread use of incendiary weapons in such a situation to amount to a war crime.¹⁷¹

The US has contributed to the development of customary international law on this issue. However, its legislation and military manuals provide less restrictive rules on incendiary weapon use.

The US Air Force Pamphlet states that:

“The potential of fire to spread beyond the immediate target area has also raised concerns about uncontrollable or indiscriminate effects affecting the

¹⁶⁸ See Israel’s Manual on the Laws of War (1998), p. 16; Germany’s Military Manual (1992), para 420-425;

¹⁶⁹ See Argentina’s Law of War Manual (1989), para 4.25 and 4.26; Netherlands’ Military Manual (1993) pp V-13/14, para 11;

¹⁷⁰ See Estonia’s Penal Code (2001), para 103.

¹⁷¹ See Estonia’s Penal Code (2001), para 103; Hungarian Criminal Code as amended (1978), Section 160/A(3)(b)(3).

civilian population or civilian objects. Accordingly, any applicable rules of engagement relating to incendiary weapons must be followed closely to avoid controversy. The manner in which incendiary weapons are employed is also regulated by the other principles and rules regulating armed force ... In particular, the potential capacity of fire to spread must be considered in relation to the rules protecting civilians and civilian objects ... For example, incendiary weapons should be avoided in urban areas, to the extent that other weapons are available and as effective.”¹⁷²

The US Naval Handbook states the following:

“Incendiary devices such as tracer ammunition, thermite bombs, flame throwers, napalm, and other incendiary weapons and agents, are lawful weapons. Where incendiary devices are the weapons of choice, they should be employed in a manner that does not cause incidental injury or collateral damage that is excessive in light of the military advantage anticipated by the attack.”¹⁷³

Neither of these statements provide a prohibition on the use of incendiary weapons in areas of civilian concentration. Although the statement from the US Air Force Pamphlet does recommend avoiding incendiary weapons use in urban areas, the usage of the words

¹⁷² US Air Force Pamphlet (1976), para 6-6(c).

¹⁷³ US Naval Handbook (1995), para 9.7.

‘should be avoided’ would allow their use in certain circumstances where the commander deems it necessary. The same could be said regarding the US Naval Handbook statement which although stating that incendiary weapons should not be used in a manner which causes excessive incidental injury or collateral damage, if the military advantage anticipated outweighs the costs to civilians, then their use is permitted. Such guidance provides extensive room for interpretation.

During negotiations for Protocol III of the CCW, a number of proposals were made to establish the limits of the situations in which incendiary weapons could be used. At the CCW Preparatory Conference in 1979, the US stated that although it could not accept a restriction on the use of incendiary weapons against combatants,

“[...] an agreement on limiting the use of incendiaries in areas containing civilian concentrations was appropriate and possible ... The [Australia/Netherlands] proposal was the maximum that some of the principal interested parties at the Conference would be prepared to accept.”¹⁷⁴

So with this being the US position, it is important to ascertain the Australian and Netherlands proposals in order to establish what the maximum restrictions the US

¹⁷⁴ US, Statement at the CCW Preparatory Conference, UN Doc. A/CONF.95/PREP.CONF/II/SR.23, 6 April 1979, p. 2-3, para 5-6.

considered there to be on the use of incendiary weapons in areas containing civilian concentrations.

After a number of draft proposals and revisions, in 1979, Australia and the Netherlands submitted a draft proposal stating that

“[...] as a consequence of the rules of international law applicable with respect to the protection of civilians against the effects of hostilities, it is prohibited to make the civilian population as such as well as individual civilians the object of attack by means of incendiary munitions.”¹⁷⁵

Furthermore, incendiary weapons used against military objectives in civilian concentrations were not prohibited,

“[...] provided the attack is otherwise lawful and that all feasible precautions are taken to limit the incendiary effects to the military objective and to avoid incidental loss of civilian life and injury to civilians.”¹⁷⁶

These statements show what the US considers to be the maximum limit of the law on incendiary weapon use in civilian concentrations. A summary of the above law would be

¹⁷⁵ Australia and Netherlands, Draft proposal on incendiary weapons submitted to the CCW Preparatory Conference, UN Doc. A/CONF.95/PREP.CONF./L.15, 5 April 1979.

¹⁷⁶ Australia and Netherlands, Draft proposal on incendiary weapons submitted to the CCW Preparatory Conference, UN Doc. A/CONF.95/PREP.CONF./L.15, 5 April 1979.

as follows:

1. It is prohibited to make the civilians the object of attack by means of incendiary weapons.
2. Military objectives in civilian concentrations may be the object of attack. Such objects may only be attacked if
 - i. all feasible precautions are taken to limit the incendiary effects to the military objective; and,
 - ii. to avoid incidental loss of civilian life and injury to civilians.

i. Principle of distinction

What may further bind the US are the rules in the Additional Protocol I to the Geneva Conventions (many of which have attained customary status). Despite the US not being a State Party to the Protocol, many of these rules are codifications of customary international law. The Protocol obliges respect for the principle of distinction. The basic rule upholding this is Article 48 which requires parties to a conflict at all times to distinguish between the civilian population and combatants and to direct their operations only against military objectives.¹⁷⁷ Therefore, civilians may never be made the object of an attack. The International Court of Justice in the *Nuclear Weapons Advisory Opinion* upheld the principle of distinction to be one of the “cardinal principles” of the law of armed conflict and one of the “intransgressible principles of international customary

¹⁷⁷ 1977 Additional Protocol I to the 1949 Geneva Conventions, Article 48.

law.”¹⁷⁸ Article 51 of Protocol I states that civilians¹⁷⁹ shall not be the object of attack¹⁸⁰ and shall enjoy general protection against dangers arising from military operations.¹⁸¹ Article 51 codifies a principle of customary international law prohibiting indiscriminate attacks against civilians.¹⁸² Indiscriminate attacks are defined as:

- “a. those which are not directed at a specific military objective;
- b. those which employ a method or means of combat which cannot be directed at a specific military objective; or
- c. those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol.”¹⁸³

This definition has been considered part of customary international law and is included in a large number of national military manuals.¹⁸⁴ Furthermore, it has been relied upon by

¹⁷⁸ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996. Also see Henckaerts and Doswald-Beck, note 91, *supra*, 5.

¹⁷⁹ Additional Protocol I, Article 50 states that civilians are all those who are not part of the armed forces as defined in Article 43 of Additional Protocol I, as well as those not directly linked to the armed forces, released prisoners of war, those employed in the production, distribution and storage of munitions of war, and those taking or have taken part in hostilities without combatant status. See Michael Bothe, Karl Joseph Partsch, Waldemar A. Solf *New Rules for Victims of Armed Conflict* (1982) 293-294.

¹⁸⁰ Additional Protocol I, Art 51(2)

¹⁸¹ *Id.* Article 51(1)

¹⁸² Henckaerts and Doswald-Beck, note 91, *supra*, Rule 11, 37-40

¹⁸³ Additional Protocol I, Article 51(4)

¹⁸⁴ Henckaerts and Doswald-Beck, note 91, *supra*, 41.

states not party to the Protocol, including the US.¹⁸⁵ Article 54(4)(c) relates to weapons whose effects cannot be limited as required by international humanitarian law. By definition, such an attack is an indiscriminate attack.¹⁸⁶ The ICRC points to practice which illustrates that such limits are in regards to weapons whose effects are uncontrollable in time and space and are likely to strike military objectives and civilians without distinction, such as biological weapons.¹⁸⁷ Incendiary weapons would also fit this description.¹⁸⁸

In addition, Art 51(5) provides two examples of what would constitute an indiscriminate attack, the relevant one to the present discussion being (5)(b):

“an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”¹⁸⁹

This rule encapsulates the principle of proportionality where a balance is struck between the military necessity for eliminating a military object and avoiding incidental or

¹⁸⁵ Henckaerts and Doswald-Beck, note 91, *supra*, 41.

¹⁸⁶ Bothe, Partsch, Solf, note 178, *supra*, 306.

¹⁸⁷ Henckaerts and Doswald-Beck, note 91, *supra*, 43.

¹⁸⁸ Bothe, Partsch, Solf, note 178, *supra*, 305.

¹⁸⁹ Additional Protocol I, Article 51(5)(b).

collateral civilian casualties.¹⁹⁰ It has also been considered part of customary international law by the ICRC. The information available to the commander at the time of the attack must be taken into account, not that available in hindsight.¹⁹¹

Precautions must be made when launching military attacks, including the requirement of constant care to spare the civilian population.¹⁹² This principle links back to the basic rule in Art 48 requiring that military objects and civilians be distinguished. Article 57 lists a number of precautionary rules, including the verification of the identity of the object of attack as a military objective; the application of the principle of proportionality in situations when attacks against military objectives may be expected to cause collateral civilian casualties or damage to civilian objects; the choice of methods or means of inflicting injury on the enemy with the view of selecting that which poses the least danger to the civilian population.¹⁹³ The ICRC considers these precautionary rules to be part of customary international law.¹⁹⁴

5.2.2 Incendiary Use and Combatants

The second norm identified by the ICRC regulating the use of incendiary weapons is as follows:

¹⁹⁰ Bothe, Partsch, Solf, note 178, *supra*, 310.

¹⁹¹ *Id.* 310.

¹⁹² Additional Protocol I, Article 57(1).

¹⁹³ *Id.* Article 57(2). *Also see:* Bothe, Partsch, Solf, note 178, *supra*, 359.

¹⁹⁴ Henckaerts and Doswald-Beck, note 91, *supra*, Rules 15-18, 51-60.

“Rule 85. The anti-personnel use of incendiary weapons is prohibited, unless it is not feasible to use a less harmful weapon to render a person *hors de combat*.”

The ICRC stated that in the initial discussions and negotiations, a number of States were pushing for a complete ban on incendiary use against combatants. However, it soon became clear that the Protocol would not receive widespread support if such a broad prohibition were included. As such, a fallback position was posited which would have prohibited incendiary use against combatants except when they were under armoured protection or in field fortifications. This pragmatic proposal attempted to balance the military necessity of incendiary weapons against the ideal of humanizing the battlefield. However, even this position received opposition, most notably from the US and the UK. As a result, no prohibition against incendiary weapon use on combatants was included in the Protocol.

According to the ICRC, despite such prohibitions not being included, it did not mean that the use of incendiary weapons against combatants was lawful in all circumstances.¹⁹⁵

There is a broad spectrum within the various national positions on incendiary weapon use on combatants. They range from the restriction that incendiaries may only be used when combatants are under armoured protections or in field fortifications,¹⁹⁶ to the prohibition

¹⁹⁵ *Id.* 290.

¹⁹⁶ See proposals submitted to the Preparatory Conference for the CCW by Austria, Denmark, Egypt, Ghana, Indonesia, Jamaica, Mexico, Norway, Romania, Sweden, Venezuela, Yugoslavia and Zaire. *See* Henckaerts and Doswald-Beck, note 91, *supra*, 290.

on their use when causing unnecessary suffering,¹⁹⁷ to the complete prohibition on their use because it always causes unnecessary suffering.¹⁹⁸

The US position on this is articulated in the US Field Manual, where it is stated that:

“[...] the use of weapons which employ fire, such as tracer flame-throwers, napalm and other incendiary agents, against targets requiring their use is not a violation of international law. They should not, however, be employed in such a way as to cause unnecessary suffering to individuals.”¹⁹⁹

In addition, the US Air Force Pamphlet provides a similar restriction:

“Incendiary weapons [...] have widespread uses in armed conflict. Although evoking intense international concern, combined with attempts to ban their use, state practice indicates clearly they are regarded as lawful in situations requiring their use. [...] [I]ncendiary weapons must not be used so as to cause unnecessary suffering.”²⁰⁰

¹⁹⁷ See military manuals of Australia, Canada, New Zealand, United Kingdom, and the United States. See ICRC Rules, p290.

¹⁹⁸ See military manuals of Belgium, Colombia, and Sweden, as well as the statements of Norway and the USSR to the Preparatory Conference for the CCW. See Henckaerts and Doswald-Beck, note 91, *supra*, 290.

¹⁹⁹ US Field Manual (1956) paragraph 36.

²⁰⁰ US Air Force Pamphlet (1976), para 6-6(c).

With the various statements, from the US and other states, the ICRC concludes that a customary rule has developed prohibiting incendiary weapons use against combatants if such use would cause unnecessary suffering, ie, if it is feasible to use a less harmful weapon to render a combatant *hors de combat*.²⁰¹

ii. Unnecessary Suffering

The determining factor for the above rule is whether unnecessary suffering was caused. The prohibition against this exists in both treaty and customary law. Article 35 of the 1977 Additional Protocol I to the 1949 Geneva Conventions states that:

- “1. In any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited.
2. It is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering.”

The ICRC study has included this prohibition in its study of customary international humanitarian law. Rule 70 states “The use of means and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering is prohibited.”²⁰²

Importantly, the International Court of Justice in the *Nuclear Weapons Advisory*

²⁰¹ Henckaerts and Doswald-Beck, note 91, *supra*, 291.

²⁰² Henckaerts and Doswald-Beck, note 91, *supra*, 237.

*Opinion*²⁰³ (1996) held that the rule prohibiting unnecessary suffering to combatants was a cardinal principle and that this outlawed certain weapons irrespective of whether they were specifically prohibited by treaty or not.²⁰⁴

The two quoted paragraphs of this Article must be read together. Paragraph 1 provides a general prohibition, whereas paragraph 2 specifies an implementing rule derived from the principles in Paragraph 1. According to Bothe, Partsch and Solf, the prohibition in Paragraph 1 contains two limitations on the choice of methods and means of warfare. These include such rules as prohibiting poisoned weapons, the use of weapons and methods of warfare of a nature to cause superfluous injury or unnecessary suffering; perfidious killing, wounding, or capturing of enemy combatants; attacks on civilians, and so forth.²⁰⁵ The second layer of limitations provides the two complementary principles of necessity and humanity, which are the foundation for the international humanitarian law. Necessity justifies those measures of military violence not forbidden by international law, which are relevant and proportionate to securing the prompt submission of the enemy with the least possible expenditure of economic or human resources.²⁰⁶ Balancing this, humanity forbids those measures of violence that are not necessary (that is, relevant and proportionate) to the achievement of a definite military advantage.²⁰⁷ Applying this limitation to the rule in Paragraph 2, the balance is between necessity, on the one hand,

²⁰³ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 26.

²⁰⁴ Judith Gardam, *Necessity, Proportionality and the Use of Force by States* (2004) 72.

²⁰⁵ Bothe, Partsch, Solf, note 178, *supra*, 194.

²⁰⁶ *Id.* 194-195.

²⁰⁷ *Id.* 195.

and the expected injury or suffering inflicted on the person on the other.²⁰⁸ The test becomes whether the suffering is needless, superfluous, or manifestly disproportionate to the military advantage reasonable expected from the use of the weapon.²⁰⁹ The International Court of Justice defined unnecessary suffering as “a harm greater than that unavoidable to achieve legitimate military objectives.”²¹⁰ An additional consideration is whether alternative means can be used to achieve the same military objective.

The term ‘suffering’ has proven difficult to define. Generally speaking, suffering is considered to include both the physical and psychological effects of weapons, the long-term nature of the injuries, the painfulness or severity of the wounds, mortality rates and the treatment available in conflict situations.²¹¹

The ICRC study created a list of methods and means of warfare that could be considered to fall under this rule, which included among others incendiary weapons.²¹² There was not, however, sufficient agreement to establish that they were prohibited.

5.3 Application to Fallujah

A number of questions must be answered in order to ascertain whether the US violated international law regarding use of an incendiary weapon in Fallujah. Firstly, is white

²⁰⁸ Henckaerts and Doswald-Beck, note 91, *supra*, 240.

²⁰⁹ Bothe, Partsch, Solf, note 178, *supra*, 196.

²¹⁰ Henckaerts and Doswald-Beck, note 91, *supra*, 238.

²¹¹ Gardam, note 200, *supra*, 72. Also see Bothe, Partsch, Solf, note 178, *supra*, 196.

²¹² Henckaerts and Doswald-Beck, note 91, *supra*, 244.

phosphorus in the manner used considered an incendiary weapon? Secondly, irrespective of not being a State Party to Protocol III, did the US actions comply with the treaty's requirements? Thirdly, did the US adhere to the rules of customary international law regarding incendiary weapon use? These three questions will be discussed in turn.

Firstly, according to Protocol III, for a substance to be an incendiary weapon, it must be “[...] primarily designed to cause burn injury to persons through the action of flame, heat or combination thereof [...]”. Burning white phosphorus particles are an incendiary weapon. Upon contact with exposed skin or mucus membranes, it causes burn injuries through the action of heat and flame. Its employment was not as its other purpose of a smokescreen, rather, its utilization involved an intention to exploit its incendiary qualities. Furthermore, the substance must not be expressly excluded as a weapon with incidental incendiary effects under Article I(1)(b) of the Protocol. The ‘shake and bake’ missions were not using the incendiary qualities of white phosphorus as an incidental effect. Rather, those qualities were the primary purpose of their use. Therefore, white phosphorus is not excluded from the definition, and is considered an incendiary weapon under the Protocol.

Secondly, although not being bound by the provision of Protocol III, did the US comply with its requirements? There are three prohibitions relevant to the present discussion. The first is whether civilians were made the object of the attack, as prohibited by Article 2(1) and customary law. The evidence does not support such a conclusion. In all the accounts, the object of attack for the US forces were the suspected insurgents, not the civilians. The

second prohibition in Article 2 bans the use of air-delivered incendiary weapons against military objectives located in a concentration of civilians. Again, there is no evidence suggesting that the US fired white phosphorus from air-delivered systems. The accounts relied upon refer to US forces firing white phosphorus from mortars. The third prohibition bans attacking military objectives located in a concentration of civilians with non-air-delivered mechanisms unless the civilians are clearly separated from the military object and all feasible precautions are taken to limit incendiary effects to the military objective, thereby minimizing incidental loss or injury of civilians. From the accounts, it appears that this provision has been violated. The US forces fired white phosphorus from ground delivered systems without knowing what target they were hitting. During the assault, US Marines reported a significant civilian presence in Fallujah. Judging from the nature of urban warfare, it is unlikely that they were clearly separated from the military objectives. It is likely that there was no intention of killing or injuring civilians through such actions. However, the use of an incendiary weapon in an urban combat situation where civilians were still clearly present is a violation of Article 2(3). In addition, as the US government has not released information regarding its operational handling of the Fallujah assault, it is unclear whether or what precautions were taken by US commanders to limiting the effects of white phosphorus to combatants. Nonetheless, the method of deployment, the indiscriminate nature of the agent, and the urban setting, do not support the view that all feasible precautions were undertaken. According to the Protocol, feasible precautions include all those practicable or practically possible taking into account all circumstances ruling at the time. Further precautions should have been undertaken to confirm the military nature of the target. As the US is not party to Protocol III and Article

2(3) is not part of customary law, this provision has merely the status of a non-binding guideline, and its violation will have no real consequences for the US.

However, customary law binds the US and evidence suggests that violations of this law occurred. Firstly, the US breached the customary norm that particular care must be taken to avoid and minimize incidental loss or injury to civilians. Although mirroring Article 2(3) above, this law is more lenient and allows some collateral damage provided all feasible precautions are taken to avoid or minimize it. As mentioned above, there is no evidence of feasible precautions being taken during the ‘shake and bake’ missions. Its method of employment shows an utter lack of precautionary measures as those being fired upon could (and many cases were) civilians. The reports also suggest that white phosphorus did injure and kill civilians. Furthermore, the principle of distinction outlaws any indiscriminate attacks against civilians. White phosphorus’s utilization involved a method and means of combat the effects of which cannot be limited as required by Protocol I.²¹³ Furthermore, due to the urban setting, the attacks could be expected to cause incidental loss and injury to civilians. Such assaults were excessive to the concrete and direct military advantage as it involved firing an incendiary weapon in a setting where civilians and combatants were mixed in the hope that those fleeing were insurgents. This amounts to a violation of the principles of proportionality and distinction. The US actions also violated their own military manuals which required that if other more effective weapons causing less suffering were available, such should be used in place of incendiaries. A statement in the *Field Artillery* article suggests that other

²¹³ Additional Protocol I, Article 54(4)(c).

weapons were available, but that they were used only to save the white phosphorus for lethal missions. This shows the intent for which white phosphorus was exploited. Any commander would have been aware of the inherent risks of such actions to the civilian population.

The same consideration regarding choice of a less harmful weapon is central to the customary rule that the anti-personnel use of an incendiary weapon is prohibited, unless it is not feasible to use a less harmful weapon to render a person *hors de combat*. Injury and death by white phosphorus would involve unnecessary and superfluous suffering.

However, the law states that it is not unlawful to kill combatants with incendiaries unless other weapons are available which are less harmful. As mentioned earlier, other weapons were allegedly available, however, such a determination remains for the commander on the field to make. With little battle information in the public domain, it is out of the scope of this paper to analyse this issue. If it were found that other weapons and tactics could have been used, it would only further indict the US forces for their actions in Fallujah.

In summary, the evidence suggests that the US violated its customary obligations to protect the civilian population. It used an indiscriminate weapon in an environment where civilians and combatants were mixed, thereby violating its obligations under the law of armed conflict. More facts are required to ascertain whether the use against combatants was unlawful.

6.0 Conclusion

The use of white phosphorus in Fallujah was in violation of a number of international treaty and customary obligations binding upon the US armed forces. The white phosphorus smoke was used in a manner inconsistent with the US obligations under the CWC, that is, its use as a precursor chemical and as a riot control agent as a method of warfare. It thus amounted to the use of a chemical weapon. There is some irony in this conclusion considering that Iraq never used chemical weapons against the US and UK despite the overly touted allegations that Saddam Hussein had chemical and biological weapon stockpiles. The US also violated its obligations under the customary rules regarding the use of an indiscriminate incendiary weapon in a mixed civilians and combatant setting. Different weapons and tactics should have been used to avoid civilian casualties and the violation of international law of armed conflict. However, the expected consequences for the US forces are minimal. The US government must prosecute the perpetrators under its code of military justice. It is unlikely that any action will be taken internationally by other states or relevant international organizations on this issue due to the highly politically charged nature of the Iraq war and the US secrecy of its methods and means of warfare. Changes to the US rules of engagement and military manuals, as well as better training for its soldiers, would be the most effective way to avert future violations.