## II. Allegations of use of chemical weapons in Iraq and by North Korea

## JOHN HART

## Iraq

In October 2016 the Iraqi Army began a major campaign to regain control of Mosul, in northern Iraq, from the Islamic State group. On 3 March 2017 the International Committee of the Red Cross (ICRC) condemned the use of chemical weapons in Mosul.<sup>1</sup> The ICRC stated that seven patients had symptoms 'consistent with exposure to a toxic chemical agent' and were being treated at Rozhawa hospital, where ICRC medical staff were assisting.<sup>2</sup> While the ICRC did not attribute blame for the use of chemical weapons, the attacks appeared to be launched from areas held by the Islamic State.<sup>3</sup> On 10 March, however, Iraq's Ambassador to the United Nations, Mohamed Ali Alhakim, stated there was 'no evidence' that the Islamic State had used chemical weapons in Mosul.<sup>4</sup>

There have also been reports that evidence was found in January 2017 that Islamic State personnel had converted chemistry laboratories at Mosul University to produce chemical weapons.<sup>5</sup> After parts of Mosul were recaptured, Iraqi forces reportedly found sulphur mustard and Russian-made surface-to-surface missiles in the city.<sup>6</sup> Brigadier General Haider Fadhil of the Iraqi Army stated that French specialists had found that a chemical sample taken from Mosul had tested positive for sulphur mustard agent.<sup>7</sup> Fadhil added that a chemical weapon production facility had originally been located in the ruins of Nineveh, on the outskirts of Mosul, but was subsequently moved to a residential neighbourhood to improve operational security.<sup>8</sup> Iraqi officials stated that it appeared that Islamic State personnel had been attempting to fill missiles with the agent.<sup>9</sup> In June 2017 Brigadier General Hajar Ismail stated that there were thousands of tonnes of sulphur and chlorine around Al Mishraq that the Iraqi security forces need to protect.<sup>10</sup>

<sup>&</sup>lt;sup>1</sup> ICRC, 'Iraq: ICRC strongly condemns use of chemical weapons around Mosul', Press release, 3 Mar. 2017; and Hart, J., 'Allegations of use of chemical weapons in Iraq', *SIPRI Yearbook 2017*, pp. 523–25.

<sup>&</sup>lt;sup>2</sup> ICRC (note 1).

<sup>&</sup>lt;sup>3</sup> "First chemical attack" in Mosul battle injures twelve', BBC News, 3 Mar. 2017.

<sup>&</sup>lt;sup>4</sup> 'Iraq says "no evidence" of chemical weapons attacks in Mosul', Reuters, 10 Mar. 2017.

<sup>&</sup>lt;sup>5</sup> 'Iraqi forces discover chemical warfare agent in Mosul', Associated Press, 28 Jan. 2017.

<sup>&</sup>lt;sup>6</sup> 'Iraqi forces discover chemical warfare agent in Mosul (note 5).

<sup>&</sup>lt;sup>7</sup> 'Iraqi forces discover chemical warfare agent in Mosul (note 5).

<sup>&</sup>lt;sup>8</sup> 'Iraqi forces discover chemical warfare agent in Mosul (note 5).

<sup>&</sup>lt;sup>9</sup> 'Iraqi forces discover chemical warfare agent in Mosul (note 5).

<sup>&</sup>lt;sup>10</sup> Winfield, G., 'What came next', *CBRNe World*, June 2017, p. 22.

Further analysis was conducted of the nature of the Islamic State's research and development and its weapon-production capacity, including of improvised explosive devices.<sup>11</sup> The Islamic State sought to standardize weapon components, including injection-moulded munition fuses, shoulder-fired rockets, mortar rounds, modular bomb parts and plastic-bodied landmines.<sup>12</sup> Unfired rocket-propelled grenades were found in Mosul that contained 'a crude blister agent resembling sulfur mustard'.<sup>13</sup> Conflict Armament Research (CAR), a London-based organization, and others have recovered documentation and visited facilities that show that the Islamic State engaged in 'a system of armaments production that combined research and development, mass production and organized distribution to amplify [the group's] endurance and power'.<sup>14</sup> CAR found no clear evidence that chemicals had been used by the Islamic State for anything other than explosives manufacture.<sup>15</sup>

Finally, PAX, a Dutch non-governmental organization, sought to further document the environmental effects of the burning of elemental sulphur at the Mishraq Sulphur Plant near Mosul. It reported that the Islamic State undertook the development of chlorine and sulphur mustard at the Al-Hekma pharmaceutical complex, north of Mosul.<sup>16</sup>

## North Korea

Kim Jong Nam, half-brother of Kim Jong Un, the leader of the Democratic People's Republic of Korea (DPRK, or North Korea), was assassinated at Kuala Lumpur International Airport on 13 February 2017.<sup>17</sup> Two attackers applied a substance understood to be VX onto his face. North Korean authorities denied responsibility for the act.<sup>18</sup>

<sup>11</sup> Ismay, J., Gibbons-Neff, T. and Chivers, C. J., 'How ISIS produced its cruel arsenal on an industrial scale', *New York Times*, 10 Dec. 2017.

<sup>12</sup> Ismay, Gibbons-Neff and Chivers (note 11).

<sup>17</sup> Fifield, A., 'North Korean leader's half brother killed in Malaysia in possible poison attack, police say', *Washington Post*, 15 Feb. 2017. On the legal status of assassination in international human rights law see Murray, D., *Practitioners' Guide to Human Rights Law in Armed Conflict* (Oxford University Press: Oxford, 2016), section 5.171, p. 159.

<sup>18</sup> Korea Central News Agency (KCNA), 'US, S. Korea's absurd sophism against DPRK over its citizen's death abroad blasted', 1 Mar. 2017.

<sup>&</sup>lt;sup>13</sup> Ismay, Gibbons-Neff and Chivers (note 11).

<sup>&</sup>lt;sup>14</sup> Ismay, Gibbons-Neff and Chivers (note 11).

<sup>&</sup>lt;sup>15</sup> Conflict Armament Research (CAR), Weapons of the Islamic State: A Three-year Investigation in Iraq and Syria (CAR: London, Dec. 2017).

<sup>&</sup>lt;sup>16</sup> Zwijnenburg, W. and Postma, F., *Living Under a Black Sky: Conflict Pollution and Environmental Health Concerns in Iraq* (Colophon: Utrecht, Nov. 2017), pp. 16–18. The information in the report is based on media reports.

Malaysian authorities undertook decontamination work at the airport and on 26 February declared it safe.<sup>19</sup> The Organisation for the Prohibition of Chemical Weapons (OPCW) provided Malaysia with 'technical materials to assist with [its] internal investigation'.<sup>20</sup> No authoritative information has been published on the sampling and analysis work.<sup>21</sup>

During the trial of the alleged attackers, it was revealed that Kim Jong Nam had been carrying 12 atropine tablets at the time of the attack.<sup>22</sup> (atropine can be used to treat cases of organophosphate poisoning and is normally administered intravenously).

The US Treasury identified Korea Ryonbong General Corporation (Ryonbong) as specializing in acquisitions for North Korea's defence industries and providing support for its military-related sales. It concluded that the organization's procurements 'probably support North Korea's chemical weapons program'.<sup>23</sup>

<sup>19</sup> Sipalan, J. and Teo, A., 'Malaysia declares airport safe for travel after nerve agent attack', Reuters, 26 Feb. 2017.

 $^{20}$  OPCW, 'Opening statement by the Director-General to the Executive Council at its eighty-fourth session', EC-84/DG.26, 7 Mar. 2017, para. 9, p. 2.

<sup>21</sup> Chai, P. R. et al., 'Toxic chemical weapons of assassination and warfare: Nerve agents VX and sarin', *Toxicology Communications*, vol. 1, no. 1 (2017), pp. 21–23.

<sup>22</sup> Harris, B., 'Kim's poisoned half-brother was carrying antidote, court told', *Financial Times*, 2–3 Dec. 2017, p. 6.

<sup>23</sup> US Department of the Treasury, 'Treasury sanctions agents linked to North Korea's weapons of mass destruction proliferation and financial networks', Press release, 31 Mar. 2017.