

“Certainly, the Court appreciates the potential dangers associated with individuals possessing potentially hazardous agents and toxins without permission to do so. Equally, though, the Court takes very seriously the principle that citizens ought to have fair and clear warning of the conduct for which they can be held criminally responsible. It falls to Congress to write criminal laws, or to amend them if they yield unfair or unwanted results.”¹

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B R I E F

Judicial enforcement of BWC and CWC implementing legislation

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“Action at the international level is insufficient on its own to address the threat of chemical and biological weapons.”

Introduction

On 23 December 2005, the District Court of The Hague Criminal Law Section found a Dutch businessman guilty of complicity in war crimes for selling large amounts of chemicals to the Iraqi government from 1984 to 1988. The court found that the mustard gas used in war crimes by Saddam Hussein’s forces after 1 May 1987 had been created with the chemicals supplied by the businessman. The man had sourced thiodiglycol, a key component in the manufacture of mustard gas, from the US and Japan, organising shipments through a number of countries to circumvent export control laws. He was sentenced to 15 years’ imprisonment, raised to 17 years by the Court of Appeal.

While this case illustrates the global nature of the threat of CBRN weapons and the supply chains that sustain them, and highlights the devastating consequences of attacks using such weapons, the episode also highlighted the importance of having appropriate legislation in place to convict alleged perpetrators. Here, Dutch prosecutors had to prove that the thiodiglycol sold by the accused was used to produce the Iraqi forces’ chemical weapons and also that the man had individual criminal responsibility for the war crimes. This proved a complicated process, requiring a difficult investigation and evidence gathering and under different circumstances the prosecution may not have been able to obtain evidence demonstrating the required causality. The crimes in question occurred in the 1980s, prior to the entry into force of the 1993 Chemical Weapons Convention (CWC); prosecuting the defendant under comprehensive legislation implementing the CWC and criminalising activities such as transferring certain toxic chemicals without authorisation would have been considerably easier.

The CWC and the 1972 Biological and Toxin Weapons Convention (BWC) are

two pillars of the global disarmament regime that ban entire categories of weapons. However, action at the international level is insufficient on its own to address the threat of chemical and biological weapons. States Parties to both Conventions are obliged to implement obligations under the treaties. Article IV of the BWC requires States Parties to take necessary measures to prohibit and prevent biological weapons² and Article VII of the CWC requires all States Parties to adopt the necessary measures to fulfil their obligations under the Convention, especially appropriate penal legislation. As such, the drafting and adoption of legislation is a central part of implementation of two treaties.

The drafting and adoption of legislation to implement the BWC and the CWC is an essential tool to prevent the proliferation of biological and chemical weapons and to provide accountability for misuse of relevant materials. In order to examine the importance of and effectiveness of such legislation it is useful to assess real life case studies involving the application of such BWC and CWC implementing legislation in practice.

Courts seek to resolve specific disputes between parties through the application of law and the determination of fact. Furthermore, they can influence the development of the law, by helping to interpret provisions of national legislation or develop legal concepts. In relation to legislation implementing the BWC and CWC, courts are often called to assess criminal liability for alleged violations of penal legislation related to chemical or biological materials, adjudicate on civil disputes related to such materials, or judge administrative cases on such matters for example for violations of licensing requirements.

Since 2012 VERTIC’s National Implementation Measures (NIM) Programme has researched and published our analysis of BWC and CWC related court cases in

our flagship publication *Trust & Verify* and elsewhere. We then adapted these analyses for use as case studies in our legislative assistance activities to states. Our case law analyses are therefore both a research product and an assistance tool.

Case law analyses can help to identify best practices for creating or improving legislative frameworks to control biological agents, toxins, toxic chemicals and their precursors, and related materials. Cases show in vivid detail how the law applied in practice can be used to ensure accountability and how enforcement measures can help to secure prosecutions for relevant crimes. Further, court cases can demonstrate gaps in legislation and highlight legislative errors, leading to legislative amendments in the future.

As such, this Brief will detail three court cases, from the US, Germany and the UK, to demonstrate how legislation implementing the treaties works, or does not work, in practice. Then the Brief will identify a number of overarching lessons that can be learned from the court cases examined. Finally, the Brief will provide a number of recommendations for stakeholders to enhance the drafting and adoption of national legislation to implement the BWC and the CWC.

Case 1: Prosecutions for possession of a biological weapon in Germany³

“There were very concrete preparations for such an act using, if you will, a biological bomb [. . .] This is a first in Germany.”⁴

In June 2018, German police raided a flat in Cologne, after receiving a tip off from a foreign country that is a security partner that a man had ordered a large quantity of castor seeds over the internet. Over 3000 castor seeds were found in the apartment, along with other 80 milligrams (mg) of ricin. The married couple living in the flat were later charged in February 2019

with a number of offences related to a plot to release the toxin ricin as part of a terrorist attack. Ricin is a deadly toxin found in castor seeds, a dose of less than 1mg of which can be lethal to humans. As such, activities with ricin that are not for peaceful purposes are prohibited by the BWC and CWC.

During the trial of the man, as the primary perpetrator in the plot, the court found that the defendant had tried to travel to Syria to join Da'esh/Islamic State in Iraq and Syria (IS) a terrorist organisation. The man was further found to have researched toxins on the internet, and was in regular contact with people to receive instructions on how to obtain ricin from castor seeds. The couple attempted to create ricin, following instructions that had been released by a media organisation close to IS. The court suggested that with optimal application, the amount of ricin that could have been produced from the castor seeds seized was enough to kill around 13500 people.

Ultimately, the Higher Regional Court of Düsseldorf found the man guilty of preparing a serious violent offence dangerous to the state under Section 89a paragraph 2a of the Criminal Code and of deliberately manufacturing a biological weapon under Section 20 paragraph 1 of the War Weapons Act and sentenced the man to 10 years' imprisonment on 26 March 2020. He subsequently appealed, but the appeal was rejected. At a separate trial, the woman was similarly found guilty of deliberately producing a biological weapon, alongside preparing a serious violent offence dangerous to the state and aiding and abetting in preparing a serious state-endangering act. She was sentenced to a total of 8 years' imprisonment on 26 June 2020.

Firstly, this case shows that national authorities must be prepared to counter the threat of domestic actors potentially seeking to use biological or toxin weapons. The quote at the beginning of this section from the president of Germany's

“Court cases can demonstrate gaps in legislation and highlight legislative errors, leading to legislative amendments in the future.”

“International cooperation is key to stopping the misuse of biological agent and toxins.”

Federal Criminal Police Office demonstrates that this was a unique case in Germany. Nevertheless, similar cases but under different circumstances of individuals attempting to use ricin as a weapon have been recorded recently in the UK⁵ and the US.⁶ With terrorist actors such as IS disseminating online materials to support the creation of biological and toxins weapons, law enforcement authorities need to be aware of the threat and have the necessary tools to address it.

Secondly, this case highlights the importance of criminal legislation to implement the BWC. It was critical in this case, as it provided prosecutors with the necessary tools to secure a conviction. Germany has implemented the BWC in its national legislation since joining the Convention in 1983. It adopted the Law on the BWC that year and further in 1989 amended its War Weapons Control Act to criminalise activities with biological weapons. Under Article I of the BWC, biological weapons are defined on the basis of purpose (the ‘general purpose criterion’).

Section 1 of the War Weapons Control Act states that for the purposes of the Act, relevant weapons are defined under the Annexed War Weapons List. Part A of the War Weapons List contains “War Weapons that the Federal Republic of Germany undertakes not to manufacture (Nuclear weapons, biological and chemical weapons)”. Part A of the War Weapons List states that “civilian purposes or for scientific, medical and industrial research in the fields of pure and applied science shall be excluded from this definition. The substances and organisms of numbers 3 and 5, as far as they serve the purpose of prevention, protection and proof shall also be excluded.” As such, Germany implements the general purpose criterion and defines biological weapons in line with the BWC. Under the German framework, ricin is considered a biological weapon if not used for peaceful purposes.

Both the man and the woman arrested were able to be convicted under the War Weapons Act for the manufacturing of a biological weapon. Under Section 18 of the War Weapons Act, it is forbidden to “develop, produce or trade in biological or chemical weapons, to acquire them from or transfer them to another person, to import or export them, to transport them through or otherwise bring them into or out of federal territory, or otherwise to exercise actual control over them, [. . .]”, mirroring the prohibitions in Articles I and III of the BWC. Section 20 of the Act states that a prison sentence of not less than two years is to be imposed upon anyone who undertakes the aforementioned activities involving biological weapons.

Finally, the case illustrates how international cooperation is key to stopping the misuse of biological agents and toxins. The information that led to the arrest of the couple came after a tip off from a foreign security partner. Recent cases have demonstrated that those seeking to acquire biological weapons are often using the internet for procurement, and sometimes seek to have materials sent from different countries. It is therefore necessary for states to have measures in place enabling cooperation and assistance with law enforcement agencies of other states in the event of an incident involving dangerous biological agents and toxins.

Case 2: First UK prosecution for possession of a chemical weapon

“Mustard gas is extremely toxic, so dumping it in a lake near people’s homes and in a popular woodland enjoyed by Scouts and dog-walkers was appallingly dangerous.”⁷

In a case that received considerable media attention, three people were imprisoned in 2020 for possession of a chemical weapon, after finding mustard gas from the Second World War in woodlands in Lincolnshire,

the United Kingdom and failing to notify authorities.

Evidence presented to Nottingham Crown Court demonstrated that two of the trio, a married couple, were collectors of military memorabilia who came across a box containing mustard gas canisters in September 2017, in an area of land that had been historically used by the UK Ministry of Defence. The pair returned 10 days later with a friend to excavate the mustard gas, even opening one bottle. The group were advised by another friend with a military background that the containers contained mustard gas and that they should alert the relevant authorities. However, the group had already poured three bottles onto the ground and proceeded to take some of the canisters home without notifying any governmental authorities. Later the same day, the group decided to covertly dump the canisters, rowing out into the middle of a lake and dropping the canisters there so that they would sink to the bottom.

The following day, the married couple sought medical treatment, complaining of blisters and breathing difficulties. They then alerted police about the situation; however, they lied about the circumstances of the exposure and did not tell the law enforcement officers about the substances that they had dumped in the lake. A subsequent operation was launched to respond to the incident, involving 27 agencies to recover the canisters and protect local residents. The mustard gas was eventually recovered, after military divers retrieved the canisters from the bottom of the lake.

Mustard gas is a toxic chemical that is controlled under the CWC. It is listed under Schedule 1 to the Convention and as such is in the class of toxic chemicals subjected to the most stringent controls in the treaty regime. Under the CWC's Annex on Chemicals guidelines for Schedules of Chemicals, when considering

whether a toxic chemical or precursor should be included in Schedule 1, a relevant criterion is whether “[i]t has been developed, produced, stockpiled or used as a chemical weapon as defined in Article II.” The use of mustard agents was widespread during the First World War and as demonstrated in the introduction, was also used during the Iran-Iraq war amongst other conflicts.

All three of the people involved in the episode were charged under Section 2(1)(c) of the Chemical Weapons Act 1996 with possession of a chemical weapon, among other offences related to environmental protection and one man was also charged with illegal possession of firearms. All three pleaded guilty, with one man receiving a 16 month prison sentence for possession of chemical weapon and the other two receiving 12 month suspended sentences for their supporting roles in the offence.

This was the first criminal prosecution for possession of a chemical weapon⁸ in the United Kingdom under the Chemical Weapons Act 1996. The Act implements the CWC, creating a system of control for toxic chemicals. Section 2 of the Chemical Weapons Act criminalises the use, development, production, possession, transfer or military preparation for the use of chemical weapons, in line with Article 1(1) of the Convention. The mustard gas in question was considered to be a chemical weapon for the purposes of the Chemical Weapons Act 1996. Section 1 of the Act defines chemical weapons in line with the definition under Article II of the CWC, stating that “[c]hemical weapons are—(a) toxic chemicals and their precursors; (b) munitions and other devices designed to cause death or harm through the toxic properties of toxic chemicals released by them; (c) equipment designed for use in connection with munitions and devices falling within paragraph (b).” The provision further

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“When legislative drafters make mistakes, the consequences can be grave.”

elaborates on permitted purposes under which an object would not be considered a chemical weapon.

This case shows therefore, that it is important for CWC States Parties to draft comprehensive legislation to criminalise the full range of activities under the Convention, and not just the use of chemical weapons. When sentencing the trio for possession of a chemical weapon, the judge noted that in this instance “the potential of harm from the mustard gas was of a very high order”. Even when chemical weapons are not used, their toxic nature means that they can cause great harm to people and the environment. As such criminalising the possession of such weapons is necessary to safeguard against their harmful effects. Through a transposition of Article II of the Convention, the Chemical Weapons Act 1996 criminalises the use, development, production, possession, transfer or military preparation for the use of chemical weapons. The prosecutors in this case therefore had the necessary legislative apparatus to charge the perpetrators under domestic criminal law.

Further, this case illustrates the linkages between chemical weapons offences and other criminal offences and the importance of cooperation at the national level. This prosecution was brought jointly by the Environment Agency and Crown Prosecution Service and the trio were also charged with offences under the Environmental Protection Act of 1990 and the Environment Permitting (England and Wales) Regulations 2016 for violations of environmental law when disposing of the chemical agents. Inter-agency cooperation was critical to the response to the crisis and also to securing prosecution for the crimes that had been committed. It is therefore important to ensure that measures are in place at the national level enabling co-operation and co-ordination between officials and agencies in the event of an incident involving chemical weapons.

Case 3: Error in US legislation to implement BWC⁹

“Under current law, the government cannot bring cases against individuals who possess or distribute biological toxins or agents that should be, but are not, included in the HHS list of prohibited substances.”¹⁰

The first two cases have demonstrated the importance of legislation to implement the BWC and the CWC by showing how prosecutorial authorities can successfully use legislation that accurately implements the treaties to hold alleged perpetrators accountable for offences related to the misuse of dangerous biological agents, toxins and toxic chemicals. This third case shows that when legislative drafters make mistakes, the consequences can be grave.

On 2 February 2017, a member of a white supremacist organisation was charged with violating Section 175b(c) of Title 18 of the US Code, for the unlawful possession of the toxin ricin. The man had driven himself to a hospital, seeking medical attention for exposure to ricin. As already stated above, ricin is a deadly toxin that can be harmful to humans even in small quantities. Section 175(b) of Title 18 criminalises the possession of a biological agent or toxin that is considered a “select agent”, unless the agent or toxin is registered with the US Secretary of Health and Human Services.

During the trial, the defendants’ lawyers stated that Section 175b(c) only referred to biological agents of toxins that are listed in Section 73.4 and 73.5 of Title 42, Code of Federal Regulations (CFR). However, ricin was not listed in either section of the CFR, as such could not be considered a “select agent” for the purposes of Section 175b(c) of Title 18 of the US Code, arguing that “the cardinal canon of statutory interpretation is that courts must presume that a legislature says in a statute what it means and means in a statute what it says.” The prosecution admitted that there was

an error in the legislation, but argued that Congress had intended to criminalise the unregistered possession of ricin, and that the error does not render the defendant's conduct lawful and refusing to recognise congressional intent would lead to absurd results.

The United States District Court for the Northern District of Georgia Gainesville Division ultimately found that Section 175b “cannot be read to criminalize the unregistered possession” as the language of the provision excluded ricin. Therefore, despite the man possessing the toxin ricin, he was not convicted of unlawfully possessing it because of an error in the legislation controlling the substance.

Soon after this judgment had been delivered, US legislators began work on legislation to amend this error. Two bills were drafted that were introduced to the House of Representatives and the Senate in March 2019, entitled *the Effective Prosecution of Possession of Biological Toxins and Agents Act 2019*. The process culminated in Public Law 116–3, given the full title of *An Act to amend section 175b of title 18, United States Code, to correct a scrivener's error* that became law on 25 July 2019. This new law amended Section 175b(c) of Title 18 of the US Code, which the new version referring to “part 73 of title 42, Code of Federal Regulations”, rather than just part 73.4 and 73.5, and as such the error was corrected and the possession of ricin without having registered with the Secretary of Health and Human Services was made a federal crime.

This case demonstrates the challenges when drafting legislation to implement the BWC and the consequences of legislative mistakes. During the adoption process for the amendment it was noted that:

“The “scrivener's error” that is corrected by H.R. 1986 has had real-life negative consequences as exemplified by its impeding the prosecution of at least one

person, [. . .], who possessed and may have manufactured ricin. This legislation corrects the error to ensure the effective prosecution of individuals who carry out these kinds of activities.”¹¹

Drafting legislation to implement the BWC can be complex, requiring penal measures, biosafety and biosecurity measures, transfer control measures and enforcement measures. Often in practice, states will draft a number of laws and regulations containing such measures, many of which will refer to each other. The usage of control lists for dangerous agents and toxins is further commonplace. It is therefore imperative that the various legal instruments all work together in practice, to ensure a functioning framework to implement the BWC. Legislation should be clear and easily understandable, so the subjects of the law know what conduct is unlawful. Clear legislation also aids legal professionals such as judges and lawyers to apply the law. Legislative errors can impede prosecutions and allow lawbreakers to avoid conviction.

Implementing legislation for the BWC should be monitored and reviewed regularly. Legislation will often have to be updated to reflect changes in science and technology, this is especially true for control lists. In this case study, the legislative error occurred because of updates to the CFR, which were not reflected in Section 175b(c) of Title 18. Legislative implementation of the BWC is therefore a continuous process, which requires sustained effort.

Lessons learned and recommendations for BWC and CWC States Parties

A number of lessons can be learned from the analysis of national legislation to implement the BWC and CWC and how it works in practice. Such lessons can allow state

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representatives to identify best practices for developing or improving legislative frameworks to control biological agents and materials, toxic chemicals and their precursors and related materials.

Firstly, it is clear that national legislation to implement the two Conventions has real benefits for a state’s national security. In the first and second case studies, both Germany and the UK had drafted legislation to implement the BWC and CWC respectively, including relevant penal measures. When the two scenarios occurred, prosecutors were able to use the necessary legislative tools to secure convictions for unlawful activities involving a toxin and a toxic chemical.

The two cases examined also demonstrate that when drafting legislation to implement the BWC and CWC, states need to ensure that the full range of activities prohibited under the two treaties are criminalised in national legislation. In the UK case, the Crown Prosecution Service secured the first prosecution in the country for possession of a chemical weapon. The perpetrators in question found the mustard gas and then subsequently dumped it, so could not be prosecuted for the development or use of a chemical weapon for example. Moreover, in the case in Germany, law enforcement agents intervened before the perpetrators could use the ricin, and as such it was important that Germany had codified the prohibition against the production of a biological weapon. Had either state failed to ensure that their legislation covered either possession or production, then convictions may not have been possible.

In addition, the first two case studies demonstrate the importance of cooperation at both the national and international level. International cooperation was key in the Germany case, to tip off German security services of suspicious purchases of castor beans. In the UK case, the response

to the chemical emergency was a multi-agency endeavour and the prosecution for the crimes that had been committed was a joint effort from the Crown Prosecution Service and the Environment Agency. Chemical and biological weapons can have wide ranging consequences and coordination is vital to ensuring an appropriate response.

The case study from the US additionally highlights the importance of correct national legislation that is easy to understand and the consequences of legislative mistakes. Drafting legislation to implement the BWC and CWC is often complex and their States Parties should ensure that all legal instruments are clear and understandable. Legislative updates are necessary, to take into account the latest advances in science and technology. However, legislative drafters must be careful to ensure that updates do not lead to inconsistencies in legislation.

Finally, the case studies presented in this Brief highlight the need for awareness raising on BWC and CWC implementing legislation to national stakeholders. Legislation to implement the two treaties is often technical and as such requires specialist knowledge. Therefore, such legislation is sometimes not well understood at the national level, even among prosecutors, judges and defence lawyers who do not deal with related issues on a daily basis. To further implementation of the BWC and CWC, States Parties should undertake awareness raising activities, so that national stakeholders understand their legal obligations.

Recommendations

In light of the case studies analysed in this Brief and the lessons learned from their analysis, a number of recommendations can also be made to States Parties to the two treaties to reinforce their implementation at the national level.

States Parties to the BWC and CWC that have not drafted legislation to implement the two treaties are recommended to:

- Draft comprehensive legislation to fully implement the BWC and CWC to fulfil international obligations under the two treaties and increase national security;
- Liaise with the Organisation for the Prohibition of Chemical Weapons (OPCW) and the BWC Implementation Support Unit, in order to facilitate international cooperation;
- Make use of assistance programmes available to draft such legislation if necessary, such as the legislative assistance activities offered by VERTIC's National Implementation Measures Programme.

States Parties to the BWC and CWC that have drafted legislation to implement the two treaties are recommended to:

- Assess their legislation to ensure that it meets the implementation requirements of the two treaties. Stakeholders may wish to use VERTIC's legislative analysis tools for the [BWC](#) and [CWC](#) to undertake such an assessment;
- Review their legislation regularly, in light of advances in science and technology;
- Ensure that any updates to legislative measures to implement the two treaties do not create gaps or inconsistencies in the legal framework;
- Ensure that the full range of prohibitions under the two treaties are criminalised at the national level;
- Raise awareness of legislation within the life sciences, industrial and legal communities;
- To increase confidence and transparency, legal measures adopted to give effect to the BWC should be reported under Confidence Building Measures (CBM) Form E, and legal measures adopted to give effect to the CWC should be reported to the OPCW;
- Reference legal measures adopted to give effect to the two treaties in a report submitted to the Committee established pursuant to UN Security Council Resolution 1540 on steps taken to implement the resolution, as there are overlaps between the biological weapons and chemical weapons related provisions of the resolution and the BWC and CWC;
- Share lessons learned with other States Parties to the BWC and CWC, as appropriate;
- Ensure that the legislation contains measures enabling cooperation and assistance with law enforcement agencies of other states in the event of an incident involving dangerous biological agents and toxins or toxic chemicals.

Endnotes

- 1 *US v Gibbs*, US District Court for the Northern District of Georgia, Gainesville Division, Criminal Action No. 2:17-CR-005-RWS-JCF, Order, 21 September 2018.
- 2 Under the review of Article IV, the Final Document of the 8th BWC Review Conference notes: “11. The Conference calls upon States Parties to adopt, in accordance with their constitutional processes, legislative, administrative, judicial and other measures, including penal legislation (...)”.
- 3 See further *Couple charged with BW offence in Germany*, Thomas Brown, Trust and Verify Issue no. 164, Summer 2019 <https://www.vertic.org/wp-content/uploads/2019/07/TV164.pdf> and Case Study II: A Criminal Case in Germany, Sonia Drobyz and Yasemin Balci, EU EU Non-Proliferation and Disarmament eLearning Course, Learning Unit 17 – Non-Proliferation and Disarmament Law, Chapter IV: National Enforcement of Non-Proliferation and Disarmament Law, <https://nonproliferation-elearning.eu/learningunits/disarmament-law/>.
- 4 *First planned biological bomb attack on Germany confirmed*, Handelsblatt, 20 June 2018, <https://www.handelsblatt.com/english/politics/thwarted-plot-first-planned-biological-bomb-attack-on-germany-confirmed/23582488.html?ticket=ST-3747761-FwUVqGFLzNo2hf2K3r2q-cas01.example.org>.
- 5 See *First conviction under UK's BWC Act*, Russel Moul and Yasemin Balci, Trust and Verify No.147, VERTIC, October – December 2014 <https://www.vertic.org/media/assets/TV/TV147.pdf>.
- 6 See *Vermont retiree indicted for unlawful possession of ricin*, Benjamin Reedman, Trust and Verify No.160, Spring 2018 <http://www.vertic.org/media/assets/TV/TV160.pdf>.
- 7 See Environment Agency press release: *Trio receive jail term for dumping mustard gas bombs in a Lincolnshire lake*, 12 June 2020 <https://www.gov.uk/government/news/trio-receive-jail-term-for-dumping-mustard-gas-bombs-in-a-lincolnshire-lake>.
- 8 Ibid.
- 9 See further, *Error in US biological weapons law leads to dropping of criminal charges*, Yasemin Balci, Trust and Verify No.162, VERTIC, Winter 2018 <https://www.vertic.org/media/assets/TV/TV162.pdf> and *Error in US biological weapons law corrected*, Yasemin Balci, Trust and Verify No.165, VERTIC, February 2020 https://www.vertic.org/wp-content/uploads/2020/02/TV165_REV2_WEB.pdf.
- 10 See *House Report accompanying H.R.1986 on the Effective Prosecution of Possession of Biological Toxins and Agents Act of 2019*, <https://www.congress.gov/congressional-report/116th-congress/house-report/141>.
- 11 See *House Report accompanying H.R.1986 on the Effective Prosecution of Possession of Biological Toxins and Agents Act of 2019*, <https://www.congress.gov/congressional-report/116th-congress/house-report/141>.

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