



Department
of Energy &
Climate Change

Annual Report for 2014 on the operation of the Chemical Weapons Act 1996



July 2015

ANNUAL REPORT FOR 2014 ON THE OPERATION OF THE CHEMICAL WEAPONS ACT 1996

Presented to Parliament pursuant to Section 33 of the Chemical
Weapons Act 1996

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Executive summary

Section 33 of the Chemical Weapons Act 1996 requires the Secretary of State to prepare, each calendar year, a report on the operation of the Act, and to lay a copy before each House of Parliament. This report provides information relating to provisions in the Act that ensure the effective implementation of the Chemical Weapons Convention (CWC).

The CWC UK National Authority (UKNA), based in DECC, is responsible for implementing the Act in the UK, its Crown Dependencies and Overseas Territories. The Act places legal requirements on all companies, universities, other entities and individuals that work with certain toxic chemicals to declare information required under the CWC, and to provide access to sites for verification of declarations by the Organisation for the Prohibition of Chemical Weapons (OPCW). In addition, the Act requires anyone wishing to produce, possess or use certain very toxic chemicals to obtain a licence to do so.

The UKNA liaises with approximately 400 organisations in the UK each year to coordinate information on chemical activities required under the Act. It also works closely with the OPCW, based in The Hague, Netherlands and collaborates with other Government departments in the development of UK policy on chemical-related non-proliferation issues.

2014 was an unprecedented year for the OPCW and for the international community in the implementation of the CWC. Syria's ratification of the Convention in 2013 led to a huge collaborative effort to remove and destroy Syria's declared chemical weapons programme. In less than twelve months, 98% of the 1300 tonnes of chemical weapons declared by Syria were destroyed, as well as associated munitions and production equipment. The UK is proud to have played its part in this success and details of this work are provided in this annual report, in addition to the usual undertakings that ensure the UK's compliance with the CWC.

The UK's role in the destruction of Syria's chemical weapons programme

As a result of an agreement reached between the United States and Russia, Syria joined the CWC in September 2013 and, soon afterwards, the UN Security Council and Executive Council of the OPCW agreed that Syria would have to destroy its entire chemical weapons programme by the middle of 2014. This was an unprecedented timescale given the time taken by other States Parties to destroy their chemical weapons stockpiles, but it was imposed on Syria because it had an active chemical weapons programme up to the moment of joining the Convention, had used chemical weapons and was in the midst of a bitter civil war.

Syria's chemical weapons production equipment and munitions were destroyed in-country under the supervision and verification of OPCW inspectors, but the security situation and pressing destruction deadlines meant that most of the 1300 tonnes of chemicals declared by Syria needed to be destroyed outside the country. This was also an exceptional decision since the CWC stipulates that a State Party's chemical weapons must be destroyed in-country: the ongoing civil war in Syria, however, prevented this.

Unusually, the chemical weapons stockpile declared by Syria was almost entirely comprised of precursor chemicals, rather than immediately usable warfare agents. This meant that the chemicals could be removed from Syria and destroyed at commercial facilities, although there were security, safety and environmental concerns which had to be addressed.

The UK Government was keen from the outset that the UK should play an active role in the destruction of the Syrian chemicals, and the Foreign Secretary announced in December 2013 that the UK would accept 150 tonnes of chemicals from Syria's stockpile for destruction. Following extensive delays by Syria in transporting the chemicals for shipment overseas, the UK subsequently agreed to receive and destroy an additional 50 tonnes of chemicals in order to reduce risks and costs to the international community.

On 23 June 2014, the final portion of Syria's declared chemical stockpile was removed from Syria, and transported by ship to the countries that had agreed to accept them, including the UK. Some 200 tonnes in total - comprising 150 tonnes of "B chemical" precursors, 44 tonnes of hydrochloric acid (HCl), and 6 tonnes of hydrogen fluoride (HF) - arrived in the UK on 15 July 2014. These were industrial-grade chemicals from the Syrian chemical weapons programme, not chemical weapon agents. No chemical weapon agents, munitions, or explosives were brought to the UK for destruction.

All interested Government Departments and Agencies, including the Environment Agency, Health and Safety Executive and Department for Transport, worked closely together alongside UK industry to ensure that all appropriate safety measures were taken throughout the process, from arrival of the chemicals at the UK port, onward transportation within the UK, temporary storage and final disposal.

The UK had destroyed most of the chemicals by the beginning of August 2014. The remaining chemicals transported to the UK were destroyed by the end of May 2015, and the OPCW officially verified complete destruction of the UK's share on 29 May 2015.

As a result of this action, the international community has been able to achieve one undoubted success: the destruction - now largely complete - of Syria's declared chemical weapons programme in less than 12 months. This has reduced the risks that these weapons will be used again to cause large-scale casualties in the region, and has further strengthened the international ban on chemical weapons.

In addition to the receipt and disposal of Syrian chemicals, the UK has also deployed experts to support OPCW planning, to assess Syria's CWC declarations for accuracy, and to assess the options for destroying both the declared chemical weapon agent and precursor chemicals. The UK also provided armoured 4x4 vehicles to enable the OPCW to carry out its missions in Syria, and contributed financially to the international Syria Trust Fund.

Despite this success, there are challenges that remain. Work is ongoing to complete the destruction of chemical weapons production facilities in Syria. An OPCW Fact Finding Mission is investigating compelling evidence that the Syrian regime is continuing to use chlorine as a chemical weapon and there are concerns about discrepancies in the information that Syria has provided about its chemical weapons programme. A core interdepartmental team is therefore continuing to work closely together, and with international partners, to ensure that Syria provides full transparency of its chemical weapons programme, and that this programme is completely destroyed, in accordance with the requirements of the OPCW and UN Security Council.

CWC Declarations

The CWC has three Schedules, each with different levels of control. Schedule 1 includes nerve and blister agents and, as such, is the most controlled, particularly as these chemicals have very few peaceful uses. The chemicals listed in Schedules 2 and 3 are subject to differing verification requirements and, especially in the case of Schedule 3, are often produced in large quantities for legitimate industrial purposes.

The CWC requires States Parties to submit to the OPCW a range of annual declarations covering activities involving chemicals specified in these three Schedules as follows:

- Schedule 1 chemicals - production, acquisition, consumption, storage, import and export
- Schedule 2 chemicals - production, processing, consumption, import and export
- Schedule 3 chemicals - production, import and export

The declarations are broken down by Schedule and they report activities for the past calendar year (known as the Annual Past Declaration (APD)) and anticipated activities for the next calendar year (known as the Annual Anticipated Declaration (AAD)). Since 2004, additional information is provided in an aggregated form known as the Aggregate National Data declaration (AND) for Schedule 2 and Schedule 3 chemicals that are below the declaration threshold. The UK does not have a de-minimis declaration threshold for these chemicals. Information is also provided on the large-scale production of a separate category of chemicals referred to in the Convention as Discrete Organic Chemicals (DOCs).

Declarations draw on information submitted by UK industry, academic and government organisations, and are provided to the OPCW according to the following timetable:

| Declaration | Timing |
|---|--|
| Annual Past Declaration covering Schedule 1, 2 and 3 chemicals, including Aggregate National Data and Discrete Organic Chemicals | No more than 90 days after the end of the calendar year |
| Annual Anticipated Declaration for Schedule 1 chemicals | No less than 90 days before the beginning of the calendar year |
| Annual Anticipated Declaration for Schedule 2 and 3 chemicals | No less than 60 days before the beginning of the calendar year |

The CWC also requires States Parties to provide information on any old chemical weapons (OCWs) found or destroyed on their territories (including a plan for future destruction) according to the following timetable:

| Declaration | Timing |
|---|--|
| Annual Plan for destruction | No less than 60 days before the end of the calendar year |
| Annual Report on destruction | No more than 60 days after the end of the calendar year |
| Ad Hoc Declarations of new finds | Within 180 days of discovery |

Two further reports are also required annually: on activities at former chemical weapons production facilities (CWPFs) approved by the OPCW for conversion for purposes not prohibited under the CWC; and on defence programmes for protection against chemical weapons.

The UKNA collects the information required for the above declarations from relevant UK organisations, which is submitted to the UKNA via an internet database. Guidance and registration information for the declaration database is available from the UKNA.

The UK's APD for 2013 was submitted to the OPCW on 4 March 2014. In addition to activities involving scheduled chemicals and DOCs, the declaration reported on activities at the three converted former CWPFs at Nancekuke (Cornwall), Randle (Cheshire) and Rhydymwyn (North Wales), all of which ceased the production and storage of chemical weapons in the late 1940s or early 1950s. Information on the UK's chemical defence programme in 2013 was also provided.

As noted in last year's report, the OPCW passed a decision in 2012 on the nature of continued verification measures at converted CWPFs ten years after their conversion. This decision stipulates that each facility will receive at least one further inspection and be subject to monitoring by the OPCW for an additional period of five years. The former CWPF at Rhydymwyn received an inspection by the OPCW in 2014 and will subsequently cease to submit annual reports on its activities in 2019. The two other former CWPFs at Nancekuke and Randle both received inspections in 2012 and will cease to submit annual reports on their activities in 2018.

The UK's AAD for 2015 for Schedule 1 facilities was submitted to the OPCW on 9 September 2014, and the AAD for Schedule 2 and Schedule 3 sites was submitted on 15 October 2014.

For OCWs, the UK submitted a report on the annual inventory and completed destruction during 2013 on 13 February 2014. Three declarations of new finds of OCWs in 2014 were also reported to the OPCW in accordance with agreed procedures. Destruction of OCWs was suspended in 2014 due to ongoing work to upgrade the UK's OCW storage and destruction facility at the Defence Science & Technology Laboratory at Porton Down. Destruction will recommence in 2015 once the upgrade is complete and operations have been tested.

The numbers of UK organisations making declarations in each category in each year since the CWC entered into force is:

| | Schedule 1 | Schedule 2 | Schedule 3 | DOCs | AND |
|------|------------|------------|------------|------|-----|
| 1997 | 2 | 9 | 11 | 132 | n/a |
| 1998 | 2 | 9 | 14 | 153 | n/a |
| 1999 | 2 | 8 | 12 | 151 | n/a |
| 2000 | 2 | 7 | 12 | 142 | n/a |
| 2001 | 2 | 10 | 11 | 140 | n/a |
| 2002 | 2 | 10 | 11 | 141 | n/a |
| 2003 | 2 | 10 | 12 | 131 | n/a |
| 2004 | 2 | 11 | 12 | 142 | 281 |
| 2005 | 2 | 14 | 10 | 134 | 279 |
| 2006 | 2 | 14 | 10 | 134 | 285 |
| 2007 | 2 | 12 | 7 | 125 | 256 |
| 2008 | 2 | 12 | 7 | 111 | 200 |
| 2009 | 2 | 12 | 7 | 111 | 199 |
| 2010 | 1 | 14 | 5 | 106 | 193 |
| 2011 | 1 | 17 | 5 | 98 | 253 |
| 2012 | 1 | 18 | 5 | 100 | 289 |
| 2013 | 1 | 19 | 5 | 93 | 291 |
| 2014 | 1 | 19 | 6 | 91 | 290 |

Since 2010, the UKNA has operated a CWC Declarations Database: a secure system which allows organisations making CWC declarations to prepare and submit them to the UKNA online. The entire end-to-end declaration process is fully electronic, so that as soon as a declaration is submitted by an organisation, it is immediately received by the UKNA. The UKNA then submits all the UK's CWC declarations securely to the OPCW.

As well as being a much quicker and secure process than the paper-based system that it replaced, the online system has a number of other advantages:

- a simple self-registration process is used to set up an online account
- site and plant information is pre-filled on subsequent declarations so that organisations only need to enter details of their chemical activities and sources
- declarations are electronically validated so that missing data or input errors need to be corrected before they can be submitted
- organisations are able to view their previous declarations online
- declarations are checked by the UKNA on their receipt and any changes or modifications can be quickly made online in cooperation between the UKNA and the declarer

Since its launch, the CWC Declarations Database has continued to significantly improve the efficiency of the UK's CWC declaration process and the timely submission of declarations.

In 2012, the OPCW initiated a Secure Information Exchange (SIX) project, with the aim of establishing an end-to-end solution for the secure online exchange of information between States Parties and the OPCW - particularly the submission of annual CWC declarations.

The OPCW developed the SIX project throughout 2013 in cooperation with interested States Parties. The UKNA was fully engaged in the development and testing of the system during the trial period, including establishing software components, exchanging security keys used for encryption and decryption of information and the actual transmission of test documents.

The SIX system was officially launched by the OPCW in July 2014, and is now available to all States Parties. The UKNA has made the necessary changes to its IT systems in order to make use of the SIX system, which will further streamline the UK's declaration process in the future.

CWC Inspections

Each year the OPCW undertakes routine inspections of selected declared sites to verify the declarations submitted by States Parties. The UK received a total of eight routine inspections in 2014: two at Schedule 2 industrial sites, four at DOC industrial sites, one at a former CWPF and one at the OCW storage and destruction facility at the Defence Science & Technology Laboratory at Porton Down. The UK received six additional inspections to verify the destruction of Syrian chemicals, bringing the total number of inspections received in 2014 to fourteen.

All the sites were acknowledged by the OPCW to have provided first-class co-operation and the inspections were completed without incident or unresolved issues. The number of OPCW inspections undertaken in the UK, by category, since the CWC entered into force is:

| Year | Schedule 1 | Schedule 2 | Schedule 3 | DOCs | CWPF | OCW |
|------|------------|------------|------------|------|------|-----|
| 1997 | 2 | 0 | 0 | 0 | 8 | 2 |
| 1998 | 1 | 4 | 1 | 0 | 5 | 1 |
| 1999 | 1 | 4 | 0 | 0 | 3 | 1 |
| 2000 | 2 | 0 | 1 | 0 | 3 | 1 |
| 2001 | 2 | 2 | 1 | 0 | 0 | 0 |
| 2002 | 1 | 2 | 2 | 0 | 1 | 1 |
| 2003 | 1 | 2 | 0 | 1 | 1 | 1 |
| 2004 | 0 | 2 | 0 | 4 | 0 | 1 |
| 2005 | 2 | 1 | 1 | 1 | 2 | 1 |
| 2006 | 1 | 5 | 0 | 3 | 1 | 1 |
| 2007 | 2 | 1 | 0 | 6 | 0 | 1 |
| 2008 | 0 | 1 | 0 | 5 | 0 | 1 |
| 2009 | 0 | 1 | 0 | 4 | 1 | 1 |
| 2010 | 1 | 2 | 0 | 5 | 1 | 1 |
| 2011 | 0 | 3 | 1 | 4 | 0 | 1 |
| 2012 | 0 | 3 | 1 | 6 | 1 | 1 |
| 2013 | 1 | 2 | 0 | 3 | 2 | 1 |
| 2014 | 0 | 2 | 0 | 4 | 1 | 1 |

Licensing and Trade Controls

The Chemical Weapons Act 1996 contains provisions to control Schedule 1 chemical production, possession and use through the issue of licences. These controls, together with separate import and export licensing requirements implemented under the Import of Goods (Control) Order 1954 and the Export Control Act 2002 respectively, aim to ensure that quantities of Schedule 1 chemicals acquired or possessed by the UK do not exceed the one tonne ceiling specified in the CWC; that the chemicals are used only for purposes not prohibited by the CWC; and that the CWC's conditions on transfers are met. Licence holders are required to report annual production and usage and any changes of circumstance to the UKNA.

An Open General Licence permits those registered under it to produce, possess or use an aggregate total of five grammes or less of any Schedule 1 chemical for pharmaceutical, medical or research purposes in any calendar year. Fourteen organisations operated under the Open General Licence during 2014.

An Individual Production - or Possession and Use - Licence is required to produce - or possess or use - more than five grammes of a Schedule 1 chemical. Two Individual Production Licences and ten Individual Possession and Use Licences were issued for 2014.

Contacts

For further information on the CWC, and associated import licensing regulations, contact:

The Chemical Weapons Convention UK National Authority
Department of Energy and Climate Change
Area E, 6th Floor
3 Whitehall Place
London
SW1A 2AW

Tel: +44 (0)300 068 5939 / 5925

E-mail: cwcna@decc.gsi.gov.uk

Website: <https://www.gov.uk/government/policies/countering-weapons-proliferation/supporting-pages/the-chemical-weapons-convention>

A list of scheduled chemicals can be found on the OPCW website:

www.opcw.org/chemical-weapons-convention/annex-on-chemicals/b-schedules-of-chemicals/

The OPCW's homepage can be found at: www.opcw.org

For information on export licensing regulations, contact:

ECO
Department for Business, Innovation and Skills
3rd Floor
1 Victoria Street
London
SW1H 0ET

E-mail: eco.help@bis.gsi.gov.uk

Website: www.gov.uk/about-the-export-control-organisation

Glossary of Terms

- AAD** Annual Anticipated Declaration. Required to be submitted by anyone who anticipates, in the next calendar year, producing any Schedule 1 and/or 3 chemicals, and/or producing, processing and/or consuming any Schedule 2 chemicals, above certain quantities.
- AND** Aggregate National Data. Required to be submitted by anyone who, in the previous calendar year, produced, processed, consumed, imported and/or exported any Schedule 2 chemicals and anyone who produced, imported and/or exported any Schedule 3 chemicals, and whose activities fall below those quantities requiring APDs and AADs to be submitted.
- APD** Annual Past Declaration. Required to be submitted by anyone who, in the previous calendar year, produced any Schedule 1 and/or 3 chemicals and/or unscheduled Discrete Organic Chemicals (DOCs), and/or produced, processed and/or consumed any Schedule 2 chemicals, above certain quantities.
- CWC** Chemical Weapons Convention. An international treaty which aims to eliminate an entire category of weapons of mass destruction by prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by States Parties.
- CWPF** Chemical Weapon Production Facility. Any equipment, including any building housing such equipment that was designed, constructed or used at any time since 1 January 1946 for the production of a chemical weapon as defined by the Convention.
- DOC** Discrete Organic Chemical. Any chemical belonging to the classification of chemical compounds consisting of all compounds of carbons except for its oxides, sulphides and metal carbonates. Although DOCs are not included in the schedules, plant sites producing DOCs are subject to verification if they produce more than 200 tonnes annually (or 30 tonnes if they contain the elements phosphorus, sulphur or fluorine).
- OCW** Old Chemical Weapons. Chemical weapons produced before 1925 or, in the period between 1925 and 1946 that have deteriorated to such an extent that they can no longer be used as chemical weapons.
- OPCW** Organisation for the Prohibition of Chemical Weapons. The implementing body of the Chemical Weapons Convention with the mandate to achieve the object and purpose of the Convention.

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