







OVERVIEW OF BIOLOGICAL CONTROLS

1. BACKGROUND

There is a widespread need to prevent the proliferation of nuclear, biological and chemical weapons, also referred to as Weapons of Mass Destruction (WMD). Control over WMD, their specific means of delivery and the associated dual-use ramifications is globally pursued through various treaties, conventions and regimes. South Africa subscribes to, supports and participates in most of these agreements and arrangements.

2. SOUTH AFRICAN POLICY ON NON-PROLIFERATION, ARMS CONTROL AND DISARMAMENT

In 1994, the South African Government adopted a policy on non-proliferation, disarmament and arms control. The primary goal was to reinforce and promote the country as a responsible producer, possessor, trader and end-user of dual-use-controlled goods and advanced technologies in the nuclear, biological, chemical and missile delivery system fields. The country therefore promotes the benefits that non-proliferation, disarmament and arms control hold for international peace and security, particularly to other countries in Africa and the Non-Aligned Movement (NAM).

3. MANDATE OF THE NON-PROLIFERATION COUNCIL

3.1. Non-Proliferation Act

In South Africa, due regard has been taken to ensure the non-proliferation of WMD through the enactment of the Non-Proliferation of Weapons of Mass Destruction Act, 1993 (Act No. 87 of 1993). The Act, as amended, was promulgated "to provide for control over weapons of mass destruction; and the establishment of a Council to control and manage matters relating to the proliferation of such weapons in the Republic; to determine its objectives and functions; to prescribe the manner in which it is to be managed and controlled; as well as to provide for matters connected therewith."

3.1.1. Related Regulations

As contemplated in the Act, the Minister of Trade and Industry publishes by notices in the *Government Gazette* lists of dual-use goods that are controlled. The Minister may on the recommendation of the Council, whenever he deems it necessary or beneficial to the public interest, by notice in the *Government Gazette* declare goods that may contribute to the design, development, production, deployment, maintenance or use of WMD to be controlled goods.

The Act is supported by the following regulations and notices published on 3 February 2010, and updated notices published 29 March 2019.

- a. Registration: Any person who is in control of any activity with regard to controlled goods or who has in his possession controlled goods must register with the Council in accordance with Government Notice No. R16 of 3 February 2010.
- b. Biological: Dual-use microbial or other biological agents, toxins and related equipment and technology that may be used in the manufacture of biological and toxin weapons are declared as controlled goods under the Government Notice No. 494 of 29 March 2019.
- c. Chemicals: Chemical Weapons Convention (CWC) list of chemicals are declared as controlled goods under Government Notice No. 495 of 29 March 2019. The Chemical Weapons Regulations regarding the application of provisions of the CWC was promulgated on 3 February 2010, under Government Notice No. R.17.
- d. Missiles: The Missile Technology Control Regime (MTCR) equipment, technology and related items are declared as controlled goods under Government Notice No. 491 of 29 March 2019.
- e. Nuclear: The nuclear-related dual-use equipment, materials, software and related technology of the Nuclear Suppliers Group (NSG) are declared as

controlled goods under Government Notice No. 492 of 29 March 2019. Futhermore, certain nuclear-related dual-use equipment, materials and software and related technology are declared as controlled goods under Government Notice No. 493 of 29 March 2019.

3.1.2. Permit administration

The import, export, re-export, transit and transhipment of these listed goods require a permit issued by the Council. Registered persons who intend to trade in controlled goods need to apply for the relevant type of permits.

3.2. Non-Proliferation Council

The South African Council for the Non-Proliferation of Weapons of Mass Destruction was established in terms of the Non-Proliferation Act. According to the Act, the Council shall, on behalf of the state, protect the interests, carry out the responsibilities and fulfil the obligations of the Republic with regard to non-proliferation, and advise the Minister with regard to any matter that it deems necessary and that falls within the purview of this Act.

3.2.1. Functions of the Council

- To control and manage all activities relating to non-proliferation, and provide guidance, instructions and information in connection therewith.
- To implement matters arising from international conventions, treaties and agreements related to proliferation affairs entered into or ratified by the Government of the Republic.
- To obtain or promote cooperation between government departments and other government institutions; as well as industry.
- d. To identify and indicate to the Minister goods to be declared controlled goods and activities.
- e. To determine which activities must take place under a permit issued by the Council.
- f. To administer the registration of persons involved in controlled activities or who are in possession of controlled goods.

- g. To issue and administer permits.
- h. To take the necessary steps to prevent the contravention of the provisions of the Act.

3.2.2. Membership of the Council

The members of the council are appointed by the Minister of Trade and Industry and comprises representatives from various government departments directly involved in issues of non-proliferation as well as industry representatives. The NPC meets at least every six to eight weeks to deliberate on non-proliferation-related issues, assess the activities of its committees and consider permit applications received from industry.

3.2.3. The Non-Proliferation Secretariat

The Non-Proliferation Secretariat to the council are officials of the Department of Trade and Industry (**the dti**). The Secretariat provides the administrative and secretarial services to the council and its committees.

3.2.4. The Committees of the Non-Proliferation Council

The process of control must be integrated, coordinated and administered among the various stakeholders that are involved in the implementation and enforcement of South Africa's legislation on non-proliferation. In this vein, the council has established a number of working committees that are constituted by representatives from different government departments including, in some instances, industry representatives and experts in specific fields related to non-proliferation.

The committees include:

- a. Non-Proliferation Control Committee (CC)
 The CC advises the council on non-proliferation issues, permit applications and special investigations.
- b. Biological Weapons Working Committee (BWWC)
 The BWWC advises the council on issues related to
 the Biological and Toxin Weapons Convention (BTWC)
 and the implementation of biological controls.

- c. Chemical Weapons Working Committee (CWWC)
 The CWWC advises the council on issues related to
 CWC and the implementation of chemical controls.
- d. Nuclear and Missile Dual-Use Committee (NMDUC)
 The NMDUC advises the council on nuclear-related dual-use and missile-related technical issues.
- e. Non-Proliferation Review Committee (NPRC)
 The NPRC advises the NPC on legislative issues such as the amendment of the Non-Proliferation Act.
- f. Project Management Committees (PMCs)

The council has signed Service Level Agreements (SLAs) with various institutions to further enhance South Africa's commitment to non-proliferation obligations. Meetings are held regularly between the Secretariat and these institutions to monitor the implementation of the SLAs:

- the dti, on behalf of the council, has signed the Memorandum of Understanding (MOU) on the enforcement of the Non-Proliferation Act at national ports of entry with SARS Customs.
- the dti, on behalf of the council, signed a SLA with Protechnik Laboratories, a division of Armscor for the institution to assist in the implementation of the CWC.
- the dti, on behalf of the council, signed a SLA with the Council for Geosciences (CGS) for the institution to assist in the implementation of the Comprehensive Nuclear Test-Ban Treaty (CTBT).

4. INTERNATIONAL OBLIGATIONS (TREATIES, CONVENTIONS & CONTROL REGIMES)

South Africa adheres to a number of international treaties, agreements and control regimes that has an impact on its policy on non-proliferation, disarmament and arms control. It is to be noted, however, that although South Africa is not a member of the Australia Group (AG), it has incorporated some of the AG biological and chemical control list into its national regulations.

South Africa is a member of the following legally binding treaties conventions and other informal groups that work together against the threat of the proliferation of weapons of mass destruction:

Treaty/Convention	Year ratified/ acceded
Treaty on the Non-Proliferation of	1991
Nuclear Weapons (NPT)	
Biological and Toxins Weapons	Ratified 1975
Convention (BTWC)	
Chemical Weapons Convention (CWC)	Ratified 1995
Comprehensive Nuclear-Test-Ban Treaty	Ratified 1999
(CTBT)	
Treaty on the Prohibition of Nuclear	
Weapons (TPNW)	
Other	Year Joined
Zangger Committee	1995
Nuclear Suppliers Group (NSG)	1995
Missile Technology Control Regime	1995
(MTCR)	
Wassenaar Arrangement (WA)	2006

5. OBLIGATIONS IN TERMS OF CHEMICAL CONTROLS

5.1. Chemical Weapons Convention

The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction (the Chemical Weapons Convention or CWC) opened for signature in 1993 and entered into force in 1997. The CWC established the Organisation for the Prohibition of Chemical Weapons (OPCW), which is based at The Hague in the Netherlands. The OPCW is the implementing body of the CWC and is supported by the technical secretariat. All state parties that are members of the CWC have equal rights and obligations. The OPCW oversees treaty implementation, organises verification visits and assists state parties in complying with the provisions of the convention.

South Africa ratified the CWC in 1995. The convention is legally enforced in South Africa through the Non-Proliferation Council, which acts as the national authority in terms of the Non-Proliferation Act and its supporting Government Notices.

The CWC prohibits and intends to eliminate all types of chemical weapons. It consists of a preamble, 24 articles and three annexes. As of November 2017, 192 state parties had signed the convention, with only Israel as the state that has signed but not ratified. Egypt, North Korea and South Sudan are the only states that have neither signed nor ratified the CWC.

The convention is the first multilateral arms control treaty to include a timeframe for the elimination of all chemical weapons and has an extensive verification regime. Due to the possible commercial applications, the CWC has categorised toxic chemicals and precursors into three schedules, listed in the first Annex on Chemicals. Manufacturers of the scheduled chemicals and discrete organic chemicals are subject to verification by the OPCW. The declaration and inspection requirements for each schedule vary, depending in part on the risk its chemicals pose to the object and purpose of the CWC.

5.1.1. Government Notice No. R.17 of 03 February 2010

Government Notice No. R.17 (the Notice), also known as Chemical Weapons Regulations, declares that:

- the Council is the designated national authority, as prescribed by Article VII of the CWC;
- persons in control of controlled chemicals listed in Annexure A to E, as explained in the Notice, are required to make annual declarations to the Council;
- the Council will conclude a facility agreement with the OPCW for certain production facilities; and
- inspections by the OPCW are managed through this Notice.

5.1.2. Government Notice No. 495 of 29 March 2019.

Government Notice No. 495 (the Notice) prohibits:

- the development, production, acquisition, stockpiling or retention of chemical weapons or the transfer, whether direct or indirect, of chemical weapons to any person;
- · the use of chemical weapons;
- engagement in any military preparations to use chemical weapons;
- the assistance, encouragement or induction, in any way, of any person to engage in any activity prohibited under the CWC;
- the use of riot control agents as a method of warfare;
- the export or re-export of toxic chemicals or precursors listed in Annexures A and B to countries that are not state parties to the CWC.

In addition to the prohibitions, the Notice prescribes that permits are required for all imports and exports of controlled chemicals listed. The Notice also indicates the control thresholds of controlled goods for the purposes of declarations and transfers.

Annexures

The Notice is divided into six Annexures:

- a. Annexure A lists various chemicals as in Schedule 1 of the CWC. These are the toxic chemicals and their precursors that are considered as chemical weapons and therefore have little to no use for commercial applications. However, state parties are allowed to possess significantly small quantities of these chemicals for research, medical, pharmaceutical or protective purposes only and these state parties are subjected to mandatory inspections by the OPCW.
- b. Annexure B lists various chemicals as in Schedule2 of the CWC. These chemicals are not produced in

- large quantities for commercial purposes.
- **c. Annexure C** lists various chemicals as in the CWC Schedule 3. These chemicals are produced in large quantities for commercial purposes.
- d. Annexure D lists additional toxic chemicals that could be used as precursors for the manufacturing of chemical weapons.
- e. Annexure E lists the riot control agents.
- f. Annexure F lists the antiplant agents.

Article VI Declarations

Article VI of the CWC, entitled "Activities not Prohibited under the Convention", describes the comprehensive regime for routine monitoring of the chemical industry through declarations and on-site inspections by OPCW inspectors.

According to Article VI, each state party should, in accordance with the Verification Annex, submit annual declarations on activities such as:

- the production of any discrete organic chemicals;
- import, export, local sale, local purchase, production or use of any of the scheduled chemicals; and
- export of any of the Annexure D chemicals as listed in the Notice.

Inspections by the OPCW are based on the Annual Declarations of Past Activities (ADPA) to confirm that South Africa is complying with the objectives of the CWC, and that the declarations submitted are correct and a true reflection of the activities of the declared facility in terms of levels of production, processing or consumption.

Declarable facilities (which include producers, processors, consumers, importers and exporters of schedule chemicals as well as producers of discrete organic chemicals) are

legally obliged to submit information on their past activities to the council on an annual basis. Past activities are all those described in Government Notice No. R.17 that the declarable facilities have undertaken for the previous calendar year, from 1 January to 31 December.

The completed ADPA documentation must be submitted to the Secretariat by the end of February.

OPCW Inspections

Article VI of the CWC states that state parties shall adopt necessary measures to ensure that all the controlled chemicals are used solely for peaceful purposes within their territories. Manufacturers of the scheduled chemicals and discrete organic chemicals are obligated to submit annual declarations and are subject to verification by the OPCW. The national authority always accompanies the OPCW inspection team during routine inspections.

5.1.3. EUC requirement for CS-containing riot control agents

End-use certificates are required for all exports of riot control agents, without exception. The applicant is required to supply a signed and authenticated original certificate to the Secretariat. It is important to note that an export permit will only be issued once an acceptable end-use certificate has been received by the Secretariat.

5.1.4. Other Domestic Chemical Control Structures

The Departments of Labour and Environmental Affairs are mandated with the control of other chemicals goods that are not listed in Government Notice No. 495 and should be consulted to ascertain the control and permit requirements related to such chemicals. The National Conventional Arms Control Committee (NCACC) controls some riot control agents and should also be consulted.









