

## **Strengthening the CWC Regime for Transfers of Dual-Use Chemicals**

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### **Summary**

The import-export provisions of the Chemical Weapons Convention (CWC) consist of two basic elements: (1) restrictions on trade in scheduled chemicals with non-states parties, and (2) monitoring transfers of scheduled chemicals among states parties. To implement these provisions, CWC member states must adopt national export-control legislation and provide data declarations to the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons (OPCW) in The Hague. At present, many states parties are not implementing the trade provisions of the CWC adequately, undermining their effectiveness. This paper discusses the elements of the import-export regime and suggests ways in which it could be improved.

### **Restrictions on Trade in Scheduled Chemicals**

Article VI of the CWC specifies a number of restrictions on chemical trade, keyed to the treaty's three Schedules of Chemicals. With the entry into force of the Convention in April 1997, transfers to non-states parties of the toxic chemicals and precursors on Schedule 1 were banned immediately, and those listed on Schedule 2 were added in April 2000.<sup>1</sup> In addition, the OPCW Conference of the States Parties considered a ban on exports of Schedule 3 chemicals to non-parties in 2002 but postponed a decision indefinitely. At present, exports of Schedule 3 chemicals to non-parties are permitted if the recipient provides a certificate specifying the intended end-use and pledging not to make any further transfers.<sup>2</sup>

The trade restrictions in the CWC were not intended primarily as a nonproliferation tool but rather as a means to penalize countries that refuse to sign and ratify the treaty, thereby creating an economic incentive to join. A secondary aim of the trade controls is to reduce the ability of hold-out states to obtain the precursor chemicals needed to produce chemical warfare agents in militarily significant quantities. To date, the restrictions on trade in Schedule 2 chemicals, many of which have legitimate industrial uses, have helped to increase the number of states parties. Nevertheless, such controls have not been decisive with respect to key hold-outs such as Egypt and Israel. Although both countries have large chemical industries, neither is dependent on imports or exports of Schedule 2 chemicals. As a result, Egyptian and Israeli policymakers have so far concluded that the security or political arguments against joining the CWC outweigh the economic incentives to do so. If, however, the restrictions on trade with non-states parties were expanded to include Schedule 3 chemicals, which are traded in much larger volumes, the economic pressures to join the CWC would become far greater.<sup>3</sup> The Israeli Ministry of Industry and Trade has estimated that a ban on trade in Schedule 3 chemicals would cost the country's pharmaceutical and electronic

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<sup>1</sup> According to a decision by the OPCW Conference of the States Parties, mixtures containing Schedule 2 chemicals may be transferred to non-states parties if the concentration is 1 percent or below for Schedule 2A chemicals and 10 percent or below for Schedule 2B chemicals.

<sup>2</sup> Products that contain 30 percent or less of a Schedule 3 chemical, or that are identified as consumer goods, do not require an end-use certificate.

<sup>3</sup> Pamela Mills, "Preventing Chemical Warfare and Terrorism: The CWC and the Middle East," *Disarmament Diplomacy*, No. 65 (July-August 2002).

industries about \$700 million per year.<sup>4</sup> Accordingly, expanded trade restrictions could tip the Israeli policy debate in favor of CWC ratification.

In order to comply with the trade-related obligations of the CWC, member states must adopt an effective system of national export controls. Such a system can be put in place either by incorporating the relevant provisions into existing laws or by passing a special package of CWC-related legislation. Most countries already impose some degree of control over imports and exports, usually by requiring a permit or license for trans-national transfers of goods. Specific steps for implementing CWC trade controls include: (1) the development of end-user and re-export certificates and procedures for processing them efficiently before authorizing exports; (2) national measures to verify that chemical imports and exports comply with the trade restrictions in the Convention, such as in-transit shipment controls and post-shipment checks; and (3) the promulgation of penalties for violations of the import-export regulations.<sup>5</sup>

Although the CWC trade restrictions require each member state to establish a system of export controls, the OPCW Technical Secretariat (TS) has no means of verifying CWC trade restrictions at the international level. Instead, effective implementation is the responsibility of each National Authority. Although little information is available on how well the member states are implementing the CWC trade restrictions, the existing evidence is not encouraging. Of the 181 states parties, less than half have the necessary export-control laws and regulations in place. Even with the appropriate implementing legislation, individual member states may not have the capacity to monitor chemical imports and exports effectively.

The lack of verification and enforcement at the national level has allowed some illicit transfers to take place. According to the *OPCW Annual Report*, although the ban on exports of Schedule 2 chemicals to non-states parties went into effect in April 2000, 184 metric tons of Schedule 2 chemicals were transferred to a non-state party in 2004.<sup>6</sup> Moreover, it may not be possible for a National Authority to verify that a Schedule 2 chemical transferred to a state party is not subsequently reexported to a state not party for weapons purposes. Equally difficult to implement is the obligation to monitor and enforce controls on transfers of “intangible” technology, such as production know-how.<sup>7</sup>

Another problem is that only some CWC states parties apply the General Purpose Criterion, which underlies the basic prohibitions in Article I, to the export control area. According to Article VI, paragraph 2, “each State Party shall adopt the necessary measures to ensure that toxic chemicals and their precursors are only . . . transferred . . . for purposes not prohibited under this Convention.” Since many unscheduled chemicals are capable of being used as chemical warfare agents or precursors, an export-control system fully consistent with the CWC should extend beyond scheduled chemicals to prevent the transfer of *any* chemical for which there is evidence of development, production, or use for prohibited purposes.

Although the European Union (EU) regulation on exports of dual-use items covers a broader range of precursors than those listed on the CWC schedules, it represents only a fraction of the universe of chemicals potentially susceptible to misuse.<sup>8</sup> Thus, as a further precaution, the EU regulation includes a “catch-all” provision that requires companies to obtain a license to export unscheduled chemicals for which evidence exists of diversion for

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<sup>4</sup> Eitan Barak, “Israel, the CWC and the Universality Objective: The View from Jerusalem,” *CBW Conventions Bulletin*, No. 68 (June 2005), p. 2.

<sup>5</sup> Barry Kellman and Edward A. Tanzman, *Manual for National Implementation of the Chemical Weapons Convention* (Web Edition), November 1999.

<sup>6</sup> OPCW, *Annual Report for 2005*, C-11/4, December 6, 2006, p. 5.

<sup>7</sup> Daniel Feakes, “Export Controls, Chemical Trade and the CWC,” in Jonathan B. Tucker, ed., *The Chemical Weapons Convention: Implementation Challenges and Solutions* (Monterey Institute, April 2001), p. 48.

<sup>8</sup> European Union, “Council Regulation (EC) No. 1334/2000 of 22 June 2000, setting up a Community regime for the control of exports of dual-use items and technology,” *Official Journal of the European Communities*, June 30, 2000, pp. L159/1-215.

chemical weapons purposes.<sup>9</sup> Nevertheless, most other CWC member states focus their export-control regulations exclusively on scheduled chemicals.

Given the weaknesses in national implementation of the CWC trade restrictions, it would be desirable for the TS to establish a mechanism for verifying imports and exports at the international level. Currently, the only way suspicions about illicit transfers can be investigated is for a state party to request a challenge inspection, but the political hurdles preventing the use of this mechanism remain high. It might be possible, however, for the OPCW Technical Secretariat to develop a separate set of measures for monitoring the trade restrictions in the CWC. For example, during routine on-site inspections of Schedule 2 and 3 facilities, OPCW inspectors could conduct random checks of export and import documents.<sup>10</sup> Although inspectors often perform a material balance by examining company records on inputs and outputs, they generally avoid requesting access to import/export data. Detailed information on foreign sales is considered proprietary because competitors could use it to offer the same products at lower prices and lure away customers. Nevertheless, the TS should be entrusted with company import/export data because it has a good record of safeguarding confidential information.

Another model for the international monitoring of CWC trade restrictions is the export/import mechanism established under UN Security Council Resolution 1051 (1996). This mechanism was designed to support the long-term verification of Iraq's commitment to eliminate its WMD stockpiles and not reconstitute them at a future date. UN member states trading with Iraq were required to submit lists of proposed exports for review by the UN Special Commission (UNSCOM) and the 661 Sanctions Committee. In addition, exporters had to report the time of entry and final destination of every approved shipment to Iraq. These procedures enabled inspectors from UNSCOM and the International Atomic Energy Agency (IAEA) to track dual-use imports and extract valuable proliferation-related information. For example, when UNSCOM inspectors compared the total quantity of bacterial culture media imported by Iraq during the 1980s with the amount of media known to have been consumed for legitimate purposes, they found a difference of 17 metric tons. Iraq's inability to account for this discrepancy ultimately forced the regime to admit to the large-scale production of biological weapons.<sup>11</sup>

### **Reporting of Data on Transfers of Scheduled Chemicals**

The second element of the CWC trade monitoring regime requires member states to submit to the TS annual data declarations on their aggregate imports and exports of scheduled chemicals. States parties may trade with one another in Schedule 1 chemicals only in small amounts for specified medical, pharmaceutical, or research purposes and may not re-export them. In 2004, twelve states parties were involved in 53 transfers of Schedule 1 chemicals.<sup>12</sup> The item transferred most often was saxitoxin, tiny amounts of which are used in medical kits for diagnosing paralytic shellfish poisoning. Article VI also requires states parties to submit to the TS aggregate national data on (1) the production, processing, consumption, import and export of Schedule 2 chemicals; and (2) the production, import and export of Schedule 3 chemicals.<sup>13</sup> The transfers are reported in aggregate form because they often include data from companies that export or import scheduled chemicals in quantities below the CWC

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<sup>9</sup> United Kingdom, "The Role of Export Controls in the Implementation of the Chemical Weapons Convention," National Paper for First Review Conference, RC-1/NAT.12, April 29, 2003, p. 2.

<sup>10</sup> Feakes, "Export Controls, Chemical Trade and the CWC," in Tucker, ed., *The Chemical Weapons Convention*, p. 49.

<sup>11</sup> Gunnar Jeremias, "A Global Trade Monitoring Regime for Bioweapons Related Items," Occasional Paper, Research Group for Biological Arms Control, University of Hamburg (December 2006), p. 1.

<sup>12</sup> OPCW, *Annual Report 2005*, p. 5.

<sup>13</sup> Declarations are not required for mixtures of chemicals containing 30 percent or less of a Schedule 2B chemical or a Schedule 3 chemical.

declaration threshold. Both the shipping and recipient states are supposed to declare each transfer, so that the two figures can be matched. In 2004, 47 states parties declared 518 annual aggregate transfers of Schedule 2 chemicals to or from other states parties. In addition, 111 states parties declared about 1,420 transfers of Schedule 3 chemicals to or from other states parties, and eight states parties declared transfers of five Schedule 3 chemicals to four non-states parties.<sup>14</sup>

Ideally, the national trade data submitted by states parties should help the TS to monitor the global flows of scheduled chemicals and identify suspicious transactions. In practice, however, the TS has no independent capacity to verify the accuracy of the declarations. To submit reliable trade data, the National Authorities must have a good understanding of their domestic chemical industry, including the names of major customers and suppliers and their levels of activity. This can be done by drawing on a variety of information sources, including industry surveys, chemical company directories, consultation with trade associations, and analysis of customs data. Unfortunately, some member states do not have the necessary regulations in place to collect detailed information from industry, so the national declarations vary widely in quality.

Efforts by the TS to match the declared import and export figures have also found many discrepancies, either because the transfer is reported by only one state party or because there is a large difference in the quantities declared by the shipper and the recipient. (A discrepancy is defined as a difference that exceeds the CWC declaration threshold.) In 2002, for example, approximately 78 percent of the exports of scheduled chemicals declared by states parties did not match the imports declared by the supposed recipients.<sup>15</sup> The problem of discrepancies has many causes, including the use by states parties of different methodologies to collect and report trade data, clerical errors, the loss in transit of chemical shipments, the fact that some shipments straddle the end of the calendar year, and the increasing use of free ports and free-trade zones, which are poorly monitored.<sup>16</sup> As a result, most aggregate national data declarations are not sufficiently accurate to be of much value as a nonproliferation tool.<sup>17</sup>

A few countries have taken concrete steps to improve the quality of the import-export data they submit to the TS. Australia, for example, has introduced a licensing and permit system for tracking trade in scheduled chemicals to ensure that Schedule 1 and 2 chemicals are not supplied to non-parties. Australian chemical companies must obtain a license or permit before exporting or importing scheduled chemicals and submit an annual activity report to the National Authority.<sup>18</sup> Australia has also adopted a customs classification system to support its CWC trade controls and facilitate the checking of industry declarations by the National Authority. This mechanism is based on the Globally Harmonized System (GHS), which uses six-digit classifications and was approved by the World Customs Organization in June 1999. The GHS codes are more precise than the Chemical Abstracts System (CAS) numbers included in the CWC schedules.

The OPCW *Handbook on Chemicals* now provides GHS classifications for a large number of scheduled chemicals. Mandatory use of these codes by CWC states parties would yield import and export figures that are more directly comparable, reducing the number of discrepancies and helping the TS to validate the aggregate national data submitted in initial

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<sup>14</sup> OPCW, *Annual Report 2005*, p. 5.

<sup>15</sup> OPCW, *Consolidated Unclassified Verification Implementation Report, April 1997-31 December 2002*, RC-1/S/6, April 25, 2003.

<sup>16</sup> Daniel Feakes, "Evaluating the CWC Verification System," *Disarmament Forum*, No. 4 (2002), p. 16.

<sup>17</sup> John Hart, "Economic and Technological Development under the Chemical Weapons Convention," Presentation at the Preparatory Workshop for the First Review Conference of the CWC, CBACI, Washington, March 19, 2003.

<sup>18</sup> Australia, "Australia's Experience in Tracking Systems for International Trade in Chemicals Listed in the Chemical Weapons Convention's Schedules of Chemicals," First Review Conference, RC-1/NAT.29, May 9, 2003, p. 2.

and annual declarations.<sup>19</sup> At present, many CWC states parties have yet to adopt the GHS, including the members of the European Union. According to the United Nations Economic Commission for Europe, however, “It is the intention of the European Commission to come forward with the necessary legislative proposals to implement the GHS into Community law and to achieve consistency between the transitional arrangements of REACH [the new EU regulatory framework for chemicals] and GHS implementation.”<sup>20</sup>

Australia and Canada have found that the standard six-digit GHS classifications are not specific enough to allow customs officials to extract the transactions of interest from the huge volume of chemical trade. At the six-digit level, for example, the seven chlorides listed in the CWC schedules, including phosgene, are all covered by the same code. To ensure greater specificity, Australia has developed unique eight- or ten-digit customs classifications for all scheduled chemicals and families of chemicals and their more common representatives, 106 in all. The Australian Customs Service also employs a computerized self-reporting system. For each shipment of scheduled chemicals, the registered owner and the licensed broker must enter a unique classification number into the system (the Australian Harmonised Export Commodity Classification Number for exports and the Tariff Classification Number for imports). Once these data have been entered, the Customs Service uses a combination of computerized and manual methods to check the transactions in real-time, making it possible to hold the chemicals, if necessary, pending approval.<sup>21</sup> Electronic “flags” associated with certain classification numbers ensure that shippers of regulated chemicals have a valid permit, and may help to identify previously unknown exporters or importers who should be subject to regulation. Nevertheless, effective implementation of the new customs classification system has required extensive industry outreach and education.<sup>22</sup>

Advanced technical means for monitoring cross-border transfers of scheduled chemicals may be adopted at some time in the future. Such approaches include marking shipments of scheduled chemicals with Global Positioning Satellite (GPS) transponders so that they can be tracked in real-time. In addition, individual containers of chemicals might be “tagged” with inexpensive Radio Frequency Identification (RFID) chips, which store data that can be retrieved remotely. Passive RFID tags have no internal power supply; the incoming radio-frequency signal induces a minute electrical current in the antenna, providing just enough power for the integrated circuit to transmit a response. Low-cost RFID tags are currently in use for inventory control at large retail stores such as Wal-Mart and Target in the United States, Tesco in the United Kingdom, and Metro in Germany.<sup>23</sup>

### **The CWC and the Australia Group**

Doubts about the effectiveness of the national trade controls implemented by CWC member states have caused the United States and other Western industrial countries to maintain export-control mechanisms outside the treaty framework. Thirty-nine states currently participate in an informal coordinating body known as the Australia Group (AG), which harmonizes national export controls on chemical precursors and production equipment. The AG was established in 1985 in response to the finding that both Iraq and Iraq had procured dual-use chemicals and equipment from companies in several Western countries.

The states participating in the AG have adopted common control lists for 54 dual-use precursor chemicals, 13 toxins, and several items of dual-use chemical manufacturing equipment, and they also share intelligence on suspect chemical weapons programs. Because

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<sup>19</sup> Feakes, “Evaluating the CWC Verification System,” p. 16.

<sup>20</sup> United Nations Economic Commission for Europe, “GHS: Status of Implementation,” updated February 12, 2007, available online at: [http://www.unece.org/trans/danger/publi/ghs/implementation\\_e.html](http://www.unece.org/trans/danger/publi/ghs/implementation_e.html)

<sup>21</sup> Australia, “Australia’s Experience in Tracking Systems for International Trade,” p. 3.

<sup>22</sup> *Ibid.*, pp. 3-4.

<sup>23</sup> Wikipedia, “Radio Frequency Identification,” available online at: <http://en.wikipedia.org/wiki/RFID>

the AG recognizes the sovereignty of its partners, each participating country is allowed to implement the export guidelines as it sees fit. The United States, for example, exempts other AG members from licensing requirements for controlled chemicals on the condition that the recipient agrees not to re-export the chemicals to a third destination that would require a license for direct export.<sup>24</sup> To protect proprietary client information, the AG countries report which export license requests they have denied but not those they have approved.

The AG Control List differs from the CWC Schedules of Chemicals in its purpose and the way it is structured and implemented. Whereas the objective of the AG list is to prevent the supply of precursors to a small number of countries seeking chemical weapons, the purpose of the CWC schedules is to provide a means of verifying that all states parties are complying with their treaty obligations not to develop, produce, or stockpile chemical weapons.<sup>25</sup> Toxic chemicals and their precursors are assigned to the three schedules based on the risk they pose to the object and purpose of the Convention, the extent of their legitimate industrial use, and the feasibility of monitoring.<sup>26</sup> In contrast, the AG list does not contain chemical warfare agents but only precursors, including 20 compounds that are not present in the CWC schedules because they are used early in the production process or have extensive peaceful applications, making them poorly suited for verification. The AG list also includes 13 toxins of biological origin, compared with only two on the CWC schedules, as well as dual-use production equipment and technology.

As a result of efforts by the AG, would-be proliferators have been forced to purchase precursor chemicals further back in the chemical weapons production process, increasing costs and technical hurdles. In recent years, the AG has tightened its export-control policies even further. These enhancements include a “catch-all” provision that requires the participating states to license exports of items that appear linked to a chemical weapons program even if they are not included in the control list; and a “no-undercut” rule that prevents one AG country from supplying a dual-use item to a suspected proliferator if another AG member has already denied an export license. Because alternative sources of precursors and production equipment exist, the AG is not a panacea for preventing chemical weapons proliferation. Nevertheless, coordinated export controls can slow efforts to acquire chemical weapons until other policy measures can be brought to bear.

The relationship between the AG and the CWC is controversial. Whereas the CWC trade restrictions on Schedule 2 and 3 chemicals apply only to non-states parties, the AG limits exports of dual-use precursors and production equipment both to non-states parties and to certain states parties for which national intelligence suggests the existence of a clandestine chemical weapons program. During the endgame of the CWC negotiations at the Conference on Disarmament in Geneva, the existence of the AG became a stumbling block to achieving consensus on the final treaty text. On August 6, 1992, Ambassador Paul O’Sullivan of Australia sought to address the concerns of developing countries by reading a statement on behalf of the group. He pledged that the members of the AG would “undertake to review, in the light of the implementation of the Convention, the measures that they take to prevent the spread of chemical substances and equipment for purposes contrary to the objectives of the Convention, with the aim of removing such measures for the benefit of States Parties to the Convention acting in full compliance with their obligations under the Convention.”<sup>27</sup>

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<sup>24</sup> James I. Seevaratnam, “The Australia Group: Origins, Accomplishments, and Challenges,” *Nonproliferation Review*, vol. 13, no. 2 (July 2006), p. 404.

<sup>25</sup> Robert J. Mathews, “A Comparison of the Australia Group List of Chemical Weapon Precursors and the CWC Schedules of Chemicals,” *Chemical Weapons Convention Bulletin*, No. 21 (September 1993), pp. 1-3.

<sup>26</sup> Chlorine, for example, is not included because it is used in such vast quantities for peaceful purposes, such as water purification.

<sup>27</sup> Statement made on behalf of the Australia Group by the Representative of Australia, Ambassador Paul O’Sullivan, at the 629<sup>th</sup> Plenary Meeting of the Conference on Disarmament, CD document CD/1164, August 7, 1992.

The O'Sullivan statement persuaded several developing countries to join consensus in endorsing the final text of the CWC, with the expectation that the AG commitment would soon be translated into action. During the ten years since entry into force of the Convention, however, no steps have been taken to dissolve the group. Indeed, a condition in the U.S. Senate's Executive Resolution of Ratification requires the President to report annually to Congress that the AG controls remain in effect.<sup>28</sup> Several CWC member states belonging to the Non-Aligned Movement (NAM), including India, Iran, Pakistan, China, and Cuba, assert that the AG is an unfair barrier to trade and therefore violates Article XI, which provides that states parties "shall not maintain among themselves any restrictions . . . incompatible with the obligations taken under this Convention, which would restrict or impede trade and the development or promotion of scientific and technological knowledge in the field of chemistry for industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes."

The critics argue that the AG impedes the economic development of targeted countries, is discriminatory because not all CWC states parties can join, and reduces the incentive for hold-out countries to join the Convention. As Ambassador Prakash Shah of India has argued, "Why would signatory states not threatened by chemical weapons adhere to the CWC . . . if the benefits of free international trade and cooperation, unhampered by the Australia Group or similar discriminatory arrangements, are not available to them?"<sup>29</sup> Other critics contend that the continued existence of the AG reflects a lack of confidence in the CWC that undermines its credibility<sup>30</sup> and that supplier cartels such as the AG run counter to the liberalization of international trade promoted by free-trade zones and the World Trade Organization.<sup>31</sup>

Participants in the AG respond that they retain the sovereign right not to export dual-use chemicals and equipment to states of proliferation concern, whether or not such countries are parties to the CWC. In response to the requirement in Article XI, paragraph 2(e) that all states parties review their existing national regulations in the field of chemical trade to ensure that they are compatible with the CWC, AG members argue that export licensing supports the obligation in Article I "never under any circumstances . . . to assist, encourage or induce, in any way, anyone to engage in any activity" prohibited by the CWC. In this view, the treaty obligation to prevent chemical proliferation trumps the demand by countries of concern for greater access to dual-use chemicals and technologies.

AG members also point out that the impact of export controls on the international trade in chemicals is extremely small. Of 2-3 million requests for exports per year, the AG countries typically deny less than one-half of 1 percent, and nearly all of the denied exports involve a high risk of diversion to a chemical weapons program.<sup>32</sup> This figure is a bit misleading, however, because companies generally avoid a formal denial by informally discussing proposed exports with the government authorities in advance.

To what extent can the export restrictions in the CWC eventually take the place of the AG? Daniel Feakes has argued that an expansive interpretation of the treaty's export-control provisions would go beyond scheduled chemicals to cover all toxic chemicals and precursors used for prohibited purposes, as well as specifically designed production equipment and specialized munitions and delivery systems.<sup>33</sup> Unfortunately, no consensus exists among states parties that the CWC import-export regime applies to unscheduled chemicals and dual-

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<sup>28</sup> U.S. Senate, Executive Resolution on Ratification of the CWC ( S. Exec. Res. 75 of April 24, 1997), available online at [http://www.fas.org/bwc/us\\_cwc\\_senate\\_resolution.htm](http://www.fas.org/bwc/us_cwc_senate_resolution.htm)

<sup>29</sup> Prakash Shah, "International Co-Operation in Chemical Trade: Has the Chemical Weapons Convention Helped?" *OPCW Synthesis*, April 2001.

<sup>30</sup> Ernst Wyszomirski, "The CWC and Barriers to Chemical Trade," *Chemical Weapons Convention Bulletin*, No. 28 (June 1995), pp. 1-3.

<sup>31</sup> Stanley Foundation, "Technology Access for the Developing World: Reconciling Global Regimes and National Security Mandates," online at <http://www.stanleyfoundation.org/programs/sns/issues02/index.html>

<sup>32</sup> Hart, "Economic and Technological Development Under the Chemical Weapons Convention."

<sup>33</sup> Daniel Feakes, "Export Controls, Chemical Trade and the CWC" [unpublished paper, December 2002], p. 21.

use production equipment. Instead, most member states have targeted their export controls exclusively on scheduled chemicals.

Feakes also contends that “the more confidence which states parties have in the effectiveness of CWC transfer controls, the less need there will be for parallel measures.” According to this logic, improved implementation of national export controls should eventually make it possible to eliminate the AG. For that to happen, however, national implementation of CWC trade controls would have to be far better than is currently the case, and all states parties would need to be confident that other member-states are complying fully with their treaty obligations. According to Martin Rudduck, the head of the British National Authority, “The problem is that the chain is only as strong as its weakest link. Maybe when all countries have robust export-control systems in place, the CWC trade restrictions will be effective, but that is unlikely to be the case for all 181 states parties.”<sup>34</sup>

A more fundamental problem is that the transfer-related provisions of the CWC do not constitute a true export-control regime. According to a paper prepared by the British government, the trade information submitted to the Technical Secretariat “is provided *after* the import or export has taken place. . . . [I]t does not of itself constitute a process of export control, which requires a decision to be made *in advance* as to whether a specific export should or should not be permitted. Such a decision must remain a responsibility of States Parties, and Article I of the Convention does not in any way limit the exercise of this responsibility to consideration of exports only to States not Parties.”<sup>35</sup>

A corollary argument is that exporters of scheduled chemicals cannot meet their nonproliferation obligations under Article I simply by noting that the receiving state is a party to the CWC. Even if a country appears to be a member in good standing, it may not be acting in good faith. In the words of the British paper, “Exporting states must continue to permit transfers *only* if they believe the items will *not* be misused. They cannot permit transfers simply on the grounds that they cannot *prove* publicly that they *will* be misused.”<sup>36</sup>

### **Trade Control Measures Outside the CWC**

In recent years, two additional measures outside the CWC for the monitoring and control of chemical trade have been introduced. These initiatives are not a substitute for CWC trade controls but are complementary to them. The Proliferation Security Initiative (PSI), which President George W. Bush launched in May 2003, is a cooperative effort by a coalition of like-minded states to interdict shipments of nuclear, biological, or chemical weapons, delivery systems, and related materials to hostile states and terrorist organizations. The Bush administration claims that more than 70 countries support the initiative, although it is unclear what such “support” consists of.<sup>37</sup> As an informal “coalition of the willing,” PSI has no international secretariat or established source of funding and does not make public its successes or failures, providing no yardstick by which to measure effectiveness. Until more formal implementation mechanisms and institutions are established, the sustainability of the initiative will remain uncertain. Implementation of PSI also faces significant legal challenges. Ships carrying illicit cargo can be inspected if they stop in the port of a cooperating country. Under the Law of the Sea Convention and customary international law, however, ships on the high seas have the right of freedom of the seas and innocent passage, making it difficult for

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<sup>34</sup> Author’s telephone interview with Martin Rudduck, February 23, 2007.

<sup>35</sup> United Kingdom, “The Role of Export Controls in the Implementation of the Chemical Weapons Convention,” pp. 3-4.

<sup>36</sup> *Ibid.*, p. 4.

<sup>37</sup> Sharon Squassoni, “Proliferation Security Initiative (PSI),” *CRS Report for Congress*, updated September 14, 2006, p. 3.

PSI members to legally seize illicit cargo. Moreover, interdiction is legal only with respect to commercial ships but not government-owned ones.<sup>38</sup>

A second development outside the CWC is Resolution 1540, which the UN Security Council adopted on April 28, 2004, under Chapter VII of the UN Charter (“Action with Respect to Threats to Peace, Breaches of the Peace and Acts of Aggression”). This resolution requires all UN member states to adopt laws preventing non-state actors from manufacturing, acquiring, or trafficking in nuclear, biological, or chemical weapons, materials, or delivery systems. To this end, all UN member states—whether or not they are parties to the CWC—must establish a national system of chemical export controls and other export-related restrictions on items of proliferation concern. A “1540 Committee” reporting to the Security Council monitors the implementation of the resolution. Despite some initial resistance, there is growing international acceptance of the need for national export controls to prevent the proliferation of weapons of mass, although some NAM countries still refuse to accept this precedent with respect to the AG.

### Policy Recommendations

Much more work is required to implement the transfer-control provisions of the CWC and monitor them effectively at both the national and international levels. Some policy options for strengthening these provisions include the following:

1. *Improve the accuracy of the aggregate data submitted by states parties by harmonizing the declaration criteria used by individual countries.* Although some progress on harmonization of aggregate national data declarations has been made (e.g., the introduction of standardized rules for declaring low concentrations of scheduled chemicals in mixtures), states parties should improve the quality and consistency of their national data by switching to the GHS classification system, adopting standard declaration formats, and developing a set of “best practices” for monitoring national trade in scheduled chemicals.
2. *Improve outreach to the chemical industry by informing exporters about the risk of misuse and the need to police themselves.* Individual exporters should be urged to know their customers and refuse to sell scheduled chemicals to unknown parties. A good set of guidelines to this effect is the “responsible care” program sponsored by the International Council of Chemical Associations.<sup>39</sup>
3. *Introduce formal international measures for verifying the trade restrictions in Article VI.* OPCW inspectors should be authorized to conduct random checks of export and import documents during routine on-site inspections at Schedule 2 and 3 facilities. The inspectors should also draw on lessons learned from the trade-monitoring system set up by UNSCOM and the IAEA during the 1990s to oversee imports of dual-use goods by Iraq.
4. *During the Second CWC Review Conference in 2008, renew and strengthen the provision in the Action Plan on National Implementation requiring states parties to adopt national export-control laws and regulations.* Member states should enact legislation that requires full industry compliance with the CWC trade restrictions and reporting requirements and imposes penal sanctions for shipping Schedule 1 or 2 chemicals to non-states parties and for submitting incomplete or inaccurate declarations.

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<sup>38</sup> Ibid., pp. 4-5.

<sup>39</sup> For more on the ICCA’s “responsible care” policies, see <http://www.icca-chem.org/news005.html>