INTERNATIONAL COUNCIL OF CHEMICAL ASSOCIATIONS

Paper for 2nd Review Conference on the Chemical Weapons Convention

The role of industry in the Chemical Weapons Convention

The Chemical Weapons Convention (CWC) is a multilateral disarmament treaty that primarily focuses on the destruction of chemical weapon stockpiles and preventing the production of new chemical weapons. The world's chemical industry manufactures the compounds we depend on in our daily lives. Some very common chemicals can, if misused, be employed directly, or through further synthesis with other substances, as chemical weapons. Therefore, the CWC requires private industry to monitor the production, consumption, processing, import and export of certain as well as discrete organic chemicals that have the potential to be converted to chemical weapons. The same provisions apply to governments and public bodies (such as universities) in order to prevent any production or proliferation of chemical weapons.

Under general purpose criteria, all chemicals that have no legitimate purpose are banned. The controls relate to chemicals listed in three schedules to the Convention:

Schedule 1 chemicals are those that have very few commercial applications but are governed by the most stringent authorisation requirements.

Schedule 2 chemicals are those that have some commercial uses. Most are precursor chemicals (those that can be most readily turned into chemical weapons or are vital in the production process) but three of the chemicals are classified by the Convention as toxic.

Schedule 3 chemicals are those that have wide legitimate commercial uses. Most are precursor chemicals but four of the chemicals are classified by the Convention as toxic.

Furthermore, there are Other Chemical Production Facilities producing discrete organic chemicals, which are subjected to verification.

So what does industry actually do to comply with the Convention? In countries that have ratified the Convention and have set up National Authorities, all production, trade and use of CWC scheduled chemicals has to be reported under the Convention.

The implementation of trade controls – as opposed to production controls - depends on both the precursor chemical and its destination. For Schedule 1 chemicals (active components of chemical weapons) international trade is banned, except for licensed small quantities to other state parties for legitimate peaceful use. Schedule 2 and 3 chemicals (primary precursor chemicals and large volume production chemicals) are subject to export control requirements including end use certificates. Trade in Schedule 2 precursors with states non-Party to the CWC is banned.

In practical terms this means chemical users and suppliers have to do a number of things to ensure smooth compliance with the CWC with minimum disruption to business. Equipment and processes that are capable of producing Scheduled chemicals or Discrete Organic Compounds must be registered with the national authority. Chemical suppliers should flag products that appear on the CWC Schedules so that laboratory-purchasing managers are forewarned. Companies should put in place

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policies so that all employees are quite clear what is expected. Ideally, a single company policy on record-keeping, declarations and export controls should cover CWC and all other restrictions to trade.

ICCA support for the CWC

Throughout the negotiation and subsequent entry-into-force of the CWC, the Convention received the full and unconditional support of the global chemical industry, represented by the International Council of Chemical Associations (ICCA).[1] ICCA continues its strong support for the CWC.

ICCA particularly endorses the logic of the CWC's verification system, which provides guidelines for eliminating the world's chemical weapons stocks and CW related activities, and identifying risks of CW production. The CWC's multiple schedules; varied inspection aims and degrees of intrusiveness, and different thresholds reflect a strategic approach to achieving these core objectives. Industry welcomes progress towards universality of membership in the CWC and the advancement of industry verification. Thus far, industry verification has been marked by practicality and flexibility. However, industry verification has been limited to activities involving Scheduled Chemicals that are concentrated in the world's largest chemical producing countries. By design, the Organisation for the Prohibition of Chemical Weapons (OPCW) has begun to inspect plant sites producing unscheduled discrete organic chemicals, the activity accounting for the majority of declarable and inspectable States Parties. As a result, these inspections will extend the geographic reach of industry verification and engage new States Parties. Industry encourages verification consistent with the specific treaty mandate and measures on these plant sites. We also anticipate continued practicality and flexibility during these inspections but wish to underscore the particular significance of an informed inspectorate and risk-based plant site selection criteria to effect verification that addresses the genuine and greatest risks to the convention's non-proliferation objectives.

On the occasion of the Review Conference, the ICCA wishes to reaffirm that its membership remains committed to and involved in implementing the CWC at national and international level. Overall we consider that the CWC has so far balanced the necessity of industry verification with the need to protect legitimate industry interests.

Basis of ICCA support

Industry's support for the CWC is a natural extension of its globally recognised and award winning Responsible Care® Global Charter, and especially the Global Product Strategy requiring responsible stewardship of chemical industry products throughout the supply chain. Responsible Care® is industry's widely respected performance foundation and management system – a voluntary initiative under which industry commits continually to improve its environmental, health and safety performance independent of regulatory requirements. To enhance transparency and accountability, periodic reports are issued about industry's performance in areas such as environmental protection, product stewardship, workers' safety and health, and plant and transport safety.[2]

Therefore, industry's internal compliance programmes often extend beyond the legal requirements of, for example, dual-use, drug precursor, and environmental protection regimes. Industry's experience is that regulations essential and commensurate to the objectives pursued are most effective. Regulations should also be administratively manageable, safeguard confidential business information and respect the principle of a level playing field. Moreover, any control scheme should be applied on a universal basis to avoid uneven sharing of the burden and distortions of competition. It therefore imperative

[1] The International Council of Chemical Associations (ICCA) is a council of leading trade organizations and their member companies representing chemical manufacturers in Japan, Australia and New Zealand, Europe, and North and South America. ICCA represents approximately eighty percent of worldwide chemical production. ICCA's focus is on developing global chemical industry positions and evolving programs on issues of international significance to the industry in areas such as health, safety, and the environment; international transport safety; intellectual property; trade policy; and industry efforts to eliminate chemical weapons and diversion of illegal drugs. ICCA also promotes and coordinates Responsible Care® and other voluntary chemical industry initiatives. The chemical associations in forty-five countries implement ICCA's Responsible Care® initiative.

[2] www.icca-chem.org/rcreport/

from a security and a commercial viewpoint that the Convention is ratified and duly implemented by participating State Parties.

The Chemical Industry in a Globalised World

The CWC text was negotiated in the 1980's. However, the global chemical industry has undergone major changes in recent years. Whilst governments have been slow to comply wholeheartedly with the CWC the same cannot be said of industry. In developed countries trade and production controls imposed on industry have been respected and, by and large, the vigilance of chemical manufacturers and traders has been effective. However, the world is an ever-changing and volatile place; few politicians will support more latitude for industry to replace obligatory measures with voluntary controls. The potential for unrest and conflict is ever present. As the terrible incident on the Tokyo underground in 1995 showed, although military use of chemical weapons of mass destruction has been averted, terrorism involving individuals, as opposed to warring states, has raised a new and deadly threat in the (mis)use of chemicals.

So, implementing the CWC has never been more important. Things have not been helped by the fact negotiations on the Convention began formally in 1984 and so the design of the 1997 Convention is based on a chemical industry that has had over 20 years to evolve and during this period significant changes have occurred. We have seen the ebb and flow of multinationals; the rise of the "chemical contractor"; the globalisation of the chemical industry and advances in process technology and techniques.

All this has meant that there is more to monitor, over a much wider and diverse area of the globe, with more diverse governments and regimes involved with different regulations. These changes were driven mainly by globalisation combined with the emergence of new economies and markets as well as rapid developments in science and technology. This has resulted in new realities and trends that have relevance to the CWC as outlined below.

CWC and Business Operational Issues

Safety: The business of chemistry places a premium focus on health, safety and environmental performance. Nevertheless, the industry is highly regulated. For example, compliance with environmental, health and safety regulations for the chemical industry comes at a significant cost. Thus, the chemical industry has invested heavily in increasing safety and reducing emissions. As a result, extensive safety precautions (e.g. double-walled piping, restricted access, medical services, remote control, and protective clothing) are commonplace even with regard to low hazard materials. Such features and measures, along with required safety training for visitors, illustrate a commitment to worker and workplace safety and environmental protection.

Sophisticated Process Control: To ensure consistent and high product quality, most companies have introduced modern process control systems. The introduction and removal of chemicals to and from reaction vessels, the control of process parameters such as reaction time, pressure, and temperature is initiated and supervised in a central control room using modern computer technology, and not within the plant. Using the current displays and computer back-up systems, it can be demonstrated which reactions have taken place. This makes verification more complex because it increases the possibility for loss of proprietary information since these systems are specifically designed to display and not to conceal sensitive and comprehensive data. If managed and protected properly, modern computer technology can help facilitate verification of compliance without risking the loss of proprietary information.

Importantly, reading and interpreting the process control data requires a high degree of expertise on the inspectors' side. Electronic data (e.g. in the process control system or in software systems such as SAP or Microsoft Office) may be the only documentation available. Industry believes implementation of the convention and the Technical Secretariat can benefit from greater knowledge and perhaps even training in the use of such data, as well as from continued dialogue with industry on the business of chemistry.

Integrated sites/industrial parks: As noted earlier, the CWC text was drafted in the mid to late 1980's. Consequently, some CWC definitions do not always apply to the present day business of chemistry. For example, the definition of plant site is sometimes inconsistent with current technological, scientific and physical realities of chemical manufacturing. Today, chemical operations often take place at so-called "industrial parks" where the plant manager typically provides services to several business units, affiliated and non-affiliated companies. He/she has no operational control, and in some cases may not be able to provide access to specific parts of the plant site.

Industrial parks commonly comply with the CWC in two ways. The first way is by every legal entity filing its own declaration. This may increase the number of declarations for one plant site and these declarations may not include parts of the infrastructure specifically mentioned in the CWC (e.g. Verification Annex, Part VII, Nr. 28(g) and (h) for waste, effluent and off-spec handling).

The second way is for business units, affiliated and non-affiliated companies to sign contracts with the plant manager's organisation empowering him or her to file the declarations and to provide access and further support for the inspection team.

Certification: Several audit systems (e.g. ISO 9000, 14000, GMP, GLP)[3] have been developed to improve environmental, safety, health and quality performance. They rely on internal data reporting and auditing supplemented by the use of external auditors. These audits are in addition to regular inspections by environmental, health and safety regulatory agencies. Plant personnel are therefore usually familiar with external auditors. Successfully passing these audits requires – among other things – responsible operations and good documentation. There may thus be synergies between Quality Control and CWC procedures and documents even though the goals are quite different. Companies may chose to utilise documentation compiled for certification purposes in lieu of confidential business information to comply with CWC inspection mandates.

Globalisation: Currently, world chemical industry production exceeds US $ 2.85 trillion annually, and nearly one-third of this production is traded internationally[4]]. Globalisation of the chemical industry has on one hand led to the concentration of production in fewer companies and fewer plant sites, sometimes resulting in "world-scale" plants to realise economies of scale. From this perspective the continuing globalisation should help facilitate and simplify CWC verification. Many of the new investments are for the production of commodity chemicals that will fall outside the scope of the CWC. On the other hand, there are vast investment programmes in China and the Middle East to develop global-scale integrated chemical production sites that will require additional CWC monitoring. Overall, production and trade volumes are expected to maintain growth rates that underscore the importance of universal membership and equitable geographic distribution of CWC inspections.

Capability: Theoretically, chemical weapon agents can be produced in kilo laboratory facilities or in micro plants. However production capability for military use also needs additional equipment such as filling machines and storage tanks. Verification should be limited to chemicals and relevant activities and information as described in the Convention.

Specialisation: Along with globalisation, specialisation is on the rise. This features divesting of activities, profitable or not, outside the company's core competencies. This enables the company to improve its competitive edge, but makes the company more vulnerable to technological or market changes. The protection of confidential and proprietary information therefore is especially important to speciality companies with targeted product portfolios.

Outsourcing ("make or buy") is an outgrowth of specialisation. Vertical integration has become less important. This means that several companies may be involved in the production, processing,

[3] ISO = International Organization for Standardization (www.iso.ch); GMP = Good Manufacturing Practice Regulations by the US Food and Drug Administration (www.fda.gov/opacom/laws/fdcact/fdctoc.htm); GLP = Good Laboratory Practice Principles by the Organization for Economic Co-Operation and Development (www.oecd.org/env/glp)

[4] www.icca-chem.org/issues.htm

consumption, storage, shipping and disposal of one and the same chemical. Some of these activities may not even be declarable. This makes verification of production, processing and consumption as challenging as ever.

Mergers and acquisitions: The 1990's trend toward mergers and acquisitions has reappeared. Company restructuring may further complicate the collection of aggregate and non-aggregate data by National Authorities (NA). Restructuring often also leads to the loss of company "know how" regarding declarations and inspections. It often involves the integration or unification of IT systems that can take years to resolve. It may also lead to frequent changes in the information that has been declared, i.e. company names, operators, etc.

ICCA Key Positions

Importance of Core Treaty Objectives: Industry considers the OPCW's first and foremost objective to be ridding the world of existing chemical weapons and that the OPCW should further concentrate resources to expedite that objective.

National Implementation: According to Article VII of the CWC, each State Party must enact implementing legislation that ensures full implementation of the Convention nationally, and most importantly criminalises CWC-prohibited activities on its territory and by its citizens. State Parties also pledged to provide each other legal assistance in fulfilling their obligations. Despite the availability of assistance from both States Parties and the OPCW, over half of States Parties have yet to adopt national implementing legislations and regulations to meet their non-proliferation and destruction obligations. Even where States Parties have adopted measures there are significant disparities in declaration practices, leading to a range of rules and inconsistent implementation. Whilst this situation persists the confidence of other States Parties in the convention's contribution to non-proliferation and CW elimination worldwide is undermined. This means that some DOC production sites remain undeclared. Another case in point is both the lack and range of rules for mixtures (from 0 to 80%), which complicate trading, sourcing and manufacturing for global enterprises. Industry has to do more because of this lack of uniformity.

Challenge versus Routine Inspections: Routine and challenge inspections serve distinct purposes and rely on different procedures. Routine and challenge inspections are not substitutable. Industry has always understood routine verification of industrial sites to be a confidence-building measure rather than for detecting violations of the CWC. The convention provides a rapid response for investigating alleged violations, a challenge inspection. Alleged violations should be pursued through use of the challenge inspection option, not through the intensification and modification of routine verification.

Sampling and analysis: Industry recognises that sampling and analysis is one means for OPCW inspectors to verify compliance with the CWC. There are a number of technical issues in using sampling as a verification tool. In working with its respective national authorities to develop sampling and analysis procedures, industry consistently underlines the importance of flexible and effective procedures that protect confidential business information. Flexibility will afford facilities options for complying with OPCW sampling requests and fulfilling the OPCW's preference for facility representatives collecting and analysing samples. The importance of protecting company intellectual property during industry inspections cannot be overstated especially in regard to sampling, sample integrity, sampling point selection and the content of reports on inspections involving sampling. Technical aspects of off-site/on-site sampling, such as safety, waste generation, disposal and pass/fail criteria lack definition. Safety, clarity of regulatory compliance and protection of confidential business are challenges inherent in sampling.

In conclusion, we note that the issue of sampling and analysis is still beset by many technical and logistical challenges, the resolution of which is presently not of highest priority given the status of implementation of the convention. Industry is willing to continue the constructive dialogue that has been started with the Technical Secretariat and national authorities.

Confidential Business Information: The safeguarding of confidential business information (CBI) is of critical importance to a globally competitive and high technology sector such as the chemical industry. The ICCA provided input into and has confidence in the Convention's Confidentiality Annex, which acknowledges the centrality of CBI to the business of chemistry. While no major issues have arisen with regard to the protection of CBI by the Technical Secretariat, industry relies on the principles of the Confidentiality Annex for protecting its commercial interests and information. Industry encourages the Technical Secretariat to prioritise access and information relevant and necessary for meeting inspection mandates, as the best means of facilitating compliance and preserving overall facility security.

Security: Safety and security of our sites and products is core to the chemical industry. With many regions of conflict around the world and the threat of anti-establishment terrorist attacks anywhere, industry efforts to mitigate these threats through have necessarily increased. Chemical industry operations are closely regulated and governments as well as NGO's worldwide publicise details about chemical industry plants and products on open websites. Protecting sensitive site plans and methods to mitigate potential security threats is critical to our operations.

Regulatory Synergy: Different security related measures have been introduced in various parts of the world on the chemicals supply chain since the 1st Review CWC Conference. UN Resolution 1540 on illicit brokering and transit supports the non-proliferation process. The new REACH regulation in the EU will extend the use of official authorisations for handling toxic chemicals thereby adding a further control mechanism in the European chemicals supply chain. The ever-changing regulatory compliance burden on industry makes it imperative that national authorities, their security agencies and industry work together to avoid unnecessary or overlapping controls.

Concluding remarks

The ICCA is encouraged by the continuing growth in membership of the CWC and the OPCW's simultaneous compliance assistance to States Parties. To have meaning, universality must be mirrored by full implementation by individual States Parties of their responsibilities. This, plus more uniformity of implementation by national authorities, must be a top priority. The destruction of existing CW stocks and prevention of any further development, production or stockpiling of CW is both a multilateral commitment and expressed OPCW contribution to the broader campaign against global terrorism. Industry, together with governments, is successfully working on further improving risk-based security measures and other aspects of safe management of chemicals. Full and effective implementation of the treaty will maximise its contribution to improving the current global security environment.

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