

CWC verification challenges - need for a paradigm shift?

Dr Ralf Trapp
Independent Disarmament Consultant, CBW
Chessenaz, France

The views presented here are those of the author only; they do not represent any views of Pugwash International

Some recent observations

“the Convention clearly sets out the **hierarchy of risks** posed by different chemicals to its object and purpose. The verification regime under Article VI must therefore correspond to the hierarchy of risks inherent to the respective category of chemicals. Any shift in the distribution of inspections which is contrary to this hierarchy would signal a **departure from the fundamental principles of the verification regime ...**”

RC-2/NAT.5

“... it is important to ... further enhance [the verification system]... . In doing so, new scientific, technological, and industrial developments need to be taken into account. **Today's risks and challenges are not necessarily the same as those that existed when the Convention's negotiations were concluded in September 1992. ... [The] verification regime has to reflect this rapidly evolving environment in the field of chemistry. ”**

RC-2/NAT/13

Some recent observations

The SRC noted that the Annex on Chemicals of the Convention clearly sets out the different levels of risk posed by scheduled chemicals ... In this context, the SRC recalled that the selection of a particular facility or plant site for inspection shall take into account, besides the risk posed by the relevant chemical, *inter alia*, the characteristics of the facility and the nature of the activities carried out there.

CW past/present



CWC “design criteria”

- State CW programs
 - Complex set of criteria for agent selection >>> limited number of agents actually selected
 - Risk perceptions based on past weaponisation, but need for ‘safety nets’
 - Scenarios geared towards battlefield use (‘militarily-significant quantities’)
- CW proliferation concerns
 - State proliferators
 - ‘Proliferation-significant’ quantities
- Industry participation/support
 - Technically sound system of verification
 - Intrusion and burden kept to necessary minimum

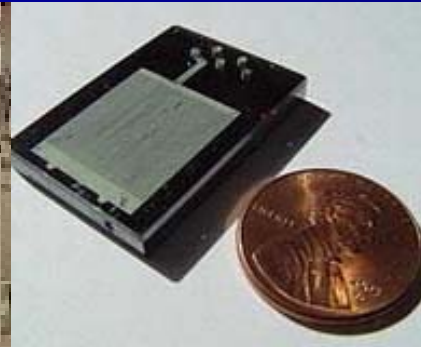
The resulting CWC verification system

- Balance of routine and challenge inspection
- Routine system based on Schedules and thresholds
- OCPF regime as 'safety net' for 'capable' facilities in the chemical industry
- Challenge inspection as 'safety net' against violations, including at undeclared facilities

New realities



New realities (2)



BLUEHERON[®]
BIOTECHNOLOGY

Customer Service
425-368-4060
Bothell WA
www.blueheronbio.com

Ordering Customer Data Pricing File Area FAQs Secure Email Log Off

Ordering De Novo Synthesis: Molecule Information

<input type="text"/>	*Unique nickname
<input type="text"/>	*Length of sequence
<input type="text" value="AGATACAGATGATATATAAAGTATAT7..."/> <input type="text" value="ATA TGGCA TGGCA TCTCTGAGACTCTC"/> <input type="text" value="ATGGCA TGGCA TAGCTGACTGATGGC"/>	*DNA sequence
<input type="text" value="Blue Heron pUCmnuMCS"/>	*Choose a Blue Heron Standard Vector
<input type="text"/>	Quote number
<input type="text"/>	Comments or special instructions.

*Required field



What has changed?

- State programs:
 - risk of traditional types/stockpiles of CW diminishing?
 - novichoks / IVAs – circumventing the Schedules?
 - incapacitants (“NLW”) – new types of chemical warfare?
- Non-State actors:
 - Tokyo 1995; Iraq 2008/9
 - Improvised devices, TICs, toxins, weapons in State programs/forces
- Science (CB convergence, biological revolution)
- Technology (bio-synthesis, microreactors)
- Markets (new production locations, extensive trade in (bio)chemicals and equipment, including procurement *via* the Internet)

What should CWC verification aim for?

- Non-resumption of production of traditional CW
 - Schedules, better-targeted OCPF regime
- Detect/deter State activities related to novel agents
 - Add new compounds to the Schedules
 - Risk-based evolution of OCPF verification regime
- Help preventing misuse of dual-use chemicals
 - Verification of new types of facilities/activities (e.g., peptides, bioregulators, toxins)?
 - Other governance measures (confidence building, national, self-regulatory, civic society)
- Help identifying weaknesses in national implementation systems
 - Feedback between VER and ICA activities / results?

Necessary adjustments (mentally and in practice)

- List-based ----> GPC-based
 - Example from export controls: catch-all clause
- Constrained by declaration data ----> use of “information available to the Technical Secretariat”
 - Example nuclear safeguarding, environmental laws
- Inspection as primary verification tool ----> comprehensive evaluation of all available information for verification purposes
- OPCW implementation work in “pillars” ----> exploiting synergisms between verification, international cooperation, national implementation
- Synchronized with national oversight, self-regulatory measures, education and outreach



Thank you!

Comments and questions?

ralf.trapp@gmail.com

<http://trapp.yolasite.com/>