

SYNERGIES ACROSS VERIFICATION REGIMES: NUCLEAR SAFEGUARDS AND CHEMICAL WEAPONS CONVENTION COMPLIANCE

XA0200169

STEVEN P. KADNER

Aquila Technologies Group, Inc., NE, Albuquerque, New Mexico, USA

ELIZABETH TURPEN

Office of Senator Pete V. Domenici, Washington, D.C., USA

ABSTRACT

In the implementation of all arms control agreements, accurate verification is essential. In setting a course for verifying compliance with a given treaty—whether the NPT or the CWC, one must make a technical comparison of existing information-gathering capabilities against the constraints in an agreement. Then it must be decided whether this level of verifiability is good enough. Generally, the policy standard of "effective verification" includes the ability to detect significant violations, with high confidence, in sufficient time to respond effectively with policy adjustments or other responses, as needed. It is at this juncture where verification approaches have traditionally diverged. Nuclear safeguards requirements have taken one path while chemical verification methods have pursued another.

However, recent technological advances have brought a number of changes affecting verification, and lately their pace has been accelerating. First, all verification regimes have more and better information as a result of new kinds of sensors, imagery, and other technologies. Second, the verification provisions in agreements have also advanced, to include on-site inspections, portal monitoring, data exchanges, and a variety of transparency, confidence-building, and other cooperative measures.

Together these developments translate into a technological overlap of certain institutional verification measures such as the NPT's safeguards requirements and the IAEA and the CWC's verification visions and the OPCW.

Hence, a priority of international treaty-implementing organizations is exploring the development of a synergistic and coordinated approach to WMD policy making that takes into account existing inter-linkages between nuclear, chemical, and biological weapons issues. Specific areas of coordination include harmonizing information systems and information exchanges and the shared application of scientific mechanisms, as well as collaboration on technological developments. For example, just as cost-effective and readily applicable technologies can solve the problems faced by the nuclear safeguards community, these same technologies offer solutions for the CWC safeguards regime. This paper discusses similarities between nuclear and chemical weapons arms control in terms of verification methodologies and the potential for shared applications of safeguards technologies.

SUMMARY

In the implementation of all arms control agreements, accurate verification is essential. In setting a course for verifying compliance with a given treaty—whether the NPT or the CWC, one must make a technical comparison of existing information-gathering capabilities against the constraints in an agreement. Then it must be decided whether this level of verifiability is good enough. Generally, the policy standard of "effective verification" includes the ability to detect significant violations, with high confidence, in sufficient time to respond effectively with policy adjustments or other responses, as needed. It is at this juncture where verification

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Hence, a priority of international treaty-implementing organizations is exploring the development of a synergistic and coordinated approach to WMD policy making that takes into account existing inter-linkages between nuclear, chemical, and biological weapons issues. These efforts must be focused in order to (1) create awareness at the public, governmental and intergovernmental levels of the importance of synergies and coordination between multilateral efforts; (2) survey existing initiatives; (3) foster discussion and interaction among international institutions, scholars and other relevant stakeholders who can cooperate to identify and examine opportunities; and (4) identify mechanisms, next steps, and feasible win-win paths forward for each organization. Specific areas of coordination include harmonizing information systems and information exchanges and the shared application of scientific mechanisms, as well as collaboration on technological developments. For example, just as cost-effective and readily applicable technologies can solve the problems faced by the nuclear safeguards community, these same technologies offer solutions for the CWC safeguards regime. This paper discusses similarities between nuclear and chemical weapons arms control in terms of verification methodologies and the potential for shared applications of safeguards technologies.

These efforts eventually will result in the promotion of inter-linkages between multilateral efforts in the areas of (a) harmonization of information systems and information exchanges, (b) finance, (c) issue management, (d) scientific mechanisms, and (e) synergies for sustainable development.

The monitoring of treaty implementation follows the legal framework of each treaty and the experience gained within that framework. Difficulties in implementing specific treaties are somewhat documented but there is no comparative overview. Many verification groups have noted that the nature of verification had evolved both as practical experience increased and as the verification objectives became increasingly diversified. An important lesson is that verification in each context might benefit from the experience gained and methods used in the others. As a result, member states must encourage and facilitate the development of communication channels and other contacts among verification implementing organizations.

The secretariat of the Organization for the Prohibition of Chemical Weapons agrees with the IAEA statement, provided that the independent status of organizations involved, and their respective rules on protection of sensitive information, are taken into account. In 1998, UNIDIR developed a project for a series of seminars with international treaty-implementing organizations in order to highlight common interests and problems, encourage ratification and implementation and promote dialogue between practitioners (A/53/187, para. 23).

Implementation was initiated in 1999; to avoid duplicating work, the Department could collaborate with UNIDIR in this respect.