

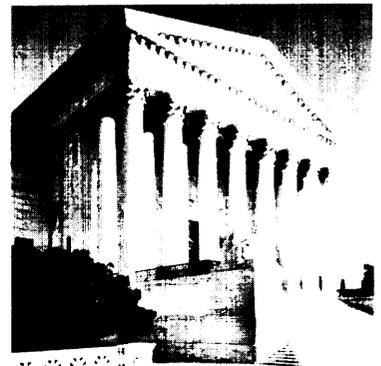
Constitutional and Other Legal Issues 4

Unavoidable tensions exist between the U.S. Government's responsibility to uphold the basic constitutional rights of its citizens and the intrusive verification measures needed to ensure that no chemical weapons are being produced on its territory. For example, the *Fourth* Amendment of the U.S. Constitution shields both citizens and corporations against "unreasonable searches and seizures," while the Fifth Amendment protects them from self-incrimination and government confiscation of private property without due process and fair compensation.¹ These constitutional protections cannot simply be preempted by an international treaty. While arms-control treaties have the force of law, they can only be implemented domestically to the extent that they meet the legal standards of the U.S. Constitution.²

Although the great majority of U.S. companies will want to be good corporate citizens by complying voluntarily with the CWC's reporting and inspection obligations, it is possible that a handful of firms may consider onsite inspections a form of harassment and refuse to allow an inspection team to enter their plants. Indeed, the large number of facilities potentially subject to routine or challenge inspections makes it likely that a few such cases will arise. Thus, unless the legal questions over the constitutionality of the CWC are clearly resolved, a company might be able to keep foreign inspectors out of its plants. Such

¹ The Fourth Amendment reads, "The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized." The Fifth Amendment states, in part, "No person shall . . . be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation."

² Eric Hamburg, *Arms Control Verification and the U.S. Constitution*, working paper (Stanford University: Center for International Security and Arms Control, August 1989).



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a legal challenge could result in significant delays in treaty implementation, seriously embarrassing the U.S. Government. It will therefore be necessary to address these constitutional issues in the domestic enabling legislation before the treaty enters into force.

ROUTINE INSPECTIONS

CWC inspection teams will expect to conduct routine inspections of privately owned facilities in the United States without the need to obtain a valid search warrant. Yet the Fourth Amendment generally bans Government searches conducted at random or on the basis of vague suspicions, without “probable cause” to believe that the search will uncover evidence of illegal activity. Although the meaning of “probable cause” is somewhat ambiguous, it has been characterized as “a fair probability that contraband or evidence of a crime will be found in a particular place.” According to numerous Supreme Court rulings, a constitutionally valid search cannot occur until the government persuades a U.S. judge or magistrate that probable cause exists and the judge has issued a valid search warrant. The purpose of this procedure is to allow a neutral intermediary to evaluate the legitimacy of the government’s search request. However, the Supreme Court has explicitly avoided any ruling on whether foreign policy or national security interests can justify an exemption from the usual Fourth Amendment requirement for search warrants to precede searches.⁴

Both routine and challenge inspections of declared commercial facilities under the CWC raise Fourth Amendment issues because they call for possibly warrantless searches in some areas where there is a reasonable expectation of privacy. Routine inspections are less problematic

than challenge inspections from a constitutional standpoint because of the scope and nature of the affected entities (routine inspections apply to selected commercial facilities, whereas challenge inspections cover potentially any location in the United States, including private residences) and the reasons for the search (routine inspections are preplanned, whereas challenge inspections are based on suspicion). Accordingly, while the CWC does not explicitly address the constitutionality of routine inspections, U.S. negotiators insisted that the treaty provisions on challenge inspections recognize the right of privacy enshrined in the Fourth Amendment. To this end, Part X of the CWC Verification Annex states that a challenged facility must give the inspection team the greatest possible access “taking into account any constitutional obligations it may have with respect to proprietary rights or searches and seizures.” Ironically, because the CWC provides an explicit waiver on constitutional grounds for challenge inspections but not for most routine inspections, the latter are now actually somewhat more problematic from a Fourth Amendment standpoint.

In the great majority of cases, routine inspections will not pose Fourth Amendment problems because companies will consent to inspection by negotiating a facility agreement in advance. In cases where U.S. companies seek to deny entry to CWC inspectors on constitutional grounds, legal scholars have proposed two possible remedies.

| “Pervasive Regulation” Exception

The Supreme Court has ruled that a company’s expectation of privacy under the Fourth Amendment can be reduced by the extent to which it is regulated or licensed by the government. Indus-

³ *Illinois v. Gates*, 462 U.S. 213 (1983).

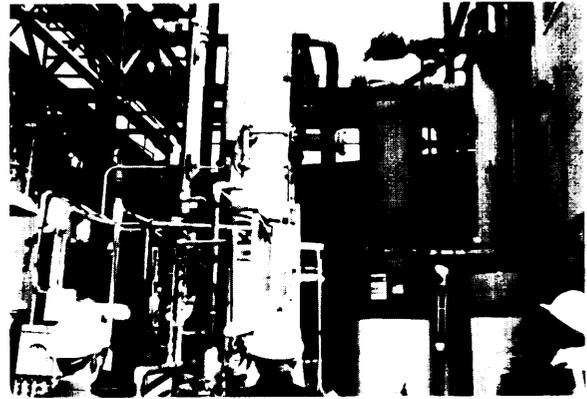
⁴ Edward A. Tanzman, “Constitutionality of Warrantless On-Site Arms Control Inspections in the United States,” *Yale Journal of International Law*, vol. 13, No. 1, 1988, p. 67.

⁵ “Conduct of Inspections,” appendix I, annex 2, paragraph 41, in Conference on Disarmament, *Draft Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction*, extracted from CD/1173, Sept. 3, 1993, p. 159.

tries that are “pervasively regulated” because they pose risks to public health or safety may be required to submit to warrantless searches, on the grounds that requiring a warrant would give the target of the search sufficient advance notice to conceal violations. The legal premise of pervasive regulation is that the statute that regulates the industry is the fictional equivalent of a search warrant.

For example, in a 1981 case, *Donovan v. Dewey*⁶, the Supreme Court established a new standard permitting extensive government inspections of commercial property without a warrant. The case concerned the Federal Mine Safety and Health Act, which directs Federal officials to inspect underground mines at least four times a year and surface mines at least twice a year to enforce safety standards. This statute specifically provides for inspections without advance notice and requires the Secretary of Labor to institute court actions in cases where inspectors are denied admission. In declaring the Act constitutional, the Supreme Court found that the government had “greater latitude” to conduct warrantless inspections of commercial property than of private homes.⁷

The Court ruled that warrantless safety inspections of mines were justified because of the notorious history of serious accidents and unhealthy working conditions in the mining industry, along with Congress’s determination that unannounced inspections were necessary if the safety laws were to be effectively enforced. Yet the Court warned that warrantless inspections of commercial property would be constitutionally objectionable if their occurrence was “so random, infrequent, or unpredictable that the owner has no real expectation that his property will from time to time be inspected by government offi-



Onsite inspections under the CWC must be consistent with constitutional protections against “unreasonable searches and seizures.”

cial. *Dewey* therefore appears to permit warrantless inspections of commercial establishments if the law specifies a regular number of inspections that must be carried out within a prescribed period and according to reasonable standards.

In a 1987 case, *New York v. Burger*, the Court established three tests that must be met for a pervasively regulated industry to be searched without a warrant:

1. there must be a “substantial government interest” involved,
2. the warrantless inspections must be “necessary to further the regulatory scheme,” and
3. there must be “certainty and regularity of its application.”

The 1986 case of *Dow Chemical Co. v. the United States* raises some doubt, however, about the extent to which the “pervasive regulation” rationale for warrantless inspections applies to the U.S. chemical industry.¹⁰ Dow filed suit against the EPA after some of the agency’s inspectors, who had been denied access to one of the

⁶ 452 U.S. 594 (1982).

⁷ *Donovan v. Dewey*, 452 U.S. 594, 598-599 (1981).

⁸ *Ibid.*

⁹ *New York v. Burger*, 482 U.S. 691 (1987).

¹⁰ *Dow Chemical Co. v. the United States*, 476 U.S. 227 (1986), p. 238.

company's plants, hired a commercial plane to overfly the plant and take high-resolution color photographs for regulatory purposes. The company's attorneys argued that the overflight constituted an illegal search under the Fourth Amendment. Although the Supreme Court rejected this line of argument, it found that individual chemical firms still have some constitutional right to privacy, albeit not as much as private citizens in their homes.¹¹

Edward A. Tanzman, a legal scholar at Argonne National Laboratory, contends that because of the Court's dicta in the *Dow* case, there is some uncertainty as to whether the U.S. chemical industry qualifies as being pervasively regulated. In order to meet the *Burger* criteria for warrantless inspections, he contends, the implementing legislation would have to provide probable cause for a pervasive regulatory scheme (e.g., that the treaty-controlled facilities pose a potential threat to public health and safety) and mandate inspections that are "certain and regular" (e.g., every few months).

One way to meet the latter requirement, Tanzman suggests, would be for the implementing legislation to establish a comprehensive inspection scheme that "pervasively regulates" the domestic chemical industry. Under this proposal, the U.S. National Authority would conduct its own regular inspections of declared chemical plants to verify that the initial CWC declarations are accurate and complete. Once the National Authority had established a "certain and regular" presence of its own inspectors and thus lowered the industry's expectation of privacy at declared sites, the international inspectors would have legal grounds to conduct their own warrantless inspections.

It is unlikely, however, that the U.S. National Authority would have the resources to implement a pervasive regulation scheme, which would also be anathema to industry. Thousands of U.S. Government inspections would have to be conducted to establish the legal basis to conduct far fewer international inspections. Whether this complex and costly solution is really necessary remains a matter of debate. Some analysts believe that the "certain and regular" test can be met in other ways than the *timing* of the inspections, for example, by ensuring consistency and regularity in the overall application of the regulatory scheme.

I Administrative Warrants

Another proposed solution to the Fourth Amendment problem would be for the implementing legislation to allow CWC inspectors to use the "administrative warrant" procedure developed by U.S. regulatory agencies for unannounced inspections of private companies.¹² In a 1978 case, *Marshall v. Barlow's, Inc.*¹³, the Supreme Court struck down as violating the Fourth Amendment a provision of the Occupational Safety and Health Act authorizing Federal inspectors to conduct warrantless searches of any employment facility covered by the Act for safety hazards and violations. The Court held that Federal regulation for limited purposes did not constitute "pervasive regulation, and that giving OSHA inspectors unlimited discretion to choose which businesses to inspect and when to do so could render companies potentially vulnerable to arbitrary searches with no assurance as to limitations on scope. The Court also found that warrantless inspections were not necessary to serve an impor-

¹¹ David A. Koplow, "Back to the Future and Up to the Sky: Legal Implications of 'Open Skies' Inspection for Arms Control," *California Law Review*, vol. 79, No. 1, March 1991, pp. 467-469. For example, the chemical industry believes that aerial overflights of chemical plants using aircraft equipped with sensitive "sniffers" for scheduled compounds could present a threat to proprietary data and would thus be subject to legal challenge on Fourth Amendment grounds.

¹² J. Aroesty, K. A. Wolf, and E. C. River, *Domestic Implementation of a Chemical Weapons Treaty*, report No. R-3745-ACQ (Santa Monica, CA: RAND Corp., October 1989), p. 26.

¹³ 436 U.S. 307 (1978).

tant governmental interest, since most businesses would consent to inspection.¹⁴

In those cases where a business to be inspected refused consent, the Court ruled that OSHA inspectors should apply to a Federal judge or magistrate for an *administrative search warrant*, using a streamlined procedure that does not require notifying the inspected party in advance. To obtain such a warrant, the government must demonstrate ‘administrative probable cause,’ meaning that the public interest in the inspection (e.g., protection of public health and safety) outweighs the invasion of privacy involved.¹⁵ The standard for obtaining an administrative warrant is much less demanding than that for a criminal warrant, and the procedure is relatively easy and straightforward. The inspectors need only show that a specific business has been chosen for inspection on the basis of a general administrative plan. Even without the need to show criminal probable cause, however, the requirement for an administrative warrant assures the interposition of a neutral officer to establish that the inspection is reasonable and properly authorized.¹⁶

Administrative warrants can only be used for searches that are conducted primarily on the basis of *neutral and objective criteria* rather than on suspicion of a violation. For example, when administrative searches are used to enforce building codes, the choice of which building to inspect must be based on its age, the date of the last inspection, or whether the structure has exterior fire escapes or a sprinkler system. If the principal intent of the inspection is to find evidence of a suspected violation, a criminal search warrant is required.

Critics of the administrative-warrant solution argue that routine CWC inspections do not fully meet the constitutional criteria for administrative

searches, since they are based only partly on neutral and objective criteria. Routine inspections will occur with *some* regularity but not as much as required for administrative searches under domestic regulatory schemes, and the choice of which facilities to inspect will be influenced by the ease with which they could be misused to produce chemical weapons. As a result, Tanzman contends that U.S. courts may find the process of issuing administrative warrants for routine inspections too pro forma and not sufficiently protective of Fourth Amendment rights.

Advocates of the administrative-warrant approach respond that routine inspections meet the broad constitutional standards for issuing administrative warrants and that the courts will not hold an international treaty to the same strict legal standard as a domestic regulation. These analysts also point out that routine inspections are not based on suspicion but are simply intended to verify that a plant operations are consistent with its declared activities. Moreover, the advance-notice requirement makes the inspections less arbitrary.

In sum, legal analysis suggests that the CWC verification regime can and should respect constitutionally protected rights while fulfilling treaty obligations. The debate over the best way to ensure that routine inspections comply with the Fourth Amendment has not yet been resolved, however, and will have to be addressed by the government attorneys drafting the CWC implementing legislation.

CHALLENGE INSPECTIONS

Under the challenge-inspection provisions of the CWC, a State Party can request an international inspection and have it carried out at any location or facility (public or private) on the

¹⁴*Marshall v. Barlow's, Inc.*, 436 U.S. 307, 314 (1978).

¹⁵Edward A. Tanzman and Barry Kellman, *Harmonizing the Chemical Weapons Convention With the United States Constitution*, technical report No. DNA-TR-91-216 (Alexandria, VA: Defense Nuclear Agency, Apr. 1992), p. 46.

¹⁶Congressional Research Service, *The Constitution of the United States of America: Analysis and Interpretation* (Washington, DC: U.S. Government Printing Office, 1987), p. 1167.

territory of another participating country that is suspected of a treaty violation (e.g., clandestine production or stockpiling of CW agents). The CWC also states that if the inspected State Party provides less than full access to the facility, activities, or information in question, it must make “every reasonable effort” to provide alternative means to clarify the possible non-compliance concern that generated the challenge request.¹⁷

Challenge inspections are by definition based on suspicion because they can only be triggered when the requesting State Party has “questions concerning possible noncompliance with the provisions of this Convention.”¹⁸ Indeed, the general nature of the noncompliance concern must be included in the inspection request. Since the purpose of the inspection is to find evidence of a suspected treaty violation, more is involved than simply assessing compliance with a regulatory scheme. Challenge inspections are therefore inherently discriminatory and cannot justify the use of an administrative warrant. Instead, if a challenged facility refuses to grant access to international inspectors, U.S. officials will need to obtain a search warrant that meets the criteria for *criminal* probable cause, which are stricter.

There are good reasons, of course, why it would be undesirable in most cases to require a criminal search warrant for challenge inspections. First, the need to establish probable cause for an inspection could compel the challenging party to disclose sensitive intelligence information it would not want to release. Second, obtaining a warrant could impose an unacceptable delay on the inspection, whose effectiveness derives largely from being carried out on relatively short notice.¹⁹ Nevertheless, search warrants will probably be

sought where the challenged facility does not voluntarily provide access.

While plant officials may not use constitutional privacy rights as an excuse to evade their treaty obligations, they may refuse on legitimate Fourth Amendment grounds to allow the inspectors to enter arbitrarily into private homes or businesses to search for contraband or telltale evidence.² Because the CWC states that challenge inspections must respect constitutionally protected privacy rights, the United States cannot be held in violation of the treaty if, after a search warrant has been denied on constitutional grounds, the owners of the challenged plant continue to block access to international inspectors. In nearly all cases, however, the CWC should satisfy the chemical industry’s constitutional concerns by allowing States Parties to negotiate the extent and nature of intrusiveness before a challenge inspection begins.

PENAL SANCTIONS

The CWC requires States Parties to enact legislation making violations of the treaty a crime under domestic law, and imposing penal sanctions on individuals or corporations that engage in such activities. In addition, the treaty allows inspectors to ask questions of plant personnel; although answers are not compelled, there would be pressure to respond. Some legal scholars believe that these provisions may conflict with the Fifth Amendment, which protects individuals from being forced to give self-incriminating testimony. For example, if evidence garnered during an inspection could lead to the bringing of criminal charges against the plant manager for violating the CWC or, more likely, some other domestic statute, forcing the manager to answer

¹⁷ Appendix I, Annex 2, paragraph 43, *Draft Chemical Weapons Convention*, op. cit., p. 160.

¹⁸ “Procedures for Challenge Inspections,” Article IX, paragraph 8, *Draft Chemical Weapons Convention*, op. cit., p. 37.

¹⁹ Edward A. Tanzman and Barry Kellman, “Legal Implications of the Multilateral Chemical Weapons Convention: Integrating International Security With the Constitution” *International Law and Politics*, vol. 22, 1990, p. 498.

²⁰ David A. Koplow, “Arms Control Inspection: Constitutional Restrictions on Treaty Verification in the United States,” *New York University Law Review*, vol. 66, May 1988, p. 355.

domestic statute, forcing the manager to answer questions might violate his or her Fifth Amendment protection against self-incrimination. Thus, for the treaty to comply with the Constitution, a plant manager questioned by international inspectors must retain the right not to respond to questions in a way that might be incriminating.

A related issue is whether evidence obtained from a CWC inspection of the violation of an unrelated statute, such as an environmental or worker-safety law, could be used in a subsequent criminal prosecution against the plant owner.²¹ In legal parlance, this issue is known as the “fruit of the poisonous tree” problem: is evidence obtained from a potentially tainted source admissible in a criminal prosecution? Some legal scholars contend that the transfer of information from CWC inspectors to U.S. law enforcement officials should be strictly regulated so that treaty inspections do not become criminal searches in the guise of administrative inspections. This constitutional problem can be avoided if the implementing legislation states that evidence gathered during CWC inspections may only be used in prosecutions directly related to the treaty. Such “use immunity” means that no evidence obtained during a CWC inspection could be used against the plant manager if he were subsequently prosecuted for another offense on the basis of independent evidence.

Promising use immunity for evidence of crimes unrelated to the CWC would encourage cooperation with inspections by companies that are in full compliance with the treaty but fear being accused of violations of domestic environmental or worker-safety laws.²² Advocates of this approach also contend that U.S. courts would be more likely to uphold the constitutionality of warrantless CWC inspections if evidence of unrelated criminal conduct discovered during an inspection could not be used to prosecute plant personnel.²³

Since reasonably effective mechanisms for enforcing U.S. domestic environmental and worker-safety laws already exist, government authorities should not have to rely on CWC inspections for this purpose. Nevertheless, some legal analysts argue that violators of domestic laws should not be able to exploit use immunity under the CWC as a shield for criminal activity, and that if U.S. Government officials escorting international inspectors happen to observe evidence of violations of domestic laws, that evidence should be admissible in court. The issue of use immunity will have to be resolved in the implementing legislation.

Congress will also have to decide whether penal sanctions should be invoked only for violations of the fundamental ban on acquisition of chemical weapons, or whether they should also apply to mere technical breaches of the reporting obligations. A related issue is whether the penal sanctions required by the CWC should be criminal (including prison sentences), civil (fines or other administrative penalties such as the loss of a license), or some combination of the two.

COMPLIANCE WITH ENVIRONMENTAL AND SAFETY LAWS

Onsite inspections under the CWC will have to comply with U.S. Federal, State, and local environmental regulations, raising issues that may have to be addressed in the implementing legislation. Some analysts have raised the concern that if toxic chemicals are involved in the production of a commercial product, samples obtained from the production line might have to be considered hazardous waste. As a result, the transport and disposal of such samples would have to follow regulations pursuant to the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act (RCRA), and

²¹ Tanzman and Kellman, *Harmonizing the Chemical Weapons Convention*, op. cit., p. 61.

²² Tanzman and Kellman, “Legal triplications of the Multilateral Chemical Weapons Convention,” op. cit., p. 517.

²³ Tanzman and Kellman, *Harmonizing the Chemical Weapons Convention*, op. cit., p. 62.

other laws. Plant owners would also have to include accidental releases of toxic chemicals during inspections in their Emergency Response Plans.

The samples taken by the inspection teams are expected to be relatively small in volume (in the hundreds of grams), minimizing the problem of disposing of them according to established procedures. Nevertheless, since State environmental regulations can be more (but not less) stringent than Federal regulations and thus vary in severity, some legal scholars have suggested that the CWC implementing legislation should preempt State environmental laws by establishing a uniform Federal standard for the disposal of toxic samples.²⁴ Environmental groups such as Greenpeace oppose this proposal, however, on the grounds that applying a single Federal standard to the disposal of samples would set a bad precedent. Not only would it undermine the States' authority to regulate other hazardous wastes unrelated to the treaty, but it could weaken their ability to ensure that the destruction of chemical-weapon stockpiles meets adequate public-health standards.²⁵

LIABILITY ISSUES

U.S. chemical companies are concerned about being held liable for damages should members of a CWC inspection team be injured or killed by exposure to plant hazards, or should inspections result in the accidental release of hazardous chemicals that damage plant workers or the surrounding environment. In order to ensure the safety of the inspectors, the OPCW will be required to certify and issue protective equipment such as gas masks and flashlights. The precise technical parameters of these items are to be negotiated by the PrepCom, giving the United States an opportunity to make sure this equipment meets the necessary safety standards.

Nevertheless, U.S. companies are currently responsible for any serious injury suffered inside their facilities; to limit their liability, they require all visitors to sign a waiver freeing the company from future litigation. Since the CWC does not address the liability issue, chemical companies want legally binding guarantees from the U.S. Government that they cannot be sued or held responsible for physical injury, including death, that occurs during an inspection.²⁶ Such a waiver might be provided in the implementing legislation, the facility agreement, or both. Another solution might be for the OPCW to set up an insurance fund to cover injury or death suffered by inspectors in the line of duty and to waive any claim on the inspected facilities. The PrepCom and the implementing legislation will also need to assign liability for accidental damage to a chemical facility caused by international inspectors.

EXPORT CONTROLS

Another task for the implementing legislation is to establish punishments for U.S. companies that violate the trade restrictions on dual-use chemicals mandated by the CWC. At the same time, the U.S. chemical industry wants the implementing legislation to remove any discrepancies between the multilateral export controls imposed by the CWC and unilateral U.S. controls on chemical precursors and equipment, both in terms of the items controlled and the proscribed destinations. At present, U.S. companies must obtain an export license to sell dual-use chemicals and equipment to states that are not members of the Australia Group, a forum of chemical-exporting countries that since 1985 has coordinated national export controls in this area. U.S. chemical exports are also subject to unilateral export-control regimes such as the Enhanced Proliferation Control Initiative (EPCI) and the

²⁴Prof. Barry Kellman, DePaul University College of Law (Chicago), presentation on "Implementing Legislation of the Chemical Weapons Convention" sponsored by The Committee for National Security, Washington, DC, Apr. 16, 1993.

²⁵Sebia Hawkins, Greenpeace, personal communication, June 7, 1993.

²⁶Barry Schneider, "The Russians Are Coming," *Across the Board*, vol. 28, No. 3, March 1991, p. 27.

Iran-Iraq Arms Nonproliferation Act. Although the CWC mandates export controls only on specified chemicals, the U.S. unilateral controls also cover chemical production equipment, technical data, and licensed process technologies.

The U.S. Government defends unilateral controls on the grounds that they slow the spread of chemical weapons by making their acquisition more difficult and costly. But industry representatives complain that unilateral controls increase the time, cost, and uncertainty associated with foreign trade and reduce the ability of U.S. firms to compete in foreign markets. According to a statement by the Dow Chemical Co., U.S. unilateral export controls restrict the company's efforts to supply its customers and subsidiaries efficiently and to share product, process, and production technology and innovations intra-company.²⁷

After the CWC enters into force, the Australia Group countries are likely to liberalize their export controls on "dual-use" chemical precursors and equipment for countries that sign, ratify, and demonstrate full compliance with the treaty, while tightening controls on chemical trade with non-Parties.²⁸ Such a liberalization of U.S. chemical export controls would benefit U.S. industry. For example, if a country that is currently subject to stringent export controls ratifies the CWC and

remains in full compliance with the treaty, then one could make the case that U.S. companies should have an easier time obtaining export licenses to sell that country precursor chemicals and technologies.²⁹ Tightened trade restrictions with likely non-Parties (e.g., Iraq, Libya, Syria, and North Korea) would not create much of a problem for U.S. firms because these states are not major export destinations, at least for treaty-controlled chemicals. At the same time, liberalized trade with States Parties would eliminate many of the unilateral constraints that have put U.S. companies at a disadvantage with respect to their foreign competitors.

An opportune time to reform U.S. export controls might be either during the drafting of the CWC implementing legislation or the reauthorization of the Export Administration Act. Given the likely delay in fully implementing the inspection regime, however, the U.S. Government may be reluctant to relax unilateral export controls until certain states of proliferation concern that have signed and ratified the CWC have clearly demonstrated their compliance. For this reason, restrictive chemical export controls--and, presumably, their impact on U.S. industry--would well continue for at least the next decade.

²⁷ Dow Chemical CO., Government Relations Department, "Issue Profile: Chemical Weapons," 3-page unpublished document, Feb. 12, 1993, p. 1.

²⁸ Under the CWC, controls on export of Schedule 2 chemicals will begin 3 years after the treaty enters into force; until then, end-use certificates will be required certifying that the chemicals will be used strictly for civilian purposes. Controls on export of Schedule 3 chemicals may also be implemented 5 years after entry-into-force, although a final decision has not yet been made.

²⁹ Dan Charles, "Chemical Weapons Ban: Now for the Hard Work," *New Scientist*, vol. 137, No. 1857, Jan. 23, 1993, p. 7.