As a consequence of the concern over the spread of chemical and biological weapons which was highlighted by the Gulf War, the U.S. Commerce Department in 1991, issued new regulations which impose foreign policy controls on exports from the U.S., and reexports of specified types of chemicals, equipment and technical data. Most of these items are “dual use” in nature because they have ordinary industrial uses and capabilities, as well as potential uses for making chemical or biological weapons. Following a brief discussion of the U.S. export control regime and its application to exporters operating in other countries, this article reviews the new regulations, their unprecedented scope, and the concerns and objections voiced by U.S. industry representatives, all with a view to the impact that the new controls will have on U.S. industry and foreign companies dealing with U.S. firms. This article concludes that while it would be impossible to name a U.S. company that does not support the policy of preventing manufacture of chemical weapons, it would be equally difficult to find such an entity that does not consider the new regulations, a net to catch the wind because of the lack of multilateral agreement.

Vain the ambition of kings . . . [who] weave but nets to catch the wind.

John Webster

The Devil’s Law Case (1623)
Several weeks before allied tanks and troops rolled into Kuwait to liberate it from the occupying Iraqi forces, President Bush—through his Enhanced Proliferation Control Initiative (EPCI)—had mobilized government agencies in Washington, D.C. to carry out an objective whose gravity and urgency was highlighted by the danger then facing both allied troops and neighboring nations of Iraq: namely, to take all steps necessary to ensure that U.S. industry did not aid non-ally governments, such as that of Iraq, in their efforts to acquire or enhance the capability to develop, produce, stockpile, deliver or use chemical or biological weapons.

The U.S. Department of Commerce ("Commerce") responded to the EPCI by issuing on March 7, 1991, three new regulations which impose new "foreign policy controls" on exports of specified types of chemicals, equipment, and technical data, most of which are "dual use" in nature because they have ordinary industrial uses and capabilities, as well as potential uses for making chemical or biological weapons. Many of these items are readily available from sources outside of the United States.

The practical effect of the new export controls is that items which previously could have been exported without any affirmative action by Commerce may now not be exported unless clearance is obtained from Commerce through issuance of a validated license. This will often create significant time delays before exportation can occur, and in some instances will result in refusal by Commerce to permit exportation of a covered item to a particular destination.

While the U.S. government has unilaterally promulgated these new regulations, it has vowed to try to persuade other nations to adopt similar controls, perhaps as part of a multilateral agreement. Nevertheless, issuance of the new regulations prompted an unusually high number of domestic firms and industry associations (63 in total) to file comments with Commerce objecting to portions of them. The type of industries represented by the commentators is extremely diverse, ranging from chemical production to food processor manufacturing to overnight delivery service. Several of the comments criticized the regulations as being overly broad in their coverage of chemical precursors and equipment, and complained that the regulations will be both ineffective in halting the proliferation of chemical and biological weapons, and deleterious to U.S. competitiveness in international markets.

1. Fact Sheet on Enhanced Proliferation Control Initiative, The White House, Office of the Press Secretary (Dec. 13, 1990). The EPCI was designed to implement Executive Order 12735 of November 16, 1990, which was intended to combat the spread of chemical and biological weapons.


3. See supra note 1; 56 Fed. Reg. 10,756; and discussion, infra.

4. The comments are available for review at the Bureau of Export Administration Freedom of Information Records Inspection Facility, room 4518, Department of Commerce, Washington, D.C.
This article reviews the three new regulations, their unprecedented scope, and the concerns and objections voiced by U.S. industry representatives, all with a view to the impact that the new controls will have on U.S. industry and foreign companies dealing with U.S. firms. We begin our discussion by briefly examining the U.S. export control regime and its application to exporters operating in other countries.

I. U.S. EXPORT CONTROL REGIME

All commodities and technical data originating in the United States are subject to U.S. export control laws—regardless of the owner’s nationality—whenever they are exported from the United States or reexported from any foreign country to another foreign country. Thus, a French company’s sale of a computer chip to a Taiwanese company would be subject to U.S. export laws if the chip was produced in the United States. United States export laws also often apply to U.S. components and technical research which are incorporated into commodities produced outside of the United States. Furthermore, subject to certain exceptions, the U.S. government generally takes the position that United States controls will apply to a commodity or technical data which originated in a foreign country and subsequently was brought to the United States and then reexported without substantial transformation taking place. This means that U.S. export law would regulate the exportation from the United States of a chemical produced in Germany and subsequently warehoused in the United States.

While U.S. export laws are implemented and enforced by several different federal agencies, including the Departments of State, Defense and Treasury, it is Commerce which, acting through its Bureau of Export Administration (BXA), administers and enforces the export control program that most view as especially relevant to commercial exporters. This stems from Commerce’s control over the export of so-called dual use items, i.e., those which have both military and commercial applications.

Most commodities, equipment, and technical data may be exported or reexported under a “general license,” to almost all nations in the world. Where this type of license applies, an exporter generally has no obligation to obtain permission from Commerce before exporting or reexporting the item. However, certain commodities and technical data may not be exported or reexported to particular destinations without the exporter applying for and

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6. Commodities not specifically subject to licensing requirements may be exported to certain countries under a general license without the need to file an application with BXA. See 15 C.F.R. §§ 771 & 779 (1990).
receiving an individual validated license (ILV) from Commerce.\(^7\)

United States law establishes three different types of export controls from which Commerce may choose in determining whether to impose a "validated license" requirement for export of a commodity or technical data, and ultimately whether to deny a request for a validated license: (1) "national security controls," which "restrict the export of goods and technology which would make a significant contribution to the military potential of any other . . . countries which would prove detrimental to the national security of the United States;"\(^8\) (2) "foreign policy controls," which restrict the export of goods and technology "to further significantly the foreign policy of the United States or to fulfill its declared international obligations;"\(^9\) and (3) "short supply controls," which are intended to protect the domestic economy from a drain of goods that are in short supply.\(^10\)

As mentioned above, the three new regulations at issue here were promulgated as "foreign policy controls."\(^11\) In the past, Commerce has imposed such controls to further U.S. interests relating to chemical weapon development, as well as human rights, missile technology proliferation, antiterrorism, and regional stability. It also has imposed such controls against specific countries, such as Libya, Cambodia and South Africa. By way of contrast, Commerce has imposed national security export controls on goods and technology that can be used to improve the military capabilities of certain, primarily Communist, countries.

A validated license requirement at a minimum imposes an administrative burden and a potentially significant time delay on a U.S. firm desiring to export any of the chemicals, or on a foreign firm or agent wanting to import or reexport the chemicals. Note that the applicant for the license should be the person who has the power and responsibility for determining and controlling the sending of the commodity or technical data out of the country.\(^12\) Commerce further requires that the applicant be "subject to the jurisdiction of the United States,"\(^13\) which means that the person must have sufficient commercial or personal contacts with the United States to ensure that a U.S. court would have authority to impose sanctions against the applicant for a violation of U.S. export laws. The U.S. agent of a foreign person can also submit the application, but in that case the agent becomes the

\(^7\) Such a license, which is issued by BXA in response to an application submitted by an exporter or reexporter, authorizes a specific export or reexport of goods or technology from the United States or a third country. BXA also issues "special licenses," which authorize multiple transactions. \(See\ 15\ C.F.R. \S\ 773.\)

\(^8\) 50 U.S.C. app. \S\ 2404 (1989).


\(^11\) \See\ 56 Fed. Reg. 10,756.

\(^12\) 15 C.F.R. \S\ 772.3(b) (1988).

\(^13\) Id.
applicant.14

The licensee is held strictly accountable for the use of the license. Violations of U.S. export control laws may result in a substantial fine and imprisonment, along with the loss of export privileges. To be liable for violation of the export laws, a person or firm need not have been an actual party to a sale of the controlled item. Rather, it is sufficient that the person or firm have participated in the export knowing it to be unauthorized.15

To document intended use and to ensure that foreign customers are aware of their responsibilities with respect to the use and disposition of the items to be exported, the exporter must obtain a Statement by Ultimate Consignee and Purchaser, Form ITA-629P, unless otherwise exempted. In some instances, Commerce may require an exporter to obtain from the importer a Delivery Verification Certificate in which the importer's government confirms that the licensed commodities have been received.16

Commerce generally has 15 working days, extendable to 30, to either approve, or with proper notice deny, a validated license.17 Nevertheless, representatives of the domestic chemical industry have expressed their concern that the new export regulations could result in delays as long as 90 to 120 days, leading customers to go elsewhere.18 They add that even a delay of much shorter duration could cause them to lose a potential sale.19

II. REGULATION OF 50 "PRECURSOR" CHEMICALS

The first new regulation, which although interim nevertheless became effective on March 13, 1991, implements the President's directive which requires that a validated license be issued by Commerce before any chemical on a designated list of 50 may be exported from the United States (or reexported from a third country if originating in the United States) to any nation except for the following industrialized nations which makeup the "Australia Group" Australia, Austria, Belgium, Canada, Denmark, Germany, France, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, The Netherlands, New Zealand, Norway, Portugal, Spain, Switzerland, Turkey and the

14. Id.
19. See Comments of The Dow Chemical Company, Mar. 26, 1991, at 2, ECPI Comments at 2-2 ("If Commerce and State take more than a few days to approve licenses to known companies for the manufacture of personal care items, household detergents, and common pesticides, Dow and the U.S. will lose business, profits and the associated jobs").

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United Kingdom.  
Most of the chemicals on the list are not inherently considered to be chemical or biological warfare agents. Rather, the list of 50 contains many substances known as "precursor" chemicals because they may be used as components in the development of the more deadly agents. These chemicals are thus dual use in nature because they have ordinary industrial uses and capabilities, as well as potential uses for making chemical or biological weapons. For example, thionyl chloride, a precursor to the nerve agent Sarin, is also used in the manufacture of pesticides, dyestuffs and plastics. Another chemical, arsenic trichloride, is commonly used in electronics manufacturing but also is part of lewisite, a mustard agent. The list also includes chemicals widely used for common processes such as electroplating, fertilizer manufacture and production of heart medicines and other drugs. Other substances on the U.S. list are commonly used in processes such as printing and tanning. In addition, while many of the targeted chemicals are complex, some like sodium sulfide and potassium cyanide are relatively simple.

Prior to this new regulation, 39 of the 50 chemicals could be exported without a validated license to any nation in the world except Libya, Vietnam, North Korea, Cambodia, Cuba, Iran, Iraq, Syria, and military and police entities in the Republic of South Africa. Under the new regulation, this list is greatly expanded to include all of Central and South America, Africa, and the Middle East, most of the Asian Continent, and many European nations. Commerce will automatically deny applications for export or re-export to Iraq, Iran, Libya or Syria. Permission to ship these chemicals to other non-Australia Group countries will be considered by Commerce on a case-by-case basis in reviewing applications for a validated license. Commerce has stated that exports and reexports to such other nations

20. See 56 Fed. Reg. 10,756. The list of 50 chemicals is as follows: (1) Ammonium hydrogen fluoride; (2) Arsenic trichloride; (3) Benzilic acid; (4) Chloroethanol; (5) Diethyl ethylyphosphonate; (6) Diethyl methylphosphonite; (7) Diethyl-N, N-dimethylphosphoroamidate; (8) Diethyl phosphite; (9) Diethylethanolamine; (10) N,N-Diisopropyl- beta-aminoethane thiol; (11) N,N-Diisopropyl-beta-aminoethanol; (12) N,N-Diisopropyl-beta-aminoethyl chloride; (13) Diisopropylamine; (14) Dimethyl ethylphosphonate; (15) Dimethyl methylphosphonate; (16) Dimethyl phosphite (dimethyl hydrogen phosphite); (17) Dimethylamine; (18) Dimethylamine hydrochloride; (19) O-Ethyl-2-diisopropylaminoethyl methylphosphonite; (20) Ethylphosphonous dichloride; (21) Ethylphosphonous difluoride; (22) Ethylphosphonyl dichloride; (23) Ethlyphosphonyl difluoride; (24) Hydrogen fluoride; (25) 3-Hydroxy-1-methylpipеридин; (26) Methyl Benzilate; (27) Methylphosphonous dichloride; (28) Methylphosphonous difluoride; (29) Methylphosphonic dichloride; (30) Methylphosphonyl difluoride; (31) Phosphorus Oxchloride; (32) Phosphorus pentachloride; (33) Phosphorus pentasulfide; (34) Phosphorus trichloride; (35) Pinacone; (36) Pinacoloy alcohol; (37) Potassium cyanide; (38) Potassium fluoride; (39) Potassium hydrogen fluoride; (40) Quinuclidinol; (41) 3-Quinuclidinone; (42) Sodium bifluoride; (43) Sodium cyanide; (44) Sodium fluoride; (45) Sodium sulfide; (46) Thiodiglycol; (47) Thionyl chloride; (48) Triethanolamine; (49) Triethyl phosphite; and (50) Trimethyl phosphite. 56 Fed. Reg. 10,756.

21. Lelyveld, supra note 18, at 1A.


23. Id.
generally will be approved unless there is reason to believe the chemicals will be used to produce chemical or biological weapons or otherwise devoted to such improper purposes.\textsuperscript{24}

A factor that has already sparked controversy over the efficacy of the new regulation is that many of the 50 chemicals are readily available from other countries, even those outside the Australia Group. Not surprisingly, several United States companies and industry associations, in comments submitted to Commerce regarding the new regulation, asserted that in order to be effective at curbing the proliferation of chemical and biological weapons, the export controls on chemical precursors must be applied on a multilateral basis.\textsuperscript{25} These industry representatives are concerned that "the costs and delays of the licensing process [will] hurt the competitiveness of U.S. companies vis-a-vis foreign producers and that the unilateral controls [will] prove ineffective due to the widespread foreign availability of the controlled items."\textsuperscript{26} Almost all added their belief that other nations would not join in a multilateral agreement.

At least with respect to the Australia Group, the U.S. firms may be overly pessimistic. In late May 1991, the Australia Group met to consider the new U.S. controls, and as a result of that meeting, it now appears that all of the other Australia Group members that do not already control all 50 precursors will soon do so.\textsuperscript{27} Significantly, however, any Australia Group agreement does not bind non-member chemical-producing nations. A Commerce report sent to Congress on March 7, 1991, acknowledged that 25 of the 39 chemicals are manufactured outside Australia Group countries, while 14 of the chemicals are manufactured in the non-Australia group countries of Argentina, Brazil, Bulgaria, Colombia, Czechoslovakia, India, Israel, Mexico, China, Peru, Poland, Romania, South Africa, Taiwan and the Soviet Union (now the Commonwealth of Unified States). Moreover, any country, such as Iraq, that can make its own matches, fertilizers, cleaners or munitions already has the technology to produce many chemicals on the list.\textsuperscript{28}

\textsuperscript{24.} \textit{Id.}


\textsuperscript{27.} \textit{See 19 Nations Back U.S. Plan For Chemical Arms Curbs; "Australia Group" Agrees to Export Controls, THE WASHINGTON POST, May 31, 1991, at A1, A9. According to the article, U.S. chemical manufacturers "hailed the agreement" because it would help ensure that "there will be harmonized controls on the export of these chemicals." (quoting Michael Walls, attorney for Chemical Manufacturers Association).}

\textsuperscript{28.} One industry representative noted that "much of the ingredients and equipment needed to foster a chemical weapons program are widely available from global sources, including those countries not participating in the Australia Group." Comments of the American Association of Exporters and Importers, Apr. 12, 1991, at 1; \textit{see also} Comments of the Industry Coalition on Technology Transfer (ICOTT), Apr. 8, 1991, at 2 ("many of the chemicals in question are available far beyond the borders of the Australia Group"); Comments of American Electronics Association, Apr. 12, 1991, at 2 ("[I]t appears that we are doomed to repeat the mistakes of the
This may be where the "foreign availability" rule comes into play. Pursuant to this rule, the availability of a chemical precursor from another nation eventually could force Commerce to grant a validated license for the export of a substance. Under U.S. law, the President is authorized to impose or expand foreign policy export controls only if, among other requirements, the controls "are likely to achieve the intended foreign policy purpose, in light of [several] factors, including the availability from other countries of the goods or technology proposed for such controls, and that foreign policy purpose cannot be achieved through negotiations or other alternative means." 

The law further requires that the President, in applying foreign policy export controls, "take all feasible steps to initiate and conclude negotiations with appropriate foreign governments for the purpose of securing the cooperation of such foreign governments in controlling the export to countries and consignees to which the United States export controls apply of any goods or technology comparable to goods or technology controlled under this section." It adds that "[i]f, within 6 months after the date on which [foreign policy export controls] are imposed or expanded . . . the President's efforts under paragraph (1) are not successful in securing the cooperation of foreign governments . . . [Commerce] shall thereafter take into account the foreign availability of the goods or technology subject to the export controls." If Commerce affirmatively determines that a good or technology subject to the export controls is available in sufficient quantity and comparable quality from sources outside the United States to countries subject to the export controls so that denial of an export license would be ineffective in achieving the purposes of the controls, then Commerce must, "during the period of such foreign availability, approve any license application which is required for the export of the good or technology and which meets all requirements for such a license." Moreover, Commerce must "remove the good or technology from the list . . . if the Secretary determines that such action is appropriate."

The rationale behind the "foreign availability" rule is that where such availability exists, U.S. export controls are not effective, and the practical consequence of such controls is to harm U.S. businesses who are prevented from competing for the foreign sale. Some have even suggested that United States national security is actually threatened by such ineffective controls because they have a potentially deleterious effect on U.S. industry. Thus it is understandable that U.S. companies and industry representatives in

past by acting unilaterally and imposing controls on a range of goods and technology widely acknowledged as being available outside the U.S. and Australia, Missile Technology and London Supplier groups. Such unilateral and overreaching action could seriously undermine U.S. efforts to strengthen the current nonproliferation regimes.

comments submitted to Commerce requested that the foreign availability doctrine be applied to the new regulations.32

Several commentators also requested Commerce to establish a new general license or special license that would permit exports to affiliates or licensees of U.S. companies.33 Commerce has responded by promising to issue a separate rule "that creates a special licensing procedure for exports of chemicals . . . to subsidiaries or other affiliates under the effective control of a U.S. exporter."34

III. REGULATION OF EQUIPMENT AND TECHNICAL DATA RELATED TO CHEMICAL AND BIOLOGICAL WEAPONS

The second new regulation published by Commerce, which is also interim but became effective March 13, 1991, is not directly aimed at controlling the export of certain chemicals. Rather, it is intended to prevent further development of chemical and biological weapons by imposing foreign policy controls on exports of certain types of equipment, and of technical data relating to the production of such equipment, that can be used to produce chemical or biological agents that are themselves regulated by either the Commerce Department’s Export Administration Regulations (EAR) or the State Department’s International Traffic in Arms Regulations (ITAR).35

The new regulation imposes export controls on 12 specified types of dual use equipment, and related technical data, which have both legitimate commercial uses and potential capabilities for chemical and biological weapons production. Included on the list of equipment are such innocuous-sounding items as "pumps or valves designed to be vapor leak proof," "thermometers or other chemical processing sensors encased in nickel alloy," and "chemical processing equipment lined with nickel or constructed with Hastelloy, Monel, or another alloy with nickel content."36

32. Commerce has promised to "reevaluate" the controls annually in light of the foreign availability rule. 56 Fed. Reg. 40,496. At least one industry representative already has urged Commerce to conduct a foreign availability analysis for the precursors and equipments subject to the new regulations. Comments of the Chemical Manufacturers Association, Apr. 12, 1991, at 11-12.

33. See, e.g., Comments of the Chemical Manufacturers Association, Apr. 12, 1991, at 13 (criticizing the chemical precursor controls for not providing an exemption or expedited licensing process for exports destined for end-use by subsidiaries, affiliates or joint ventures of U.S. organizations).

34. 56 Fed. Reg. 40,495.


36. The complete list of controlled equipment is as follows: (1) Chemical processing equipment lined with nickel or constructed of Hastelloy, Monel, or another alloy with nickel content; (2) Pumps or valves designed to be vapor leak proof; (3) Thermometers or other chemical process sensors encased in nickel alloy having a nickel content greater than 40%; (4) Filling equipment enclosed in a glove box or similar environmental barrier, or incorporating a nickel-lined or hastelloy nozzle; (5) Specially designed incinerators for chemical precursors listed in the previously discussed new regulation, chemical warfare agents, or organophosphorus compounds; (6) Toxic gas monitoring systems; (7) Monitoring systems for the detection of
The scope of this regulation is unprecedented. Never before have export licenses been required for such dual use equipment. Domestic companies and industry organizations asserted in comments filed with Commerce that the equipment may be used for such non-military uses as the manufacture of peanut butter, salad dressing and candy. One industry representative contended that the regulation applies to literally all reactors, storage tanks, heat exchangers, distillation columns and degassing equipment now in common use in the commercial chemical industry, and that some of the equipment—notably heat exchangers and degassing equipment—have important civil applications in food production and medical care. Another industry group asserted that the term "chemical processing equipment" could be interpreted to include "virtually any equipment associated with chemical production," and that the new regulation "[c]ontrolling 'pumps or valves' designed to be vapor proof is overbroad because virtually all civilian end-use valves today are designed to meet that criterion."37

However, the geographic coverage of this regulation is not as broad as the one imposing controls on the chemical precursors. Rather than requiring a validated license for export to all but the nations within the Australia Group, this new regulation requires a validated license for export of such equipment and technical data listed to Libya, North Korea, Vietnam, Cambodia and Cuba, and to all countries designated as part of either the Middle East or Southwest Asia.38 For purposes of the regulation, the Middle East region includes Bahrain, Egypt, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen.39 Southwest Asia, in turn, includes Afghanistan, India, Iran and Pakistan.40

Commerce has stated that licenses for exports and reexports of such equipment and technical data will be denied if Commerce believes that such equipment or technical data would make a material contribution to the design, development, production, stockpiling or use of chemical or biological weapons.41 Factors to be considered with respect to individual applications include:

1. The specific nature of the end-use;

chemical compounds having anticholinesterase activity; (8) Detection or assay systems that are capable of detecting concentrations of less than one part per million in air of biological agents or toxins controlled under the EAR; (9) Biohazard containment equipment; (10) Equipment for the microencapsulation of live microorganisms; (11) Intermediate chemicals used in the production of chemical warfare agents; and (12) Complex media (specifically brain/heart infusion media) for the growth of microorganisms in Class 3 or Class 4, in quantities greater than 100 kilograms. See 56 Fed. Reg. 10,760.

38. 56 Fed. Reg. 10,760.
40. Id.
41. 56 Fed. Reg. 10,760.
2. The significance of the export in terms of its contribution to the design, development, production, stockpiling, or use of chemical or biological weapons;

3. The non-proliferation credentials of the importing country; and

4. The types of assurances or guarantees against the design, development, production, stockpiling, or use of chemical or biological weapons that are given in a particular case.\textsuperscript{42}

In comments filed with Commerce, a U.S. industry association asserted that the regulation on equipment and technical data would “put U.S. food processing machinery and equipment manufacturers at a significant competitive disadvantage,” which would “reduce the exports of U.S. manufacturers of food processing equipment…”\textsuperscript{43} The commentator complained that “[w]ith significant foreign availability of the subject machinery and equipment, these export controls . . . will not stop the ability of suspect nations to develop chemical and biological weapons,” but would nonetheless stop the export from the United States “of some food processing machinery which is totally unrelated to the production of chemical and biological weapons.”\textsuperscript{44} This is because even if a license ultimately is granted, “[t]he extended period for license processing will push the manufacturer’s delivery date beyond that required in its contract and thereby force it to incur substantial financial penalties.”\textsuperscript{45} The commentator added that “[c]ustomers in foreign countries will not accept the delays and other burdens imposed by these export controls because alternative sources of supply are available from many foreign countries.”\textsuperscript{46} The organization further predicted that “[i]n selling their products to foreign customers, foreign manufacturers will emphasize the delays and uncertainties created by the Interim Rule that would burden any contract with a U.S. manufacturer.”\textsuperscript{47}

Several other representatives from the U.S. pump and valve manufacturing industry objected to the inclusion on the list of “pumps or valves designed to be vapor leak proof.” A commentator from the food processor manufacturing industry contended that the regulation is so broad that it applies to pumps used by the food processing industry “in the process of tomatoes, beer, wine, peanut butter, candy, salad dressing, milk, bakery

\textsuperscript{42} 15 C.F.R. § 776(b)(2).
\textsuperscript{43} Comments of the Food Processing Machinery and Supplies Association (FPM&SA), Apr. 9, 1991, at 1.
\textsuperscript{44} Id. at 2.
\textsuperscript{45} Id. at 2.
\textsuperscript{46} Id. at 3.
\textsuperscript{47} Id. at 2-3.
products, and a wide variety of other foods." A manufacturer of valves for use in petrochemical, chemical and fertilizer plants complained that it will now face greater competition from European rivals not subject to the delay from the validated license requirement.

Many commentators also emphasized that chemical and biological weapons could be manufactured without the equipment listed in the regulation. As one commentator stated, "restriction of equipment made from optimal materials of construction can only prevent the building of long-life CBW [chemical and biological weapon] manufacturing facilities." It added that "[m]any commonly available materials, such as glass, painted carbon steel, and plastic, will last long enough to produce sufficient" chemical and biological weapons to be effective.

As with the chemical precursor regulation, several commentators complained that the controls would be ineffective because they were not part of a multilateral agreement. The commentators further noted that the chances for such an agreement were very slim. This prediction has so far proven correct, in that no other Australia Group member has yet adopted the U.S. approach. One commentator observed that the Australia Group rejected similar equipment controls merely 18 months before the new regulations were issued.

IV. REGULATION OF EXPORTS DESTINED TO AID DEVELOPMENT OF CHEMICAL AND BIOLOGICAL WEAPONS AND MISSILES

The third new regulation is in at least one respect much broader in scope than the first two. This regulation—which initially was issued as a proposed regulation, but was subsequently reissued in amended form as an interim regulation, effective August 15, 1991—applies to exports of all commodities, equipment, technical data, software and personal services for which a validated license is otherwise required, unless the only reason for requiring a validated license is because the item is in short supply in the United States. The regulation authorizes Commerce to deny a validated license application if the export could be destined for the design, development, production, or use of missiles or chemical or biological weapons, or for a facility engaged

48. Id. at 6.
49. Id.
51. Id.
52. One commentator specifically requested that "[b]ecause the equipment on the interim control list is widely available throughout the world, . . . an exemption [should] be allowed where foreign availability has been established." Comments of FPM&SA, supra note 43, at 3.
in such activities.\footnote{Id.}

The regulation also imposes foreign policy controls on exports to specified destinations when the exporter either "knows" or has been informed by the Department of Commerce's Office of Export Licensing (OEL), that the commodities, technical data, or software will be used in the design, development, production or use of missiles or chemical or biological weapons, or are destined for a facility engaged in such activities. Further, a U.S. person may not, without a validated license, perform any contract, service, or employment knowing that it assists such activities. The prohibition extends to support of any such transactions, through financing, freight forwarding, or other comparable activities. Notably, the term "U.S. person" includes foreign branches of companies organized in the United States. The proposed regulation is also specifically intended to prohibit U.S. persons from participating in the construction of plants to produce chemical weapon precursors in certain countries.

Thus, under the new regulation, Commerce may inform an exporter at any time that a validated license is required for a specific export or reexport transaction or for exports or reexports to a specific end-user because there is an unacceptable risk that such shipments will be used in sensitive nuclear activities, in the design, development, production, stockpiling, or use of chemical or biological weapons, or in the design, development, production or use of missiles.\footnote{See 56 Fed. Reg. 40,494-40,498; 15 C.F.R. §§ 778.7, 778.8 (1988).} An exporter may be individually informed by Commerce, or Commerce can publish a notice in the Federal Register.\footnote{56 Fed. Reg. 40,494.} When individual notice is provided orally, it is to be followed by a written notice within two working days signed by the Commerce's Deputy Assistant Secretary for Export Administration.\footnote{Id.} However, the absence of any such notification does not excuse the exporter from compliance with the validated license requirements imposed by the regulation.\footnote{Id.}

To summarize, the proposed regulation would impose new licensing requirements whenever:

1. An export of a whole chemical plant that manufactures any of the 50 chemical precursors listed in the first new regulation, or assistance in designing such a plant, is destined to any country outside the Australia Group;
2. A U.S. person knows that a proposed export or other assistance is destined for chemical or biological weapon or missile activities in listed regions, countries or projects; or
3. A U.S. person is informed by the U.S. Government that a pro-

\begin{itemize}
  \item\footnote{Id.}
  \item\footnote{56 Fed. Reg. 40,494.}
  \item\footnote{Id.}
  \item\footnote{Id.}
\end{itemize}
posed export or other assistance is destined for chemical or biological weapon or missile activities anywhere in the world.

Unlike the earlier proposed regulation, the interim regulation does not contain a definition of the term know. Those in need of a definition should consult other government regulations and case law, and should use their common sense. Businesses should also be on notice that at least some Commerce officials have indicated their belief that the interim regulation imposes an affirmative duty on exporters to inquire as to the end uses of their overseas shipments.

One commentator suggested that the imposition of a validated license requirement on exporters who are informed by Commerce that a validated license is required for exports to identified consignees was prompted by Commerce’s desire “to control exports to particular end users without either (1) warning them that the U.S. Government is aware of their misconduct or (2) compromising intelligence sources and methods that may have contributed to the government’s knowledge of such misconduct.”61 This commentator was opposed to “a regime under which the Commerce Department informs some, but not all exporters selling to a particular end user that such sales are prohibited.”62 It asserted that:

Aside from the obvious inequity of placing restrictions on some exporters that are not imposed on others, the rationale of this approach is wanting. In an open society such as ours, a government notification of this type will not long remain secret. Indeed, it will be in the interest of the recipient of such a confidence to shout the information from the rooftops to ensure that its competitors cannot take advantage of its unilateral knowledge. The government must accept that, as one cannot be a little bit pregnant, one cannot disclose information about questionable end users to some exporters without having that information become general public knowledge in short order.63

A metalworking electronics corporation complained in its comments to the proposed regulation that incorporation of U.S. components would restrict the end uses of the finished product and that overseas sales agents would have to devote staff to review periodic changes in denied users and inform their worldwide sales networks of these changes.64 The commentator further stated that “[g]iven that producer countries of high technology commodities, like Taiwan, will not have these restrictions, and that countries

63. Id. at 2, quoting Comments of ICOTT, Apr. 8, 1991.
like Germany may not fully implement them, there can be no doubt that a serious erosion in foreign markets for U.S. goods will develop.”

Commerce also was criticized by an industry association for failing to publish a list of projects simultaneously with the new controls on missile exports. The association asserted that “[t]he absence of a list unfairly requires exporters to second guess BXA’s designation of projects which are of concern for proliferation reasons,” and complained that companies wishing to comply could not “make the necessary improvements to their internal compliance programs until such list is made public.”

V. THE NEW REGULATIONS AND “CONTRACT SANCTITY”

United States law generally requires Commerce to permit exporters to fulfill contracts to which they have entered into prior to the establishment of new foreign policy controls, unless the President determines that there has been a breach of the peace. This is referred to as “contract sanctity.” While the first two new interim regulations (concerning chemical precursors and equipment) have provisions guaranteeing contract sanctity, Commerce has indicated that because of the serious threat presented by proliferation of chemical and biological weapons, it is seriously contemplating the elimination of the contract sanctity provisions in the final regulations.

For the third regulation (concerning commodities, equipment, technical data, software and personal services for which a validated license is otherwise required) Commerce stated that “contract sanctity as a principle is maintained,” and listed contract sanctity dates for various countries, but warned that while “cases may arise in which contract sanctity is inappropriate in light of the serious concerns raised by missiles and chemical and biological weapons.” Commerce added that “[a]ccordingly, there will not be a presumption of approval for license applications involving pre-existing contracts; [rather] the existence of a pre-existing contract will be treated as a factor to be considered in reviewing license applications.”

Industry representatives are very concerned about the potential lack of contract sanctity. They fear that Commerce’s approach to contract sanctity “will require that all shipments under preexisting contracts be submitted to Commerce for consideration on a case by case basis,” and that “[g]iven the emotional and political controversy that surround the proliferation area,” it

65. Id.
67. AIA Comments, supra note 66, at 1.
68. See 56 Fed. Reg. 10,756, 10,760.
69. Id.
70. 56 Fed. Reg. 40,496.
71. Id.
is doubtful "that the Department will be prepared to go on record as approving such exports." 72

VI. CONCLUSION

As impossible as it would be to name a U.S. company or industry representative that does not publicly support the President’s policy of preventing the totalitarian dictators and terrorists of the world from acquiring or further developing the capacity to manufacture chemical or biological weapons, it would be equally difficult to find such an entity that does not consider Commerce’s three new regulations implementing this policy to be, in effect, a net to catch the wind because of the lack of a multilateral agreement with nations whose companies—in competition with U.S. firms—produce and export the same types of chemicals, equipment and related data covered by the new regulations.

The burden imposed upon U.S. industry by the new regulations cannot be overestimated. Domestic companies must now face a validated license requirement which many of their foreign competitors do not. The fear of U.S. industry is that the uncertainty as to whether a license will be granted, and the delay caused by the licensing process, will cause foreign purchasers to look to foreign competitors for supply of the chemical precursors and equipment that are subject to the regulations. Nor is the burden limited to companies which manufacture or sell chemicals. As clearly demonstrated by the number and diversity of companies and organizations submitting comments with Commerce, the new regulations apply to a wide range of industry sectors.

Finally, while only U.S. companies and organizations submitted comments to Commerce regarding the new regulations, it is clear that some foreign producers of the chemical precursors and equipment covered by the new regulations also will be affected. Commodities and technical data which originated in the United States, or in some instances merely were stored in the United States, are subject to the laws—regardless of the owner’s nationality—whenever they are exported from the U.S. or reexported from any foreign country to another foreign country. Accordingly, a foreign company’s export or reexport of an item covered by the regulations will be subject to the validated license requirement if either a completed item or a non de minimis component thereof was produced or warehoused in the U.S.

72. Comments of ICOTT, Sept. 16, 1991, at 1; see also Comments of Anilam Electronics Corp., Apr. 1, 1991, at 2. ("Because the sanctity of contracts with U.S. producers will no longer be honored, American products will be much less desirable. At any time, [the Office of Export Licensing] could inform an exporter personally or by publication in the Federal Register that shipments must be halted. What foreign manufacturer would want to purchase U.S. components when his supplies could be cut off at any time?") EPCI Comments 5-2; ("[e]limination of the contract sanctity provision could result in the financial ruin of small companies and substantially undermine the financial viability of medium sized companies") Comments of FPM&SA, supra note 43, at 3.