
2012 REPORT ON FOREIGN POLICY-BASED EXPORT CONTROLS

U.S. Department of Commerce Bureau of Industry and Security

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CHAPTER 1

Introduction

Export controls maintained for foreign policy purposes require annual extension according to the provisions of Section 6 of the Export Administration Act of 1979, as amended¹ (the EAA). Section 6(f) of the EAA requires the President to submit a report to Congress to extend the controls. Authority to submit the report has been delegated to the Secretary of Commerce.² Section 6(f) of the EAA requires the report to specify the determinations or considerations of the Secretary (as delegated by the President) with respect to the criteria set forth in Section 6(b) of the EAA established for imposing, extending, or expanding foreign policy controls. This report complies with all of the requirements set out in the EAA for extending, amending, or imposing foreign policy controls.

The Department of Commerce is acting under the authority conferred by Executive Order 13222 of August 17, 2001 (Executive Order), as extended most recently by the Notice of August 12, 2011 (76 FR 50661 (August 16, 2011)). In that Executive Order, the President, by reason of the expiration of the EAA, invoked his authority, including authority under the International Emergency Economic Powers Act (IEEPA), to continue in effect the system of controls that had been maintained under the EAA. Under a policy of conforming actions under the Executive Order to those under the EAA, the Department of Commerce, insofar as appropriate, is following the provisions of Section 6 of the EAA with regard to extending foreign policy controls.

With this report, all foreign policy export controls discussed herein are hereby extended for the period from January 21, 2012, to January 20, 2013. The Bureau of Industry and Security (BIS) of the Department of Commerce is taking this action pursuant to the recommendation of the Secretary of State. As further authorized by the EAA, foreign policy export controls remain in effect for replacement parts and for parts contained in goods subject to such controls. The controls administered in accordance with procedures established pursuant to Section 309(c) of the Nuclear Nonproliferation Act of 1978 similarly remain in effect.

Each Chapter of this report describes a particular category of foreign policy controls and delineates modifications that have taken place over the past year. Although this report covers the 2011 calendar year, most of the statistical data presented in the report are based on fiscal year 2011 export licensing statistics, unless otherwise noted. BIS generates this data from the computer system it uses to process and track export license activity. Due to the tabulating procedures used by the system in accounting for occasional license applications that list more

¹ 50 U.S.C. app. §§ 2401-2420 (2000).

² Executive Order 12002 (July 7, 1977) (as amended).

than one country or destination, the system has certain limitations as a means of gathering data. In addition, BIS bases the data in this report on values contained in issued export licenses. Such values may not represent the values of actual shipments made against those licenses, because in some cases an exporter may ship only a portion of the value of an approved license or may not ship at all.

Certain goods, technology, and software described in this report also may require a license for national security purposes for export to certain destinations in accordance with Section 5 of the EAA.

Part I: Highlights in the 2011 Report

Crime Control/Human Rights

On April 29, 2011, the Under Secretary of Commerce for Industry and Security, pursuant to the authority delegated to him under section 6(n)(2) of the EAA, designated Argentina, Austria, Finland, Ireland, South Korea, Sweden, and Switzerland as eligible destinations for export and reexport of certain items controlled for crime control (CC), without a license under License Exception Strategic Trade Authorization. Eligible items do not include equipment for the execution of human beings, law enforcement restraint devices, specially designed implements of torture, discharge type arms (stun guns, shock batons, etc.), or the technology to make law enforcement restraint devices and discharge type arms (ECCNs 0A981, 0A982, 0A983, 0A985 or 0E982).

Regional Stability

The Export Control Reform (ECR) initiative that was begun during the reporting period proposes a new regulatory construct for the transfer of items on the United States Munitions List (USML) to the Commerce Control List (CCL) that, in accordance with section 38(f) of the Arms Export Control Act (AECA)(22 U.S.C. 2778(f)(1)), the President determines no longer warrant control under the AECA. These items would then be controlled under the EAR once the congressional notification requirements of section 38(f) and corresponding amendments to the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120-130) and its USML and the EAR and its CCL are completed. On July 15, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 41958) that would implement these structural changes to the EAR for the items that are moved from the United States Munitions List (USML) to the Commerce Control List (CCL) and which will be subject to Department of Commerce licensing authority. Items under new ECCNs will be subject to control for Regional Stability (RS) and Anti-Terrorism (AT) reasons in addition to other control reasons that will be specified in subsequent rules.

In addition, the following is a list of proposed rules published by BIS that propose the transfer certain categories of items from the USML to the CCL:

On November 7, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 68675) entitled “Revisions to the Export Administration Regulations (EAR): Control of Aircraft and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL and control them for Regional Security (RS) and Anti-Terrorism (AT) reasons in addition to National Security (NS) reasons. Some items would also be controlled for Missile Technology (MT) reasons. NS controls are not the subject of this report. Please refer to Chapter 4 for a description of AT controls and Chapter 8 for a description of MT controls.

On December 6, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 76072) entitled “Revisions to the Export Administration Regulations (EAR): Control of Gas Turbine Engines and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

On December 6, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 76085) entitled “Revisions to the Export Administration Regulations (EAR): Control of Military Vehicles and Related Items that the President Determines No Longer Warrant Control on the United States Munitions List.” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

On December 23, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 80282) entitled “Revisions to the Export Administration Regulations (EAR): Control of Vessels of War and Related Articles the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

On December 23, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 80291) entitled “Revisions to the Export Administration Regulations (EAR): Controls Applicable to Submersible Vessels, Oceanographic Equipment and Related Articles that the President Determines No Longer Warrant Control under the United States Munitions List.” This rule would add a number of items formerly controlled on the USML to the CCL.

These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

In addition to the ECR related proposed rules listed above, the Department of Commerce published, a proposed rule in the *Federal Register* (77 FR 1017) on January 9, 2012 entitled “Export and Reexport License Requirements for Certain Microwave and Millimeter Wave Electronic Components.” This rule imposes regional stability export controls on certain high electron mobility transistors and monolithic microwave integrated circuits.

Anti-Terrorism Controls

On July 13, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 41046) amending the EAR consistent with the U.S. Government’s July 9, 2011 formal recognition of the Republic of South Sudan (“South Sudan”) as a new country. BIS added South Sudan to the Commerce Country Chart and included it in Country Group B, which rendered the destination eligible for certain export and reexport License Exceptions. The AT controls that continue to apply to the Republic of the Sudan (“Sudan”) under the EAR do not apply to South Sudan. A license is required for the export or reexport to South Sudan of items subject to the EAR that are controlled unilaterally for Regional Stability and Crime Control reasons, and items controlled by the multilateral export control regimes (Australia Group, Wassenaar Arrangement, Chemical/Biological Weapons Conventions, Nuclear Suppliers Group, and Missile Technology Control Regime).

Embargoes, Sanctions, and Other Special Controls

On December 12, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 77115) amending the EAR to move the substantive provisions of the comprehensive sanctions against Syria from General Order No. 2 in Supplement No. 1 to Part 736 to a revised Section 746.9. Part 746 of the EAR addresses comprehensive sanctions and other special controls and is an appropriate place to include these Syria sanctions provisions. This move will enhance public awareness and understanding of comprehensive U.S. sanctions against Syria under the EAR. Existing licensing requirements and policies remain unchanged.

Toxic Chemicals, Chemical Precursors, and Associated Equipment, Technology, and Software

On April 20, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 22017) to implement the understandings reached at the June 2010 plenary meeting of the Australia Group (AG). This final rule amended Export Control Classification Number (ECCN) 2B350 (Chemical manufacturing facilities and equipment) on the CCL to clarify the meaning of

the terms “fluoropolymers” and “ferrosilicon” in connection with the types of materials from which certain chemical manufacturing equipment is made.

Biological Agents and Associated Equipment and Technology

On April 20, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 22017) amending the EAR to implement the understandings reached at the June 2010 plenary meeting of the Australia Group (AG). Specifically, this rule revised the listing for “*Chlamydia psittaci*” in ECCN 1C351.c.7 by updating the name of the bacterium to read “*Chlamydophila psittaci* (formerly known as *Chlamydia psittaci*).” This rule also revised the listing for the “Lyssa virus” in ECCN 1C352.a.8 by adding a parenthetical phrase to indicate that the virus is also known as “Rabies.”

On September 12, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 56099) amending the EAR to implement an AG decision regarding the reorganization and clarification of controls for biological agents. Specifically, this rule amended ECCN 1C351.a to remove the “South American haemorrhagic fever” and “Pulmonary and renal syndrome-hemorrhagic fever viruses” and replaced them with ten viral causative agents for the fevers. This rule also alphabetized and renumbered the list of viruses in ECCN 1C351.a to conform with the format in the AG List of Biological Agents. Consistent with this AG change, this rule alphabetized and renumbered the list of bacteria and “toxins” in ECCN 1C351.c and .d to assist exporters to more easily identify these bacteria and “toxins.” In addition, this rule makes conforming changes in Section 740.20, Section 742.18, and ECCN 1C991 related to the items that were alphabetized and renumbered in ECCN 1C351. Finally, this rule amended Section 740.20(b)(2)(vi), which describes certain limitations on the use of License Exception STA, to add several toxins that were inadvertently omitted by the License Exception STA rule that BIS published on June 16, 2011 (76 FR 35276).

Missile Technology Controls

The annual plenary for the Missile Technology Control Regime (MTCR) was held in April 2011 in Buenos Aires, Argentina. At the Plenary, the MTCR partners discussed the direct relevance of UN Security Council Resolutions (UNSCRs) 1874 (North Korea) and 1929 (Iran) to MTCR export controls. The MTCR partners discussed the importance for all States to take all necessary steps at a national level to fully and effectively implement the missile-relevant provisions of these resolutions. The growing interest by many states in cooperating with or possibly adhering to the MTCR was discussed, and the Plenary supported the Chair’s ongoing outreach efforts to non-members.

The MTCR also held a Technical Experts Meeting (TEM) in conjunction with the Plenary to discuss proposed changes to the MTCR control list. Changes adopted at the plenary included adding controls for the production facilities specially designed for rocket systems and unmanned

aerial vehicle systems capable of a range equal to or greater than 300 km; and clarifying the coverage of control in the General Technology Note. No changes in the EAR resulted from this update to the MTCR Annex.

The MTCR held an intercessional Technical Experts Meeting (TEM) in Paris on November 14-18, 2011, to discuss additional changes to the MTCR control list.

The annual Reinforced Points of Contact (RPOC) meeting for the MTCR was held on December 6-7, 2011 in Paris.

Entity List

On January 25, 2011, BIS published a final rule in the *Federal Register* (76 FR 4228) that implemented changes to the Entity List based on the November 2010 bilateral understanding between the United States and India. Under the agreement, the President and Indian Prime Minister Singh agreed to take mutual steps related to export controls, which included the removal of India's defense and space-related entities from the Entity List. In the rule, nine Indian entities were removed from the Entity List.

On April 18, 2011, BIS published a final rule in the *Federal Register* (76 FR 21628) that implemented changes to the Entity List based on the End-user Review Committee's (ERC) annual review of listed entities in Iran and the United Arab Emirates (UAE). The rule removed one person, located in the UAE, and modified four entries by clarifying names, adding addresses, and/or adding aliases for one Iranian person and three UAE persons. This rule also removed one person located in the United Kingdom (UK) from the Entity List based on that person's request for removal, and a review of information provided in the removal request by the ERC. In addition, the rule clarified an existing entry for a person located in the People's Republic of China (PRC) to accurately reflect the relationship between two aliases listed under the entry. Lastly, the rule updated the Code of Federal Regulations' (CFR) legal authority citations for parts 730 and 744 of the EAR.

On May 24, 2011, BIS published a final rule in the *Federal Register* (76 FR 29998) that implemented changes to the Entity List based on a policy decision in recognition of the bilateral partnership between the United States and Russia. The rule implemented a decision by the Departments represented on the ERC to remove the listing of the Federal Atomic Power of Russia (Rosatom), now known as the Russian State Corporation of Atomic Energy (Rosatom), from the Entity List. The ERC also modified two entries to clarify that two Rosatom components -- the All-Russian Scientific Research Institute of Technical Physics (VNIITF) and the All-Russian Scientific Research Institute of Experimental Physics (VNIIEF) -- remained on the Entity List.

On June 28, 2011, BIS published a final rule in the *Federal Register* (76 FR 37632) that added eight persons to the Entity List under Section 744.11 of the EAR. The ERC added these persons based on evidence that they engaged in actions that could enhance the military capability of Iran, a country designated by the U.S. Secretary of State as having repeatedly provided support for acts of international terrorism, and because their overall conduct posed a risk of ongoing EAR violations. For all eight persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in France (three entries), Iran (three entries), and the UAE (two entries).

On July 25, 2011, BIS published a final rule in the *Federal Register* (76 FR 44259) that added six persons to the Entity List under Section 744.11 of the EAR. The ERC added these persons based on evidence that they engaged in actions that could enhance the military capability of Iran, and because their overall conduct posed a risk of ongoing EAR violations. The ERC determined that six persons purchased electronic components from U.S. firms and then resold the components to companies in Iran without the required U.S. export license. These same components were later found in Iraq in unexploded improvised explosive devices. For all six entities, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Hong Kong (two entries) and Lebanon (four entries).

On August 15, 2011, BIS published a final rule in the *Federal Register* (76 FR 50407) that added fifteen persons under twenty entries to the Entity List, based on Section 744.11 of the EAR.³ The ERC added these fifteen persons to the Entity List based on evidence that they were involved in activities contrary to U.S. national security or foreign policy interests, specifically the leasing, transfer, and operation of commercial aircraft subject to the EAR to Syria and Iran without the requisite licenses. The ERC also determined that these persons' activities violated the license requirements for exports and reexports to Syria pursuant to General Order No. 2 of Supplement No. 1 to part 736 of the EAR and violated the sanctions against Iran pursuant to the Iran Transactions Regulations (31 CFR Part 560). Both Syria and Iran have been designated by the Secretary of State as countries that have repeatedly provided support for acts of international terrorism. For all fifteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Cyprus (one entry), Greece (three entries), Iran (four entries), Syria (two entries), Ukraine (five entries), and the United Kingdom (five entries).

The August 15, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Syria. The rule modified seven entries by clarifying names, adding addresses, and/or adding aliases to the entries of seven Syrian persons.

³ The five additional entries account for the five alternate addresses of persons in multiple destinations.

Lastly, the rule modified an existing entry located in the PRC in order to clarify the relationship of a listed alias to the existing entry and to provide additional information on the alias.

On October 12, 2011, BIS published a final rule in the *Federal Register* (76 FR 63184) that added two persons to the Entity List based on evidence that they were involved in activities contrary to U.S. national security and foreign policy interests (Section 744.11 of the EAR). The ERC added the two persons based on evidence that they were complicit in violations of the EAR and Hong Kong export control requirements for shipments to the PRC. For both entities, the ERC specified a license requirement for all items subject to the EAR and established a license review policy of a presumption of denial. The persons added are both located in Hong Kong.

The October 12, 2011 rule also removed one Hong Kong person from the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Hong Kong. The rule also removed three persons, located in Hong Kong and New Zealand, from the Entity List. These persons were removed as a result of their submitted requests for removal submitted and a review of information provided by the ERC.

On October 31, 2011, BIS published a final rule in the *Federal Register* (76 FR 67059) that added fifteen persons under twenty-five entries to the Entity List, based on section 744.11 of the EAR.⁴ The ERC added eight of the persons based on evidence that they engaged in actions that could enhance the military capability of Iran, a country designated by the U.S. Secretary of State as having repeatedly provided support for acts of international terrorism, and of militant insurgents operating in Iraq against the U.S. military, and because their overall conduct posed a risk of ongoing EAR violations. Specifically, these persons participated in a complex and layered network to procure items subject to the EAR and/or the International Traffic in Arms Regulations (ITAR) for shipment to Iran and/or the PRC without the requisite licenses. The remaining seven persons were added based on evidence that they engaged in actions facilitating the activities of the procurement network described above. For all fifteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Hong Kong (seven entries), Iran (three entries), the PRC (five entries), and Singapore (ten entries).

On November 21, 2011, BIS published a final rule in the *Federal Register* (76 FR 71867) that added fourteen persons under twenty-one entries to the Entity List, based on evidence that they were involved in activities contrary to U.S. national security and foreign policy interests (section 744.11 of the EAR).⁵ The ERC added thirteen persons in Afghanistan and Pakistan based on evidence that they provided material support to persons engaged against U.S. and Coalition

⁴ The ten additional entries account for the ten alternate addresses of persons in multiple destinations.

⁵ The seven additional entries account for the seven alternate addresses of persons in multiple destinations.

forces in Afghanistan. In addition, the ERC added one person in the PRC (with an alternate address in Hong Kong) based on evidence that it sought to obtain items subject to the EAR without the required authorizations. For all fourteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Afghanistan (eleven entries), Hong Kong (one entry), Pakistan (eight entries), and the PRC (one entry).

The November 21, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Canada. The rule modified two entries by adding addresses to the entries of two Canadian persons.

On December 16, 2011, BIS published a final rule in the Federal Register (76 FR 78146) that added two persons to the Entity List, based on section 744.11 of the EAR. The ERC added these persons based on evidence that they were involved in the unauthorized transfer of U.S.-origin internet filtering equipment to Syria without the licenses required under the EAR, for possible use by the Syrian Telecommunications Establishment to aid in Syria's bloody crackdown on pro-democracy activists. For both persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in the United Arab Emirates.

The December 16, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Malaysia, Singapore, and Taiwan. The rule removed four persons (two located in Singapore and two located in Taiwan), and modified one entry by adding an address to the entry of one Malaysian person.

Part II: Format of Analysis Used in Chapters 2-13 of this Report

Chapters 2-13 of this report describe the various export control programs maintained by the Department of Commerce for foreign policy reasons. Each of these programs is extended for another year. The analysis required for such an extension is provided in each Chapter in the format described below.

Export Control Program Description and Licensing Policy

This section defines the export controls maintained for a particular foreign policy purpose that were imposed or extended for the year 2011. Each of the following Chapters describes the licensing requirements and policy applicable to a particular control.

Analysis of Controls as Required by Section 6(f) of the Act

Section 6(f)(2) of the EAA requires that the Secretary of Commerce describe the purpose of the controls and consider or determine whether to impose, expand, or extend foreign policy controls based on specified criteria, including consultation efforts, economic impact, alternative means, and foreign availability. For each control program, the Department of Commerce's conclusions are based on the following required criteria:

A. The Purpose of the Controls

This section provides the foreign policy purpose and rationale for each particular control.

B. Considerations and/or Determinations of the Secretary of Commerce

This section describes the Secretary's determinations or considerations with respect to the following criteria:

- 1. *Probability of Achieving the Intended Foreign Policy Purpose.*** Whether such controls are likely to achieve the intended foreign policy purpose in light of other factors, including the availability from other countries of the goods or technology subject to control, and whether the foreign policy purpose can be achieved through negotiations or other alternative means.
- 2. *Compatibility with Foreign Policy Objectives.*** Whether the controls are compatible with the foreign policy objectives of the United States and with overall U.S. policy toward the country or the proscribed end use subject to the controls.
- 3. *Reaction of Other Countries.*** Whether the reaction of other countries to the extension of such export controls by the United States is likely to render the controls ineffective in achieving the intended foreign policy purpose or to be counterproductive to other U.S. foreign policy interests.
- 4. *Economic Impact on United States Industry.*** Whether the effect of the controls on the export performance of the United States, its competitive position in the international economy, the international reputation of the United States as a reliable supplier of goods and technology, or the economic well-being of individual U.S. companies exceeds the benefit to U.S. foreign policy objectives.⁶

⁶ Limitations exist when assessing the economic impact of certain controls because of the unavailability of data or because of the influence of other factors, e.g., currency values, foreign economic activity, or foreign political regimes, which may restrict imports of U.S. products more stringently than the United States restricts exports.

5. ***Effective Enforcement of Controls.*** Whether the United States has the ability to enforce the controls. Some enforcement issues are common to all foreign policy controls.⁷ Other enforcement issues are associated with only one or a few controls. Each control has been assessed to determine if it has presented, or is expected to present, an uncharacteristic enforcement problem.

C. Consultation with Industry

This section discusses the results of consultations with industry leading to the extension or imposition of controls. In a September 1, 2011, *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's seven Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 3, 2011, and two comments were received. A detailed review of public comments can be found in Appendix I.

D. Consultation with Other Countries

This section reflects consultations on the controls with countries that cooperate with the United States on multilateral controls and with other countries as appropriate.

E. Alternative Means

This section specifies the nature and results of any alternative means attempted to accomplish the foreign policy purpose, or the reasons for extending the controls without attempting any such alternative means.

F. Foreign Availability

This section considers the availability from other countries of goods or technology comparable to those subject to the proposed export control. It also describes the nature and results of the efforts made pursuant to Section 6(h) of the EAA to secure the cooperation of foreign governments in controlling the foreign availability of such comparable goods or technology. In accordance with the EAA, foreign availability considerations do not apply to export controls in effect prior to

⁷ When the United States implements controls without the imposition of corresponding restrictions by other countries, it can be difficult to prevent reexports from third countries to the target country, to secure third-country cooperation in enforcement efforts, and to detect violations abroad and initiate proper enforcement action.

June 12, 1985, to export controls maintained for human rights and Anti-Terrorism reasons, or to export controls in support of the international obligations of the United States.

CHAPTER 2

Crime Control/Human Rights (Sections 742.7, 742.11, 742.17)⁸

Export Control Program Description and Licensing Policy

As required by Section 6(n) of the Export Administration Act of 1979, as amended (EAA), the United States controls the exports of crime control and detection items because of human rights concerns in various countries. As set forth in the EAR, the U.S. Government requires a license to export most crime control and detection instruments, equipment, related technology, and software to all destinations, except Australia, Japan, New Zealand, and members of the North Atlantic Treaty Organization (NATO). A license is required to export certain crime control items, including restraint type devices (such as handcuffs) and discharge type arms (such as stun guns), to all destinations except Canada. Specially designed implements of torture and thumbscrews, which are included in the crime control category, require a license for export to all destinations. In addition, the U.S. Government maintains concurrent export license requirements for certain crime control items in furtherance of the Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials.

Summary of 2011 Changes

On April 29, 2011, the Under Secretary of Commerce for Industry and Security, pursuant to the authority delegated to him under section 6(n)(2) of the EAA, designated Argentina, Austria, Finland, Ireland, South Korea, Sweden, and Switzerland as eligible destinations for export and re-export of items controlled for crime control (CC), not including equipment for the execution of human beings, law enforcement restraint devices, specially designed implements of torture, discharge type arms (stun guns, shock batons, etc.), or the technology to make law enforcement restraint devices and discharge type arms (ECCNs 0A981, 0A982, 0A983, 0A985 or 0E982) without a license under License Exception Strategic Trade Authorization.

⁸ Citations following each of the foreign policy control programs refer to sections of the Export Administration Regulations (EAR), 15 CFR Parts 730-774, that describe the control program.

Licensing Policy

The U.S. Government has a general policy of denial for license applications to export crime control items to a country in which the government engages in a consistent pattern of gross violations of internationally recognized human rights. For other countries, the U.S. Government will consider applications for crime control items favorably, on a case-by-case basis unless there is civil disorder in the country or region of concern, or there is evidence that the government may have violated human rights and that the judicious use of export controls would be helpful in minimizing regional instability, deterring the development of a consistent pattern of such violations, or in demonstrating U.S. Government opposition to such violations.

Crime Control/Implements of Torture

The U.S. Government has a policy of denial for any license application to export specially designed implements of torture and thumbscrews.

People's Republic of China

Following the 1989 military assault on demonstrators by the PRC government in Tiananmen Square, the U.S. Government imposed constraints on the export to the PRC of certain items on the CCL. Section 902(a)(4) of the Foreign Relations Authorization Act for Fiscal Year 1990-1991, Public Law 101-246, suspends the issuance of licenses under Section 6(n) of the EAA for the export of any crime control or detection instruments or equipment to the PRC. The President may terminate the suspension by reporting to Congress that the PRC has made progress on political reform or that it is in the national interest of the United States to terminate the suspension. The President has not exercised his authority to terminate this suspension.

NATO

Certain crime control and detection instruments, equipment, related technology, and software may be exported to Australia, Japan, New Zealand, and members of NATO without a specific license, consistent with Section 6(n) of the EAA.

Organization of American States Member Countries

In April 1999, the Department of Commerce published a rule implementing the provisions of the Organization of American States (OAS) Model Regulations for the Control of the International Movement of Firearms. The Department of Commerce designed these regulations to harmonize import and export controls on the legal international movement of firearms among OAS member states and to establish procedures to prevent the illegal trafficking of firearms among these countries.

Under these provisions, the Department of Commerce maintains foreign policy controls on exports of Commerce-controlled firearms, including shotguns with a barrel length of 18 inches or over and parts, buckshot shells, shotgun shells and parts, and optical sighting devices to all OAS member countries, including Canada. Items subject to these controls are identified by “FC Column 1” in the “License Requirements” section of the corresponding ECCN. In support of the OAS Model Regulations for the Control of the International Movement of Firearms, the U.S. Government requires an Import Certificate (IC) for the export to all OAS member countries of those items affected by the regulations. In general, the Department approves license applications for the export of firearms to OAS member countries if the application is supported by an IC. The Department has a policy of denying applications that involve end uses linked to drug trafficking, terrorism, international organized crime, and other criminal activities.

Other Licensing Considerations

The Department of State annually compiles the *Country Reports on Human Rights Practices*. The Department of State prepares these reports in accordance with Sections 116(d) and 502B(b) of the Foreign Assistance Act of 1961, as amended, for submission to Congress. The factual information presented in these reports is a significant element in dual use export licensing recommendations made by the Department of State. In accordance with the Foreign Assistance Act, there is a policy of denial for license applications to export crime control items to any country in which the government engages in a consistent pattern of gross violations of human rights.

Applications to export crime control items to countries that are not otherwise subject to economic sanctions or comprehensive embargoes, but that are identified by the Department of State as violators of human rights, are flagged for additional scrutiny in the review process. The Department of State reviews all license applications for these countries on a case-by-case basis and makes recommendations to Commerce as it considers appropriate. Additionally, targeted sanctions maintained by the Department of the Treasury’s Office of Foreign Assets Control (OFAC) are currently imposed against certain countries and individuals.

The International Religious Freedom Act of 1998 (IRFA) calls for the President to take diplomatic or other appropriate action with respect to any country that engages in or tolerates violations of religious freedom. IRFA also provides for the imposition of economic measures or commensurate actions when a country has engaged in systematic, ongoing, egregious violations of religious freedom accompanied by flagrant denials of the rights to life, liberty, or the security of persons, such as torture, enforced and arbitrary disappearances, or arbitrary prolonged detention. For such countries, IRFA provides that the Department of Commerce, with the Department of State’s concurrence, shall restrict exports of items on the CCL for reasons of crime control or detection, and require export licenses for items that are being used, or are

intended for use, directly and in significant measure, to carry out particularly severe violations of religious freedom. In addition, IRFA requires that countries engaging in particularly severe violations of religious freedom be designated as Countries of Particular Concern. On September 13, 2011, the Secretary of State re-designated eight countries as Countries of Particular Concern: Burma, the PRC, Eritrea, Iran, North Korea, Saudi Arabia, Sudan, and Uzbekistan. These are countries where governments have engaged in or tolerated particularly severe violations of religious freedom over the past year. Some of these countries are already subject to economic sanctions or comprehensive embargoes. Applications to export crime control items to countries that are not otherwise subject to economic sanctions or comprehensive embargoes are flagged for additional scrutiny in the review process. The Department of State reviews all license applications for those countries on a case-by-case basis and makes recommendations to Commerce as appropriate.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

These controls seek to ensure that U.S.-origin crime control equipment is not exported to countries where governments fail to respect internationally recognized human rights or where civil disorder is prevalent. Denial of export license applications to such countries helps to prevent human rights violations and clearly signals U.S. concerns about human rights in these countries. The license requirements for most destinations allow for close monitoring of exports of certain crime control items that could be misused to commit human rights violations. Controls on implements of torture similarly help to ensure that such items are not exported from the United States.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. The lack of complementary controls over all of these items by other producer nations limits the effectiveness of these controls in preventing human rights violations, though some countries – notably those of the European Union (EU) – control exports of implements of torture or of lethal items. However, the U.S. controls restrict human rights violators’ access to U.S.-origin goods and provide important evidence of U.S. support for the principles of human rights. In addition, the imposition of stringent licensing requirements for crime control items enables the U.S. Government to monitor closely items that could be used in human rights violations.

2. ***Compatibility with Foreign Policy Objectives.*** The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of this control program will not have any significant adverse foreign policy consequences. This control program is fully consistent with U.S. policy in support of internationally recognized human rights, as expressed by successive Administrations and by Congress.

3. ***Reaction of Other Countries.*** The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. These controls are unique, serve a distinct foreign policy purpose, and arise out of deeply held convictions of the U.S. Government. Currently, other countries do not have completely equivalent regulations, but many have restrictions on exports of lethal products to areas of civil unrest.

4. ***Economic Impact on U.S. Industry.*** The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. In fiscal year 2011, the Department of Commerce approved 6,860 export license applications valued at \$2.5 billion for crime control items while the total value of all exports from the United States in calendar year 2010 was \$1.3 trillion. Table 1 lists the total number and value (by ECCN) of export licenses that the U.S. Government issued for crime control items during fiscal year 2011.

Table 1: Crime Control Applications Approved, Fiscal Year 2011

ECCN	Items Controlled	Applications Approved	\$ Value
0A978	Law enforcement striking weapons	181	\$26,758,207
0A979	Police helmets and shields	205	\$105,098,085
0A982	Restraint devices, e.g., leg irons, shackles, handcuffs	464	\$103,699,757
0A984	Shotguns and buckshot shotgun shells	1,160	\$74,793,490
0A985	Discharge type arms (stun guns, shock batons, etc.)	347	\$159,835,285
0A987	Optical sighting devices for firearms	2,457	\$241,155,482
0E984	Technology for items under 0A984	8	\$22
1A984	Chemical agents including tear gas containing 1% or less of CS or CN	108	\$12,355,410
1A985	Fingerprinting powders, dyes, and inks	203	\$74,261,001
3A980	Voice print identification and analysis equipment	5	\$154,565
3A981	Polygraphs, fingerprint analyzers, cameras, and equipment	579	\$1,263,167,850
3D980	Software for items under 3A980 and 3A981	440	\$168,210,285
3E980	Technology for items under 3A980 and 3A981	25	\$234,773
4A003*	Digital computers for computerized fingerprint equipment only	11	\$56,846,659
4A980	Computers for fingerprint equipment	19	\$38,340,757

ECCN	Items Controlled	Applications Approved	\$ Value
4D001*	Software for items under 4A003 only	299	\$299
4D980	Software for items under 4A980	17	\$66,223,440
4E001*	Technology for items under 4A003 and 4D001 only	329	\$54,718,991
5A980	Communications intercepting devices and parts/accessories	1	\$480
9A980	Non-military mobile crime science laboratories	2	\$1,280,000
TOTAL		6,860	\$2,447,134,838

NOTES: (1) Those ECCNs marked with an asterisk (*) list items that are controlled for crime control reasons and for other reasons, but the corresponding statistics represent only the crime control items within the ECCN. (2) BIS did not approve any applications during the relevant period for crime-controlled items under ECCNs 0A983 specially designed implements of torture, 0E982 technology for restraint devices/discharge type arms, 4E980 technology for computers for fingerprint equipment or 6A002.c police infrared viewers and related technology.

In fiscal year 2011, the Department of Commerce denied 20 applications for crime control items with a total value of \$4.9 million.

Table 2: Crime Control Applications Denied, Fiscal Year 2011

ECCN	Description	Applications Denied	\$ Value
0A979	Police helmets and shields	1	\$1,000,000
0A982	Restraint devices, e.g., leg irons, shackles, handcuffs	1	\$54,000
0A984	Shotguns and buckshot shotgun shells	9	\$690,450
0A985	Discharge type arms (stun guns, shock batons, etc.)	2	\$1,881,000
0A987	Optical sighting devices for firearms	4	\$847,900
1A985	Fingerprinting powders, dyes, and inks	1	\$400,680
3D980	Software for items under 3A980 and 3A981	1	\$3
3E980	Technology for items under 3A980 and 3A981	1	\$1
TOTAL		20	\$4,874,034

In fiscal year 2011, the Department of Commerce approved 3,917 export license applications valued at \$343.2 million for items affected by the foreign policy controls on firearms and ammunition instituted in 1999 in support of the OAS Model Regulations.

Table 3: Applications for Firearms, Ammunition and Sights to OAS Countries Approved, Fiscal Year 2011

ECCN	Items Controlled	Applications Approved	\$ Value
0A984	Shotguns and buckshot shotgun shells	1,160	\$74,793,490
0A986	Other shotgun shells	300	\$27,288,166
0A987	Optical sighting devices for firearms	2,457	\$241,155,482
TOTAL⁹		3,917	\$343,237,138

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Crime control items and implements of torture are easily recognizable and do not present special enforcement problems related to detecting violations or verifying use. However, enforcement cooperation with other countries generally is difficult in cases involving unilaterally controlled items such as these, and often depends on the type and quantity of goods in question. In addition, enforcement of controls on reexports is challenging and rests in large part on the willingness of the recipient to abide by the terms of the export license. The U.S. Government conducts post-shipment verifications to ensure that the listed end-user has received the exports and to confirm that the end-user is using the controlled items in a way consistent with the license conditions.

BIS conducted a number of recent enforcement actions regarding noncompliance with these export controls. For example:

Firearms and Ammunition to Nigeria

On July 11, 2011, Boniface Ibe was sentenced to five months in prison followed by 10 months of supervised release for exporting arms and controlled goods to Nigeria without a license, and for delivering a firearm to a common carrier without written notice.

⁹ Items in ECCN 0A986 are controlled only for Firearms Convention reasons. Items in ECCNs 0A984 and 0A987, however, are controlled both for Firearms Convention and Crime Control reasons. The statistics in this table for ECCNs 0A984 and 0A987 are a subset of the Crime Control statistics provided in Table 1 of this Chapter.

Riflescopes to the Philippines

On February 7, 2011, Mike Cabatingan pled guilty in U.S. District Court in the Central District of Los Angeles to charges of conspiracy. The charges relate to the export of rifle scopes to the Philippines without the required export license.

Shotguns to Nigeria

On January 3, 2011, in U.S. District Court in the District of Maryland, Emenike Charles Nwankwoala, a Maryland State Probation Officer in Upper Marlboro, MD, was sentenced to 37 months in prison and two years of supervised release. On April 28, 2010, Nwankwoala, pled guilty to exporting arms without a license, exporting Commerce controlled goods without a license, and the willful delivery of a firearm to a common carrier without written notice. Nwankwoala exported firearms, including 24 Commerce controlled shotguns, to Nigeria without the required licenses.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. The comment period closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I.

The Department of Commerce consults with the Regulations and Procedures Technical Advisory Committee, one of seven technical advisory committees that advise BIS, in preparation for publication of major regulatory changes affecting crime controls. In addition, the Department of Commerce has consulted with exporters of crime control items and with human rights groups concerned about the potential for misuse of such items in various parts of the world. BIS has frequent consultations with exporters about specific items proposed for export to specific end users and for specific end uses.

D. Consultation with Other Countries

Most other countries that supply crime control and detection items have not imposed similar export controls. The United Kingdom and Canada maintain controls similar to U.S. controls on certain crime control commodities. Certain European Union member states prohibit or impose an authorization requirement on the export of dual-use items not covered by the multilateral export control regimes for reasons of public security or human rights considerations.

E. Alternative Means

Section 6(n) of the EAA requires the Department of Commerce to maintain export controls on crime control and detection equipment. Attempting to achieve the purposes of the crime control restrictions through negotiations or other alternative means would not meet this requirement. The U.S. Government does, however, use diplomatic efforts, sanctions, and other means to convey its concerns about the human rights situation in various countries.

F. Foreign Availability

The foreign availability provision does not apply to Section 6(n) of the EAA.¹⁰ Congress has recognized the usefulness and symbolic value of these controls in supporting U.S. Government policy on human rights issues, foreign availability notwithstanding.

¹⁰ Provisions pertaining to foreign availability do not apply to export controls in effect before July 12, 1985, under Sections 6(i) (International Obligations), 6(j) (Countries Supporting International Terrorism), and 6(n) (Crime Control Instruments). See the Export Administration Amendments Act of 1985, Public Law No. 99-64, Section 108(g)(2), 99 Stat. 120, 134-35. Moreover, Sections 6(i), 6(j), and 6(n) require that controls be implemented under certain conditions without consideration of foreign availability.

CHAPTER 3

Regional Stability (Section 742.6)

Export Control Program Description and Licensing Policy

Regional Stability (RS) controls ensure that exports and reexports of controlled items do not contribute to the destabilization of the region to which the items are destined. These controls traditionally cover items specially designed or modified for military purposes and certain dual-use commodities that can be used to manufacture military equipment.

License Requirements and Licensing Policy

RS Column 1

Section 742.6 of the Export Administration Regulations (EAR) requires a license for RS reasons (RS Column 1 on the CCL) to export certain image-intensifier tubes, infrared focal plane arrays, certain imaging cameras incorporating image-intensifier tubes and infrared focal plane arrays, certain software and technology for inertial navigation systems, gyroscopes, and accelerometers, to all destinations except Canada. These items are included in Export Control Classification Numbers (ECCNs) 0A919, 6A002, 6A003, 6A008, 6A998, 6D001, 6D002, 6D003, 6D991, 6D994, 6E001, 6E002, 6E991, 7A994, 7D001, 7E001, 7E002, and 7E101.

The U.S. Government reviews all license applications for these items on a case-by-case basis to determine whether the export could contribute, directly or indirectly, to a country's military capabilities in a manner that would destabilize or alter a region's military balance contrary to U.S. foreign policy interests.

RS Column 2

In addition, Section 742.6 of the EAR imposes a license requirement for RS reasons (RS Column 2 on the CCL) to export explosives detection equipment and related software and technology, military-related items (e.g., searchlights, bayonets, certain vehicles and trainer aircraft), concealed object detection equipment, and certain commodities used to manufacture military equipment to all destinations except member nations of the North Atlantic Treaty Organization (NATO), Australia, Japan, and New Zealand. These items are described on the CCL under ECCNs 0A918, 0E918, 1A004.d, 1B018.a, 1D003, 1E001, 2A983, 2A984, 2B018, 2D983, 2D984, 2E983, 2E984, 8A918, and 9A018.a and .b, 9D018, and 9E018. The U.S. Government

will generally consider applications for such licenses favorably, on a case-by-case basis, unless the export would significantly affect regional stability. For explosives detection equipment and related technology classified under ECCNs 2A984, 2D984 and 2E984, license applications are reviewed with a presumption of approval when exported to Austria, Cyprus, Finland, Ireland, Israel, Malta, Mexico, Singapore or Sweden if the items are destined for a government end-user.

RS Controls for Certain Exports to Iraq

In addition, there are RS controls in place for certain items when exported to Iraq (or transferred within Iraq). These items are covered under the following ECCNs: 0B999 (specific processing equipment such as hot cells and glove boxes suitable for use with radioactive materials); 0D999 (specific software for neutronic calculations, radiation transport calculations, and hydrodynamic calculations/modeling); 1B999 (specific processing equipment, such as electrolytic cells for fluorine production and particle accelerators); 1C992 (commercial charges containing energetic materials, n.e.s.); 1C995 (certain mixtures and testing kits); 1C997 (ammonium nitrate); 1C999 (specific materials, n.e.s.); and 6A992 (optical sensors not controlled under ECCN 6A002). The licensing policy for these items is set forth in Section 746.3 of the EAR, and is consistent with the broader controls maintained on Iraq. These controls are discussed in more detail in Chapter 5 of this report.

RS Controls for Certain Thermal Imaging Cameras

Special RS Column 1 requirements apply to certain thermal imaging cameras classified under ECCN 6A003b.4.b. Export and reexport license requirements and license review policies for these products vary depending on certain technical specifications of the cameras as well as the proposed end uses. Almost all cameras controlled by ECCN 6A003.b.4.b are controlled under Regional Stability Column 1 (RS1) and require an export or reexport license for all destinations other than Canada. Cameras classified under ECCN 6A003.b.4.b can be subject to a more favorable licensing policy, however, if they are packaged for civil use and destined only for Albania, Australia, Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, or the United Kingdom. A license is required to export or reexport to Hong Kong any item classified under ECCN 6A003.b.4.b.

Cameras controlled by ECCN 6A003.b.4.b that fall below certain technical thresholds are controlled at the lower Regional Stability control level (RS2) when fully packaged for use as a consumer-ready civil product. Applications to export or reexport these cameras will be

considered favorably unless there is evidence the export or reexport would contribute significantly to the destabilization of the region to which the camera is destined.

There is also a license requirement on reexports of military commodities produced outside of the United States that incorporate one or more cameras controlled under ECCN 6A003.b.4.b. These products are controlled in ECCN 0A919 and are subject to RS Column 1 controls. Reexports of these military commodities require a license to all destinations except Canada, unless the military commodities are being reexported as part of a military deployment by a unit of the governments of Albania, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, or the United States. Applications for reexports of these military commodities will be reviewed applying policies for similar commodities that are subject to the International Traffic in Arms Regulations.

Summary of 2011 Changes

The Export Control Reform (ECR) initiative that was begun during the reporting period proposes a new regulatory construct for the transfer of items on the United States Munitions List (USML) to the Commerce Control List (CCL) that, in accordance with section 38(f) of the Arms Export Control Act (AECA)(22 U.S.C. 2778(f)(1)), the President determines no longer warrant control under the AECA. These items would then be controlled under the EAR once the congressional notification requirements of section 38(f) and corresponding amendments to the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120-130) and its USML and the EAR and its CCL are completed. On July 15, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 41958) implementing these structural changes to the EAR for the items that are moved from the United States Munitions List (USML) to the Commerce Control List (CCL) and which will be subject to Department of Commerce licensing authority. The rule proposes that these items under new ECCNs will be controlled for Regional Stability (RS) and Anti-Terrorism (AT) reasons in addition to other control reasons that will be specified in subsequent rules.

In addition, the following is a list of proposed rules published by BIS that propose the transfer of certain categories of items from the USML to the CCL:

On November 7, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 68675) entitled “Revisions to the Export Administration Regulations (EAR): Control of Aircraft and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, National

Security (NS), Anti-Terrorism (AT), and in certain cases, Missile Technology (MT) reasons. NS controls are not the subject of this report. Please refer to Chapter 4 for a description of AT controls. Please refer to Chapter 8 for a description of MT controls.

On December 6, 2011 the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 76072) entitled “Revisions to the Export Administration Regulations (EAR): Control of Gas Turbine Engines and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT reasons. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

On December 6, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 76085) entitled “Revisions to the Export Administration Regulations (EAR): Control of Military Vehicles and Related Items that the President Determines No Longer Warrant Control on the United States Munitions List.” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be for RS, NS and AT reasons. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls.

On December 23, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 80282) entitled “Revisions to the Export Administration Regulations (EAR): Control of Vessels of War and Related Articles the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls. Please refer to Chapter 4 for a discussion of AT controls.

On December 23, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 80291) entitled “Revisions to the Export Administration Regulations (EAR): Controls Applicable to Submersible Vessels, Oceanographic Equipment and Related Articles that the President Determines No Longer Warrant Control under the United States Munitions List.” This rule would add a number of items formerly controlled on the USML to the CCL. These items would be controlled for RS, NS and AT. NS controls are not the subject of this report. Please refer to Chapter 4 for a discussion of AT controls. Please refer to Chapter 4 for a discussion of AT controls.

In addition to the ECR related proposed rules listed above, the Department of Commerce published on January 9, 2012, a proposed rule in the *Federal Register* (77 FR 1017) entitled “Export and Reexport License Requirements for Certain Microwave and Millimeter Wave

Electronic Components.” This rule imposes regional stability export controls on certain high electron mobility transistors and monolithic microwave integrated circuits.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

Regional Stability controls provide a mechanism for the U.S. Government to monitor the export of controlled items, to restrict their use in instances that would adversely affect regional stability or the military balance within a region, and to protect the national security and foreign policy interests of the United States.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, although most of these items are increasingly available from abroad. The Secretary has also determined that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means, and that some of the items subject to these controls are also controlled, as a result of international negotiations, by U.S. partners in the Wassenaar Arrangement and the Missile Technology Control Regime (MTCR). Regional stability controls contribute to U.S. national security and foreign policy objectives by enabling the United States to restrict the use or availability of certain sensitive U.S.-origin goods and technologies that would adversely affect regional stability or the military balance in certain areas.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. Regional stability controls are consistent with U.S. foreign policy goals to promote peace and stability and prevent U.S. exports that might contribute to weapons production, destabilizing military capabilities, or acts of terrorism.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. A number of other countries limit exports of items and technologies with military applications to areas of concern, recognizing that such items and technologies could adversely affect regional stability and military balances. For example, the United States and other member countries of the Wassenaar Arrangement each have their own national controls on the export of certain night vision devices. All members of the MTCR maintain controls on software and technology related to missile

guidance and control devices. Although other countries may object to new unilateral RS controls, allies and partners of the United States support U.S. efforts against regional conflict and terrorism and appreciate the need to keep certain equipment and technologies from those who could misuse the items to destabilize countries or regions.

4. *Economic Impact on U.S. Industry.* Although the Secretary has determined that the adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives, the controls on cameras controlled by ECCN 6A003, which exceed the controls on similar products imposed by other producing countries, have significantly and adversely affected the competitiveness of this industry sector. Items controlled for RS reasons generally require licenses for export to all destinations except NATO countries, Australia, Japan, and New Zealand. However, certain RS-controlled items, including those controlled concurrently for missile technology reasons as well as cameras controlled under ECCN 6A003, require licenses for export to all destinations except Canada. Cameras controlled by ECCN 6A003 account for a large percentage of RS-controlled exports.

RS Column 1 Controls

In fiscal year 2011, the Department of Commerce approved 701 license applications for items controlled for RS1 reasons, with a total value of \$259 million. One license application was denied, for an ECCN 6A003 item, with a value of \$239,000.

Most of this licensing volume and value is accounted for by exports of thermal imaging cameras in ECCN 6A003 (491 licenses valued at \$205 million). However, the licensing activity for this ECCN is significantly less than in past years. Last year, BIS approved 622 licenses for 6A003 items, and in FY 2009 BIS approved 1,094 licenses. This decrease in license volume is due at least in part to the revision of controls on certain thermal imaging cameras that took effect in May 2009 in recognition of the emerging availability of these cameras around the world, the export licensing practices of other governments, and the potential use of these cameras in military applications.

The table that follows lists the total number and value by ECCN of export licenses that the Department of Commerce issued for regional stability (RS1) during fiscal year 2011:

**Table 1a: Regional Stability Applications Approved, Fiscal Year 2011
RS Column 1 Controls**

ECCN	Description	Number of Applications	Dollar Value
0A919	Military commodities produced outside the U.S. incorporating 6A003b.4.b cameras	55	\$28,204,800
+6A002.a.1, a.2., a.3, c, e	Optical detectors and direct view imaging equipment incorporating image intensifier tube or focal plane arrays	28	\$9,185,377
+6A003.b.3, b.4	Imaging cameras incorporating image intensifiers or focal plan arrays	491	\$205,087,777
6A008.j.1	Space-qualified LIDAR equipment	0	0
6A998.b	Space-qualified LIDAR equipment for meteorological observation	0	0
6D001	Software for development/ production of RS-controlled items in 6A002.a.1, a.2, a.3, c; 6A03.b.3 and 6A008.j	0	0
6D002	Software for the use of 6A002.a.1, a.2, a.3, c; 6A03.b.3 and 6A008.j	0	0
+6D003.c	Software for cameras with focal plane arrays	4	\$41,000
6D991	Software for development/ production/use of 6A002.e or 6A998.b	0	0
6D994	Software for cameras with focal plane arrays	0	0
+6E001	Technology for the development of RS-controlled items in 6A002, 6A003, and 6A008	21	\$1,376,326
+6E002	Technology for the production of RS-controlled items in 6A002, 6A003, and 6A008	16	\$2,041
6E991	Technology for development/production/ use of 6A998b	0	0
7A994	QRS-11 Sensors	0	0
+7D001	Software for the development or production inertial navigation systems	2	\$1,001

ECCN	Description	Number of Applications	Dollar Value
+7E001	Technology for the development of inertial navigation systems, inertial equipment and specially designed components for civil aircraft	44	\$65,573
+7E002	Technology for the production of inertial navigation systems, inertial equipment and specially designed components for civil aircraft	5	\$6,500
+7E101	Technology for the use of inertial navigation systems	35	\$15,048,330
TOTAL		701	\$259,018,725

NOTES: (1) For ECCNs marked with “+”, only a portion of the ECCN is subject to RS controls, but the total number of licenses and dollar value for the complete ECCN are given. In most cases, the subcategories under these ECCNs that are not controlled for regional stability reasons are minimal.

RS Column 2 Controls

Explosives detection equipment in ECCN 2A983 and military trainer aircraft and vehicles in ECCN 9A018 account for the bulk of licenses controlled for RS2 reasons. There were 759 total approved licenses for RS2 controlled items with a total value of \$388 million. 12 licenses were denied for RS2 controlled items in FY11 – 11 for ECCN 9A018 items with a total value of \$44,617,674 and one for technology in ECCN 9E018 with a value of \$1,000.000.¹¹

¹¹Only a portion of the ECCN 9A018 is subject to RS controls, but the total number of licenses and dollar value for the complete ECCN are given. In most cases, the subcategories under these ECCNs that are not controlled for regional stability reasons are minimal.

The table that follows lists the total number and value by ECCN of export licenses that the Department of Commerce issued for regional stability (RS2) during fiscal year 2011:

**Table 1b: Regional Stability Applications Approved, Fiscal Year 2011
RS Column 2 Controls**

ECCN	Description	Number of Applications	Dollar Value
0A918	Military Equipment not on the Wassenaar Munitions List	13	\$38,988
0E918	Technology for the development, production or use of bayonets	0	0
*1A004.d	Explosives detection equipment	0	0
1B018.a	Equipment for production of military explosives	6	\$819,409
+1D003	Software for equipment for production of military explosives	26	\$786,352
*1E001	Technology for equipment for production of military explosives	0	0
2A983	Explosives detection equipment	111	\$110,365,630
2A984	Concealed object detection equipment	0	0
2B018	Equipment on the Wassenaar Munitions List	21	\$5,825,332
2D983	Software for equipment in 2A983	86	\$6,517,029
2D984	Software for equipment in 2A984	0	0

ECCN	Description	Number of Applications	Dollar Value
2E983	Technology for equipment in 2A983	62	\$1,742,061
2E984	Technology for equipment in 2A984	0	0
8A918	Marine boilers	0	0
+9A018.a, b	Military trainer aircraft and vehicles designed or modified for military use	390	\$261,197,219
+9D018	Software for the use of items in 9A018.a.,b	1	\$0
+9E018	Technology for the development or production of items in 9A018.a.,b	43	\$1,099,680
TOTAL		759	\$388,391,700

NOTES: (1) For ECCNs marked with “+”, only a portion of the ECCN is subject to RS controls, but the total number of licenses and dollar value for the complete ECCN are given. In most cases, the subcategories under these ECCNs that are not controlled for RS reasons are minimal. (2) For ECCNs marked with “*”, a majority of the licensing volume is accounted for by items not controlled for RS reasons; it is not possible to separate the RS-controlled portion only for statistical purposes.

With regard to the special regional stability controls in place for Iraq, BIS licensed a total of 29 applications valued at \$525,559,289. The majority of these applications (18 with a value of \$523,470,112) were for oil well perforators under ECCN 1C992. Other applications were for 1B999 (8 licenses) and 1C999 (3 licenses) items. There were no denials for RS controlled items for Iraq in FY 2011.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Image intensifier tubes, infrared focal plane arrays, certain software and technology for inertial navigation systems, gyroscopes, and accelerometers, and other items controlled for RS purposes are almost all subject to multilateral controls for either national security (NS) or missile technology (MT) reasons, though in these

instances the RS control is redundant. The multilateral nature of these controls aids in enforcement only for these redundant controls.

Other RS controls cover items of lower level technologies that have been de-controlled by the multilateral regimes, and are widely available from other exporting countries. The Department of Commerce effectively enforces RS controls by focusing on preventive enforcement, using regular outreach efforts to keep businesses informed of U.S. concerns, and gathering leads on activities of concern. Additionally, exporters are required to report to BIS on exports of thermal imaging cameras decontrolled by the May 2009 regulatory change, enabling BIS to verify that the cameras continue to be sold to appropriate end-users and that the changes in controls are not jeopardizing U.S. national security or foreign policy interests. Given the enhanced anti-terrorism efforts of the U.S. Government, it is expected that industry will continue to support enforcement efforts.

C. Consultation with Industry

On September 1, 2011, the Department of Commerce solicited public comment in the *Federal Register* (76 FR 54426) on the effectiveness of U.S. foreign policy-based export controls, including controls on RS items. The comment period on the *Federal Register* notice closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I. In addition, comments were solicited from the public via the BIS website. Comments from the Department's seven Technical Advisory Committees are solicited on a regular basis, but are not detailed in this report. In particular, the Department holds quarterly consultations with the Sensors and Instrumentation Technical Advisory Committee (SITAC). The SITAC frequently addresses the RS controls on thermal imaging cameras and related items and technology.

D. Consultation with Other Countries

The United States imposes RS controls on items that either are controlled, or were at one time controlled, by the Wassenaar Arrangement. Wassenaar Arrangement member countries hold extensive consultations, and certain member countries hold bilateral discussions regarding items on the Wassenaar control list. During 2011, the U.S. Government engaged in extensive consultations with its Wassenaar partners. Wassenaar participating states incorporate the Wassenaar Dual-Use Control List into their own national export controls to prevent exports that could contribute to destabilizing buildups of conventional arms.

E. Alternative Means

The United States has undertaken a wide range of actions to support and encourage regional stability and has specifically encouraged efforts to limit the flow of arms and militarily useful

goods and other special equipment to regions of conflict and tension. U.S. regional stability export controls remain an important element in U.S. efforts to enhance regional stability. The United States opposes the use of U.S.-origin items to destabilize legitimate political regimes or fuel regional conflicts, notwithstanding the availability of such items from other sources. Accordingly, there are no alternative means to achieve this policy objective.

F. Foreign Availability

Some military vehicles and other military-type equipment that are controlled for RS purposes may be obtained from foreign sources. Software, technology, chemicals, low capability sensors, and other items controlled for RS purposes are widely available. However, in some cases there are overlapping multilateral NS controls on many RS-controlled items. Some of the commodities, related software, and technology controlled for RS purposes are also subject to multilateral controls for either NS or Missile Technology (MT) reasons under multilateral regimes. In these cases, the RS controls are redundant. Therefore, controls imposed by multilateral regime members restrict foreign availability of these items.

Manufacturers of imaging cameras controlled in ECCN 6A003 have voiced concern to the Department of Commerce that there is considerable foreign availability of these items from Europe, Japan, and China. This foreign availability and differences in licensing practices were major factors that led to the decision to revise RS controls on certain thermal imaging cameras in the regulation published on May 22, 2009 (74 FR 23941). This regulation reduced licensing requirements for certain cameras when exported to 37 countries and has reduced the licensing volume significantly.

CHAPTER 4

Anti-Terrorism Controls (Sections 742.8, 742.9, 742.10, 746.2)

Export Control Program Description and Licensing Policy

The U.S. Government controls exports of items subject to the Export Administration Regulations (EAR) for Anti-Terrorism reasons under Sections 6(a) and 6(j) of the Export Administration Act of 1979, as amended (EAA). Pursuant to Section 6(j) of the EAA, the Secretary of State has designated four countries—Cuba, Iran, Sudan, and Syria—as nations with governments that have repeatedly provided support for acts of international terrorism and has designated these countries as state sponsors of terrorism.¹² Controls imposed for Anti-Terrorism reasons are identified in the EAR as Anti-Terrorism (AT) controls. Additionally, the United States maintains broad controls, and in some cases comprehensive sanctions, on exports and reexports to Cuba, Iran, Sudan, and Syria. The broader controls applicable to such countries are discussed in Chapter 5 of this report.

Since December 1993, the U.S. Government has reviewed license applications involving the export or reexport of the following five categories of dual-use items to military, police, intelligence, and other sensitive end-users within countries designated as terrorist-supporting countries in accordance with the criteria set forth in Section 6(j)(1)(B) of the EAA:

- all items on the CCL subject to national security controls;
- all items on the CCL subject to chemical and biological weapons proliferation controls;
- all items on the CCL subject to missile proliferation controls;
- all items on the CCL subject to nuclear weapons proliferation controls; and
- all military-related items on the CCL (items controlled by CCL entries ending with the number 18).

Specifically, on December 28, 1993, the Acting Secretary of State determined that items in these categories, if exported or reexported to military, police, intelligence organizations, or to other sensitive end-users in a designated terrorist-supporting country, could make a significant

¹²Although the designation of North Korea was rescinded on October 11, 2008, the EAR have not been revised to remove the AT controls. Moreover, additional export control requirements under the EAR apply to exports and reexports to that country on the basis of other laws and regulations, and in accordance with United Nations Security Council Resolution 1718 (UNSCR 1718).

contribution to that country's military potential or could enhance its ability to support acts of international terrorism. As a result, any export or reexport of an item in these categories is subject to a 30-day congressional notification period prior to approval.

The United States controls exports and reexports of such items to other, non-sensitive end-users, as well as exports and reexports of certain other CCL items to all end-users, in designated state sponsors of terrorism for foreign policy purposes under Section 6(a) of the EAA, which provides the general authority for foreign policy controls. Such transactions are also reviewed against the Section 6(j) standard on a case-by-case basis.

License Requirements and Licensing Policy

Pursuant to the 1993 determination of the Acting Secretary of State and subsequent action consistent with it, exports and reexports of items in the five categories described above to certain sensitive end-users in terrorist-supporting countries are controlled for AT reasons pursuant to Section 6(j) of the EAA. In accordance with Section 6(a) of the EAA, the Department of Commerce requires a license for the export and/or reexport of items in these five categories to non-sensitive end-users and certain items on the CCL to all end-users in designated terrorist-supporting countries for AT reasons. The applicable controls are contained in the relevant EAR sections pertinent to each country.

The Department of Commerce refers all license applications for items controlled for AT reasons to the Department of State for review. With respect to items controlled pursuant to Section 6(a) (including exports or reexports of items on the CCL to non-sensitive end-users), an initial determination is made regarding whether the requirements of Section 6(j) apply. If the Secretary of State determines that the particular export or reexport to a state sponsor of terrorism "could make a significant contribution to the military potential of the destination country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism" pursuant to Section 6(j)(1)(B), a license will be required and the Departments of Commerce and State must notify the appropriate congressional committees 30 days before issuing one, consistent with the provisions of Section 6(j)(2) of the EAA. Transactions that do not rise to the Section 6(j)(1)(B) standard are generally reviewed on a case-by-case basis.

Pursuant to Section 6(a) of the EAA, the Department of Commerce requires a license for the export and/or reexport of certain items on the CCL to all end-users in all designated terrorist-supporting countries for AT reasons. The applicable controls are contained in the relevant EAR sections pertinent to each country. All applicable controls currently maintained for AT reasons pursuant to either Section 6(j) or Section 6(a) of the EAA continues in force.

Moreover, as described further in Chapter 5, the United States maintains additional controls on exports and reexports to Cuba, Iran, North Korea, Sudan, and Syria. As a result, the U.S. Government reviews license applications for exports and reexports of most AT-controlled items to these countries under a general policy of denial, with limited exceptions.

Summary of 2011 Changes

On July 13, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 41046) amending the EAR consistent with the U.S. Government's July 9, 2011 formal recognition of the Republic of South Sudan ("South Sudan") as a new country. BIS added South Sudan to the Commerce Country Chart. South Sudan is in Country Group B and thus exports to South Sudan are eligible for certain License Exceptions. The AT controls that continue to apply to the Republic of the Sudan ("Sudan") under the EAR do not apply to South Sudan. A license is required for the export or reexport to South Sudan of items subject to the EAR that are controlled unilaterally for Regional Stability and Crime Control reasons, and items controlled by the multilateral export control regimes (Australia Group, Wassenaar Arrangement, Chemical/Biological Weapons Conventions, Nuclear Suppliers Group, and Missile Technology Control Regime).

On July 15, 2011, the Department of Commerce published a proposed rule in the *Federal Register* (76 FR 41958) implementing structural changes to the EAR for the items that are moved from the United States Munitions List (USML) to the Commerce Control List (CCL) and which will be subject to Department of Commerce licensing authority. The rule establishes that these items under new ECCNs will be subject to control for Regional Stability (RS) and Anti-Terrorism (AT) reasons in addition to other control reasons that will be specified in subsequent rules.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

Anti-Terrorism controls are intended to prevent acts of terrorism and to distance the United States from nations that have repeatedly supported acts of international terrorism and from individuals and organizations that commit terrorist acts. The controls demonstrate U.S. resolve not to trade with nations or entities that fail to adhere to acceptable norms of international behavior. The policy provides the United States with the means to control U.S. goods or services that might contribute to the military potential of designated countries and to limit the availability of such goods or services for use in support of international terrorism. U.S. foreign policy objectives are also furthered by ensuring that items removed from multilateral regime lists continue to be controlled to designated terrorist-supporting countries. With respect to exports

and reexports to Cuba, Iran, North Korea, Sudan, and Syria, AT controls are maintained as part of broader U.S. sanctions discussed in Chapter 5.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the availability of AT-controlled items from other countries. The Secretary has also determined that the foreign policy purpose cannot be achieved through negotiations or other alternative means. Although widespread availability of comparable goods from foreign sources limits the effectiveness of these controls, the controls restrict access to U.S.-origin commodities, technology, and software, and demonstrate U.S. determination to oppose and distance the United States from international terrorism.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and specifically, with U.S. policy toward the designated terrorist-supporting countries. The Secretary has also determined that the extension of these controls will not have any significant adverse foreign policy consequences. These controls affirm the U.S. commitment to restrict the flow of items and other forms of material support to countries, individuals, or groups for terrorist purposes.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. Most countries are generally supportive of U.S. efforts to fight terrorism and to stop the proliferation of weapons of mass destruction and the export and reexport of sensitive items to governments that have repeatedly provided support for acts of international terrorism.

4. *Economic Impact on United States Industry.* The Secretary has determined that the adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to United States foreign policy objectives. While U.S. industry has reported that AT controls have had a negative impact, the Secretary has determined that the detrimental impact on U.S. industry has been modest, while stopping state sponsorship of terrorism remains a very high priority of the U.S. Government.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to enforce these controls effectively. Because of the well-publicized involvement of these countries in acts of international terrorism, there is public knowledge of and support for U.S. controls, which facilitates enforcement. However, the large number of items exported in

normal trade to other countries, including some aircraft items and consumer goods that have many producers and end-users around the world, creates numerous procurement opportunities for brokers, agents, and front companies working for these countries. In addition, differences in export laws and standards of evidence for violations complicate law enforcement cooperation among countries.

Notwithstanding these challenges, the Department of Commerce has developed effective mechanisms to enforce these controls, which serve vital U.S. foreign policy objectives. The Department of Commerce views these controls as a key enforcement priority, and uses outreach efforts and other programs to keep businesses informed of concerns and their obligations. BIS gathers leads on activities of concern and conducts end-use checks and Sentinel visits to verify end use and end-users of U.S.-origin licensed goods and technology. Sentinel teams assess the suitability of foreign end-users to receive U.S.-origin licensed goods and technology, assess prospective end-users on pending license applications for diversion risk, and conduct educational outreach to foreign trade groups. The Department is also developing a strong program to address procurement by or for designated terrorist-supporting countries. This program includes enhanced agent training, creation of a targeted outreach program to familiarize U.S. businesses with concerns, and close cooperation with lead agencies working on terrorism issues.

BIS conducted a number of recent enforcement actions regarding noncompliance with these export controls. For example:

Networking Equipment to Libya

On July 1, 2011, Mohammed El-Gamal, also known as Moe Zayed El-Gamal, President and CEO of Applied Technology Inc. (ATI), located in Kenansville, NC, agreed to pay a civil penalty of \$340,000 to settle allegations that he committed four violations of the Export Administration Regulations (EAR) related to the export of networking equipment controlled for Anti-Terrorism reasons, to the General Electric Company of Libya, without the required Department of Commerce licenses.¹³

Electrical Components to Iran

On August 27, 2010, Yi-Lan Chen, a.k.a. Kevin Chen, a Taiwanese national, was sentenced in U.S. District Court in Southern District of Florida to 42 months in prison, followed by 24 months of supervised release, and a \$300 special assessment. Chen's company, Landstar Tech Company, Inc. (Landstar), was also sentenced to 12 months of probation and a \$400 special assessment. On May 13, 2010, both Chen and Landstar pled guilty to conspiracy to violate the

¹³ Although BIS does not currently maintain AT controls to Libya, the violations occurred at a time when BIS maintained AT controls for Libya under the EAR.

International Emergency Economic Powers Act (IEEPA) and the Iranian Transactions Regulations (ITR). Chen also pled guilty to attempting to violate the IEEPA and the ITR. In February 2010, Chen met with undercover agents in the U.S. Territory of Guam to take possession of U.S.-origin electrical connectors and glass to metal pin seals for his customers in Iran.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I.

The Department continues to engage in an ongoing dialogue with the Regulations and Policy Technical Advisory Committee (RPTAC) concerning items controlled only for AT reasons. The RPTAC has asserted that many such items are widely available from foreign sources, and therefore has questioned the effectiveness of the controls. The RPTAC also has stated that every country currently subject to AT controls is also subject to comprehensive sanctions or embargo. The RPTAC, however, has not disputed either the importance of the controls to United States foreign policy or the effectiveness of the particular enforcement mechanisms used by the Department.

D. Consultation with Other Countries

The United States continues to consult with a number of countries, both on a bilateral and a multilateral basis, about activities of designated terrorist-supporting countries. In general, most countries are supportive of U.S. anti-terrorism efforts but do not implement export control programs comparable to that of the United States. However, the continued maintenance of sanctions by many other countries limits foreign availability for some destinations.

E. Alternative Means

The United States has taken a wide range of diplomatic, political, and security-related steps, in addition to economic measures such as export controls, to persuade certain countries to discontinue their support for terrorist activities. The methods that the United States uses against a country, terrorist organization, or individual vary and are dictated by the circumstances prevailing at any given time. In general, the United States believes that maintenance of AT controls is an appropriate method to encourage the designated terrorism-supporting countries to act against terrorist elements within their jurisdiction or control. See also Chapter 13 for a

discussion of the Entity List, a list set forth in the EAR of persons to which license requirements apply based on criteria that include support for terrorism.

F. Foreign Availability

The foreign availability provision does not apply to items determined by the Secretary of State to require control under Section 6(j) of the EAA.¹⁴ Congress specifically excluded AT controls from foreign availability assessments otherwise required by the EAA, due to the value of such controls in emphasizing the U.S. position on countries whose governments support international terrorism. However, the Department of Commerce has considered the foreign availability of items controlled to designated terrorist-supporting countries under Section 6(a) of the EAA. Although there are numerous foreign sources for items similar to those subject to control, the continued maintenance of sanctions by many other countries limits foreign availability for some destinations. In addition, the U.S. Government's AT controls serve important foreign policy interests.

¹⁴ Provisions pertaining to foreign availability do not apply to export controls in effect before July 12, 1985, under sections 6(i) (International Obligations), 6(j) (Countries Supporting International Terrorism), and 6(n) (Crime Control Instruments). See the Export Administration Amendments Act of 1985, Public Law 99-64, section 108(g)(2), Stat. 120, 134-35. Moreover, Sections 6(i), 6(j), and 6(n) of the EAA require that controls be implemented under certain conditions without consideration of foreign availability.

Chapter 5

Embargoes, Sanctions, and Other Special Controls (Sections 744.8, 744.12, 744.13, 744.14, 744.18, 744.20, 744.22, 746.2, 746.3, 746.4, 746.7, 746.9, and General Order No. 2 (Supplement No. 1 to Part 736))

Export Control Program Description and Licensing Policy

This Chapter discusses the Department of Commerce's implementation of comprehensive and partial embargoes and sanctions programs, and other special controls maintained by the U.S. Government pursuant to the Export Administration Regulations (EAR), either unilaterally or to implement United Nations (UN) Security Council Resolutions. Specifically, the U.S. Government maintains either partial or comprehensive economic and trade sanctions on Cuba, Iran, Sudan, Syria, and certain designated terrorist persons. The U.S. Government also maintains certain special export control programs, including programs relating to Iraq, North Korea, and certain other countries, consistent with international obligations. Finally, the U.S. Government maintains special controls on certain persons, including those engaged in the proliferation of weapons of mass destruction. See also Chapter 13 for a discussion of the Entity List.

License Requirements and Licensing Policy

Certain Designated Persons

The Department of Commerce requires a license for the export or reexport of all items subject to the EAR to Specially Designated Global Terrorists (SDGTs), Specially Designated Terrorists (SDTs), and Foreign Terrorist Organizations (FTOs), and a general policy of denial applies to all applications for such exports or reexports. SDGTs, SDTs, and FTOs are identified with the bracketed suffixes [SDGT], [SDT], and [FTO], respectively, on a list of designated persons maintained by the Office of Foreign Assets Control (OFAC), U.S. Department of the Treasury, in Appendix A to 31 CFR Chapter V. Exports and reexports to SDGTs and SDTs that are authorized by OFAC generally do not require additional Bureau of Industry and Security (BIS) authorization (this rule does not apply to FTOs).

Furthermore, the Department of Commerce requires a license for exports and reexports of all items subject to the EAR to persons designated in or pursuant to Executive Order 13382 of June 28, 2005 (Weapons of Mass Destruction Proliferators and their Supporters), and a general policy of denial applies to all applications. The persons whose property or interests in property are blocked pursuant to Executive Order 13382 (74 FR 2355) are identified by OFAC in Appendix

A to 31 CFR Chapter V with the bracketed suffix [NPWMD]. Exports and reexports to NPWMDs that are authorized by OFAC generally do not require additional BIS authorization.

In addition, the Department of Commerce requires licenses for exports, reexports, and transfers to persons whose property and interests in property related to Burma are blocked pursuant to Executive Order 13310 of July 28, 2003, Executive Order 13448 of October 18, 2007, and Executive Order 13464 of April 30, 2008, and a general policy of denial applies to all applications. These license requirements apply to all items subject to the EAR other than agricultural commodities, medicine, or medical devices designated as EAR99 that are destined for persons whose property and interests in property are blocked pursuant to any of the Executive Orders. All persons listed in or designated pursuant to Executive Orders 13310, 13448, or 13464 are identified by OFAC in Appendix A to 31 CFR Chapter V with the bracketed suffix [BURMA]. Exports, reexports, or transfers to persons designated in or pursuant to these Executive Orders that are authorized by OFAC generally do not require additional BIS authorization.

Cuba

The Department of Commerce requires a license for export or reexport to Cuba of virtually all commodities, technology, and software subject to the EAR, with a few narrow exceptions for items generally authorized by a License Exception such as:

- food, and certain items to meet basic human needs;
- certain types of personal baggage;
- certain foreign-origin items in transit from Canada through the United States;
- items for U.S. Government personnel and agencies, and agencies of cooperating governments;
- certain donated consumer communications devices; and
- gift parcels containing items normally exchanged as gifts between individuals, including food, medicine, clothing, and certain consumer communications devices, provided that the value of non-food items does not exceed \$800.¹⁵

The Department of Commerce generally denies license applications for exports or reexports to Cuba. However, the Department considers applications for a few categories of exports, including the following, on a case-by-case basis when the exports are intended to provide

¹⁵ An individual donor does not require a license to send a gift parcel addressed to an individual recipient. A gift parcel consolidator who exports multiple parcels in a single shipment for delivery to Cuba does require a license. (See note to Section 740.12(a) of the EAR.)

support for the Cuban people or the transactions would be consistent with the foreign policy interests of the United States:

- exports from third countries of non-strategic, foreign-made products containing 20 percent or less U.S.-origin parts, components, or materials, provided the exporter is not a U.S.-owned or controlled foreign firm in a third country;
- exports and reexports of items necessary to provide efficient and adequate telecommunications links between the United States and Cuba, including links established through third countries, and including the provision of satellite radio or satellite television services to Cuba;
- exports of certain commodities destined to human rights organizations or to individuals and non-governmental organizations that promote independent activity;
- exports of certain commodities and software for U.S. news bureaus in Cuba;
- exports of certain agricultural items not eligible for License Exception Agricultural Commodities (AGR); and
- exports of certain vessels and aircraft on temporary sojourn to Cuba.

The Department of Commerce reviews applications for exports of donated and commercially supplied medicine or medical devices to Cuba on a case-by-case basis, pursuant to the provisions of Section 6004 of the Cuban Democracy Act of 1992. The United States will generally approve such exports, except in the following cases:

- to the extent Section 5(m) of the Export Administration Act of 1979, as amended (EAA) or Section 203(b)(2) of the International Emergency Economic Powers Act (IEEPA) would permit such restrictions;
- when there is a reasonable likelihood the item to be exported will be used for purposes of torture or other human rights abuses;
- when there is a reasonable likelihood the item to be exported will be reexported;
- when the item to be exported could be used in the production of any biotechnological product; or
- if it is determined that the U.S. Government is unable to verify, by on-site inspection and other appropriate means, that the item to be exported will be only for the use and benefit of the Cuban people. This exception does not apply to donations of medicine for humanitarian purposes to non-governmental organizations in Cuba.

The Department authorizes exports and certain reexports of agricultural commodities to Cuba under License Exception AGR, pursuant to section 906(a)(1) of the Trade Sanctions Reform and Export Enhancement Act of 2000 (TSRA). Under License Exception AGR, an exporter must submit prior notification of a proposed transaction to the Department of Commerce. The

exporter may proceed with the shipment when the Department confirms that no reviewing agency has raised an objection (generally within 12 business days), provided the transaction meets all of the other requirements of the License Exception. This expedited review includes the screening of the ultimate recipient of the commodities to ensure that it is not involved in promoting international terrorism.

Iran

On July 1, 2010, the President signed into law the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA). CISADA Title I expands sanctions on Iran predominantly through amendments to the Iran Sanctions Act of 1996 (ISA). Title I does not require changes to BIS regulations or practice because BIS does not currently process license applications for exports and reexports to Iran other than for deemed exports and reexports (see below). Title III requires the President to designate countries as Destinations of Diversion Concern if he determines that the government of the country allows “substantial diversion” of certain goods, services, or technologies through the country to Iranian end-users or Iranian intermediaries. Further, the President must impose a license requirement under the International Traffic in Arms Regulations or under the EAR, as applicable, pertaining to those goods, services, or technologies within 45 days of submitting to Congress a report notifying it of the designation of a country as a Destination of Diversion Concern.

OFAC administers the U.S. Government’s comprehensive trade and investment sanctions against Iran. No person may export or reexport items subject to the EAR if such transaction is prohibited by OFAC’s Iranian Transactions Regulations and not authorized by OFAC. Virtually all trade and investment activities with Iran by U.S. persons, wherever located, are prohibited by the Iranian Transactions Regulations. Certain trade activities by non-U.S. persons, including some reexports, are also prohibited by OFAC under these regulations.

The Department of Commerce imposes license requirements for exports and reexports to Iran of most items on the CCL. The Iran-Iraq Arms Non-Proliferation Act of October 23, 1992 (IIANPA) requires BIS to deny licenses for items controlled to Iran for national security (Section 5 of the EAA) or foreign policy (Section 6 of the EAA) reasons. License applications for exports or reexports of these items are subject to a general policy of denial, absent contract sanctity or a Presidential waiver of restrictions under IIANPA. In some cases, the EAR impose license requirements on items designated as EAR99 that are (1) destined to end-users listed in OFAC’s list of Specially Designated Nationals, or (2) destined to end uses prohibited by Part 744 of the EAR. Because they are not specific to Iran, the license requirements for items designated as EAR99 are listed in either this Chapter’s description of controls on certain designated persons or in Chapter 13’s discussion of the BIS Entity List.

Notwithstanding Department of Commerce license requirements and licensing policies, OFAC is the primary licensing agency for exports and reexports to Iran, and BIS does not, in practice, receive or process license applications for transactions involving Iran except under the following circumstances: (1) the license is for the deemed export of technology or source code subject to the EAR to Iranian nationals in the United States or of the deemed reexport of such technology or source code to Iranian nationals located abroad; or (2) the license is for the export or reexport of items to certain end-users or for certain end uses in Iran that are prohibited pursuant to provisions of the EAR that are not specific to Iran (e.g., Part 744 end-use/end-user controls).

BIS takes enforcement action against violations of the Iran-related provisions of the EAR. It is a violation of the EAR to export or reexport to Iran any item that is subject to the EAR – including items designated as EAR99 – if such transaction requires authorization by OFAC pursuant to the Department of the Treasury’s Iranian Transactions Regulations and such authorization has not been obtained.

Iraq

The Department of Commerce requires a license for the export or reexport to Iraq, or transfer within Iraq, of the following:

- any item controlled on the CCL for National Security (NS), Missile Technology (MT), Nuclear Nonproliferation (NP), Chemical Weapons Convention (CW), Chemical & Biological Weapons (CB), Regional Stability (RS), Crime Control (CC), Encryption Information (EI), Significant Items (SI), or Surreptitious Listening (SL) reasons;
- any item controlled on the CCL for United Nations Embargo (UN) reasons;
- items on the CCL controlled for RS reasons under the following ECCNs: 0B999, 0D999, 1B999, 1C992, 1C995, 1C997, 1C999 and 6A992;
- any item subject to the EAR if, at the time of the export, reexport or transfer, it is known the item will be, or is intended to be, used for a military end use or by a military end-user.

As defined specifically for Iraq, a military end-user is any person or entity whose actions or functions are intended to support military end uses and who is not recognized as a legitimate military organization by the U.S. Government. “Military end use” is the incorporation of an item into a military item described on the U.S. Munitions List (USML) (22 CFR Part 121, International Traffic in Arms Regulations (ITAR)), or the Wassenaar Arrangement Munitions List (WAML); or use, development, or deployment of military items described on the USML or the WAML. The Department reviews license applications destined to such end-users under a policy of denial.

The Department of Commerce also reviews license applications for the following items under a general policy of denial:

- items destined for use in Iraqi civil nuclear or military nuclear activity (except for use of isotopes for medical, industrial, or agricultural purposes);
- machine tools controlled for NS reasons, machine tools controlled for NP reasons, any item controlled for CC or UN reasons, or any item controlled under an ECCN ending in the number “018,” if such item would make a material contribution to the production, research, design, development, support, maintenance, or manufacture of Iraqi weapons of mass destruction, ballistic missiles, or arms and related materiel; and
- items controlled for RS reasons under ECCNs 0B999, 0D999, 1B999, 1C992, 1C995, 1C997, 1C999 or 6A992 that will not contribute to the building of Iraqi civil infrastructure.

The Department of Commerce additionally requires a license for exports, reexports, or transfers of any item subject to the EAR to persons listed in the Annex to Executive Order 13315, as amended (“Blocking Property of the Former Iraqi Regime, Its Senior Officials and Their Family Members, and Taking Certain Other Actions”), as well as persons subsequently designated by the Secretary of the Treasury pursuant to that executive order. U.S. persons are not required to seek separate BIS authorization for an export, reexport, or transfer to a designated person that has already been authorized by the Department of the Treasury; however, license applications for such transactions are subject to a general policy of denial by the Department of Commerce.

North Korea

North Korea is subject to sanctions based on its nuclear and ballistic missile tests, engagement in proliferation and other illicit activities and human rights violations. Consistent with UN Security Council Resolutions 1718 and 1874, and as set forth in Section 746.4 of the EAR, BIS requires a license for the export or reexport to North Korea of all items subject to the EAR, except food and medicines designated as EAR99. Other controls on North Korea are located in Section 742.19 of the EAR.¹⁶

Pursuant to Section 746.4 of the EAR, applications for items requiring a license for export or reexport to North Korea are subject to case-by-case review, except as follows:

- Applications to export or reexport luxury goods are subject to a general policy of denial.

¹⁶ The Secretary of State rescinded North Korea’s designation as a state sponsor of terrorism on October 11, 2008. Section 742.19 of the EAR has not been amended to reflect the rescission.

- Applications to export or reexport arms and related materiel; items specified by UN documents S/2006/814, S/2006/815 and S/2006/853; and other items that the UN Security Council, or the Sanctions Committee established pursuant to UN Security Council Resolution 1718, has determined could contribute to North Korea's nuclear-related, ballistic missile-related or other weapons of mass destruction-related programs, are subject to a general policy of denial.
- Applications to export or reexport items controlled for NP and MT reasons (except ECCN 7A103 items) are subject to a general policy of denial.
- Applications to export or reexport items controlled for chemical and biological weapons and NS reasons, as well as applications to export or reexport many items only controlled for Anti-Terrorism reasons, are subject to a general policy of denial.
- Applications to export or reexport humanitarian items (e.g., blankets, basic footwear, heating oil, and other items meeting subsistence needs) intended for the benefit of the North Korean people; items in support of UN humanitarian efforts; and agricultural commodities or medical device items that are determined by BIS, in consultation with the interagency license review community, not to be luxury goods are subject to a general policy of approval.

Persons Sanctioned by the State Department

Pursuant to Section 744.20 of the EAR, the Department of Commerce may impose, as foreign policy controls, export and reexport license requirements and set licensing policy with respect to certain entities that have been sanctioned by the State Department. Entities upon which export and reexport license requirements have been imposed under Section 744.20 of the EAR are included on the Entity List, Supplement No. 4 to Section 744 of the EAR. Not all entities sanctioned by the State Department are incorporated into the Entity List.

Sudan

On July 13, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 41046) amending the EAR to reflect the U.S. Government's July 9, 2011 formal recognition of the Republic of South Sudan ("South Sudan") as a new country. BIS added South Sudan to the Commerce Country Chart. South Sudan is in Country Group B and exports to South Sudan are thus eligible for certain License Exceptions. The Anti-Terrorism controls that continue to apply to the Republic of the Sudan ("Sudan") under the EAR do not apply to South Sudan.

The U.S. Government requires a license for the export and reexport of nearly all items on the CCL to Sudan. Many items controlled on the CCL to Sudan may require a license from both the Departments of Commerce and the Treasury. License applications may be submitted to both agencies concurrently.

The Department of Commerce reviews, under a general policy of denial, applications for the export and reexport of all items controlled for chemical, biological, missile, and nuclear proliferation reasons, military-related items controlled for national security or regional stability reasons (CCL entries ending in the number 018), and certain items controlled for national security or foreign policy reasons, such as aircraft, cryptologic items, and explosive device detectors, for all end-users in Sudan. Other non-military-related items that are controlled to Sudan for national security or foreign policy reasons are subject to a general policy of denial for military end-users or end uses, and case-by-case review for non-military end-users or end uses.

Syria

On May 11, 2004, the President issued Executive Order 13338 to implement Sections 5(a)(1) and 5(a)(2)(A) of the Syria Accountability and Lebanese Sovereignty Restoration Act of 2003 (SAA). In compliance with the President's action, the Department of Commerce revised its license requirements and licensing policy for Syria to restrict all exports or reexports to Syria of items subject to the EAR (with the limited exceptions described below), as specified in General Order No. 2, which was published in the *Federal Register* on May 14, 2004 (69 FR 26766).

The Department of Commerce requires a license for the export or reexport to Syria of all commodities, technology, and software subject to the EAR, except food and medicine designated as EAR99, and "deemed exports" or "deemed reexports" to Syrian nationals of technology or source code designated as EAR99. Additionally, certain categories of items are authorized for export or reexport to Syria under License Exceptions:

- personal baggage for individuals leaving the United States;
- items for the use of the news media under certain conditions;
- exports for U.S. Government personnel and agencies;
- certain operation technology and software, sales technology, and software updates; and
- temporary sojourn of certain civil aircraft reexported to Syria.

The Department of Commerce generally denies license applications for exports or reexports to Syria. However, pursuant to the President's exercise of national security waiver authority in Executive Order 13338, the Department considers applications for the following on a case-by-case basis:

- items in support of U.S. Government activities;
- medicine on the CCL and medical devices;
- parts and components intended to ensure the safety of civil aviation and safe operation of commercial passenger aircraft;

- aircraft chartered by the Syrian Government for the transport of Syrian Government officials on official Syrian Government business;
- telecommunications equipment and associated computers, software, and technology to enhance the free flow of information, including items for general academic, administrative, business, and personal use; and
- items in support of UN operations in Syria.

United Nations Security Council Arms Embargoes

The United Nations Security Council maintains “partial” embargoes on the export of certain arms and related materiel to several countries, geographic regions, or persons within certain countries. UN embargoes of this kind are currently in place for the Democratic Republic of the Congo, Côte d’Ivoire, Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, North Korea, Somalia, and Sudan. The Department of Commerce expects to publish a regulation in the *Federal Register* that would implement these embargoes in the EAR and would also reflect the United Nations Security Council’s termination of prohibitions on the sale or supply of arms and arms-related materiel to Rwanda and Sierra Leone, pursuant to United Nations Security Council Resolutions 1823 and 1940 respectively.

Summary of 2011 Changes

On December 12, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 77115) amending the EAR to move the substantive provisions of the comprehensive sanctions against Syria from General Order No. 2 in Supplement No. 1 to Part 736 to a revised Section 746.9, while also retaining certain of these provisions in the General Order. Part 746 of the EAR addresses comprehensive sanctions and other special controls and is an appropriate place to include these Syria sanctions provisions. This move will enhance public awareness and understanding of comprehensive U.S. sanctions against Syria under the EAR. Existing licensing requirements and policies remain unchanged.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

Certain Designated Persons

The purpose of controls on designated terrorist persons (natural persons, entities, and groups) and proliferators of weapons of mass destruction and their supporters is to restrict exports of items that would be useful in enhancing the capability of these persons to undertake activities that support terrorism or contribute to the development of WMD.

The purpose of controls on political and military leaders and other persons in Burma that contribute to civil unrest and suppression of basic rights and freedoms in that country is to prevent these persons from acquiring items that could be used to carry out activities that are detrimental to U.S. foreign policy interests.

Cuba

The United States imposed an embargo on Cuba nearly five decades ago because Cuban Government actions posed a serious threat to the stability of the Western Hemisphere and the Cuban Government expropriated property of U.S. citizens without compensation. In March 1982, the Secretary of State designated Cuba as a state sponsor of terrorism under Section 6(j) of the EAA. The purpose of the controls is to restrict exports that would allow Cuba to act as a destabilizing force and/or to support terrorism. The controls demonstrate the United States' resolve to maintain stability in the region and to actively work against the threat of terrorism and those who support it. At the same time, U.S. support for the export of food, "gift packs," and other humanitarian items, such as medicines and medical devices, ensures that the Cuban population is not deprived of basic human supplies.

Iran

The purpose of the controls is to restrict exports of items that could enhance Iran's terrorism-supporting capabilities and to address other U.S. and international foreign policy concerns, including nonproliferation, human rights, and regional stability. By restricting the export of items that could have a military use, the controls demonstrate the resolve of the United States not to provide any direct or indirect military support for Iran and to support other U.S. foreign policy objectives. The United States' support for exports and reexports of food items, medical supplies, and medical equipment is designed to ensure that U.S. export controls on Iran do not prevent the Iranian population from receiving what it needs for humanitarian purposes.

Iraq

The purpose of the controls is to restrict exports to insurgents within Iraq and other inappropriate military end-users in Iraq, including the former Iraqi leadership, thereby limiting their ability to enhance or expand their activities.

North Korea

The purpose of the controls is to restrict certain exports and reexports to North Korea to comply with the United States' obligations as a member of the United Nations, and to demonstrate the United States' concern over North Korea's development, testing, and proliferation of nuclear weapons, missiles and missile technology, and other weapons of mass destruction.

Persons Sanctioned by the State Department

The purpose of the controls is to restrict exports to persons engaged in activities that are contrary to the foreign policy interests of the United States or have violated U.S. export control laws. These controls demonstrate the United States' opposition to activities of concern as well as its resolve to actively work against the diversion of sensitive items to unauthorized end-users or end uses.

Sudan

The U.S. sanctions and export controls remain in place against Sudan to restrict access to items that could make a significant contribution to Sudan's military capability. The controls maintained by BIS pursuant to the EAR support the broader sanctions maintained by OFAC pursuant to several executive orders and consistent with other applicable laws.

Syria

The Syrian Government continues to host Palestinian terrorist organizations in Syria and to provide political and material support to Hezbollah and other terrorist organizations in Lebanon. Moreover, the Syrian Government allows Iran to re-supply Hezbollah through Syrian territory. The U.S. Government also remains concerned about Syria's interference in Lebanon's internal affairs, the flow of foreign fighters through Syria destined for Iraq, and Syrian nuclear, missile, and chemical/biological programs. Additionally, the Government of Syria engages in widespread and routine abuses of human rights, including the use of violence and torture, arbitrary arrests, and detention of peaceful protesters. U.S. export controls reflect U.S. opposition to these activities. The controls also promote other U.S. foreign policy interests, including the protection of human rights and the encouragement of regional stability.

United Nations Security Council Arms Embargoes

BIS expects to implement controls in the EAR on arms-related items to the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, North Korea, Somalia, and Sudan to prevent any U.S. contribution to potential conflict within these countries and to conform to United Nations-mandated sanctions.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving Intended Foreign Policy Purpose. The Secretary has determined that the controls described in this Chapter are likely to achieve the intended foreign policy purpose, in light of other factors, including foreign availability from other countries. He has further determined that the foreign policy purpose cannot be achieved through negotiations or other alternative means. For each of the controls described in this Chapter, the Secretary has determined that such restrictions have denied the targeted countries and persons access to resources for use in activities that are contrary to the foreign policy of the United States. The

controls described in this Chapter seek to have the targeted entities or governments modify their actions. In addition, the applicable controls may reduce the potential for conflict.

Certain Designated Persons

The Secretary has determined that foreign policy controls will thwart the access that these persons have had to U.S.-origin items that could support terrorist operations, WMD proliferation, or other restricted activities.

Cuba

The Secretary has determined that the sanctions will help to bring about a peaceful and stable transition toward democracy and a free market economy in Cuba while providing for the basic human needs of the Cuban people.

Iran

The Secretary has determined that foreign policy controls will restrict Iran's access to specified U.S.-origin items that could contribute to Iranian support of terrorism and promotion of regional threats to U.S. interests.

Iraq

The Secretary has determined that foreign policy controls will restrict the ability of terrorists and insurgent groups to obtain and use U.S.-origin items to attack U.S. forces or to destabilize the current Government of Iraq.

North Korea

The Secretary has determined that the foreign policy controls will meet U.S. obligations under relevant UN Security Council resolutions and impede North Korea's development, testing, and proliferation of nuclear weapons and other WMDs.

Persons Sanctioned by the State Department

The Secretary has determined that foreign policy controls will thwart the access that these persons have to U.S.-origin items and their ability to divert such items to unauthorized end-users or end uses.

Sudan

The Secretary has determined that foreign policy controls will restrict the Government of Sudan's ability to obtain and use U.S.-origin items in support of military activities in Darfur. The controls are also likely to impede terrorist activities in Sudan and support international efforts to end the humanitarian crisis in Darfur.

Syria

The Secretary has determined that foreign policy controls will contribute to the Government of Syria ending its support of terrorist groups in Lebanon and elsewhere and its abuse of the human rights of its citizens.

United Nations Security Council Arms Embargoes

The Secretary expects that embargoes and partial embargoes on exports of arms-related items to the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, North Korea, Somalia, and Sudan will meet U.S. obligations under relevant UN Security Council resolutions.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives, and that the extension of these controls will not have any significant adverse foreign policy consequences. The controls complement U.S. foreign policy and other aspects of U.S. relations with these persons and countries. They encourage these persons and governments to modify their actions with the goal of improving conditions in their region. These controls are consistent with U.S. foreign policy goals of promoting peace and stability, and preventing weapons proliferation and human rights abuses.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective and that any adverse reaction by other countries would not be counterproductive to U.S. foreign policy interests. Notwithstanding the fact that most countries have not imposed embargoes as comprehensive as those of the United States, and that some countries have challenged certain U.S. controls as unwarranted extraterritorial measures, the overriding foreign policy objective of maintaining these controls outweighs negative foreign reactions. Opposition to U.S. foreign policy-based controls by many of our major trading partners, including some close allies, continues to be a point of contention. This reaction has led some foreign firms to design-out U.S. components or to cite the lack of their own national sanctions as a marketing tool to secure business contracts that might have gone to U.S. companies. In some instances, foreign governments have instructed foreign firms to ignore U.S. reexport controls. However, in certain areas, such as the nuclear threat posed by Iran and North Korea and the genocide in the Darfur region of Sudan, the United States has received broader international support for its sanctions policies from other countries.

Certain Designated Persons

Many countries support U.S. efforts to ensure that exports and reexports of U.S.-origin items are not used in terrorist activities, the development of WMD, or by entities or foreign governments that are perpetrating or promoting civil unrest in their own or other countries. The Department of Commerce promotes these shared objectives by blocking designated groups and individuals

from acquiring commodities that could aid or assist these groups in committing future acts deemed to support these activities. Although some countries are considering restrictive legislation, very few maintain export controls similar to those implemented by the United States. Many countries have imposed controls on entities specifically designated in UNSCRs.

Cuba

Although most countries recognize the right of the United States to determine its own foreign policy and security concerns and share U.S. concerns regarding Cuba, many countries continue to oppose controls on trade between the United States and Cuba, and an annual United Nations General Assembly resolution condemning the embargo passes each year with overwhelming support, with only the United States and Israel voting against it. Many nations support greater freedoms and economic reforms in Cuba, but refrain from overt criticism of the Cuban Government.

Iran

Other countries share U.S. concerns regarding Iran's support of terrorism, human rights abuses, and attempts to acquire WMD. This is especially the case in the nuclear context, where international concerns with Iran's intentions vis-à-vis its nuclear program have led to the unanimous adoption of UN Security Council resolutions imposing sanctions on Iran pursuant to Chapter VII of the UN Charter. The member states of the Group of Eight, the European Union, the members of the Nuclear Suppliers Group, and other multilateral bodies have joined the United States in expressing their concern over Iran's pursuit of a nuclear weapons capability and have called on Iran to cooperate fully and transparently with the International Atomic Energy Agency (IAEA). In general, however, U.S. controls on commercial goods to Iran are more stringent than most other countries' controls.

Iraq

The United States continues to impose an arms embargo on military end-users and end uses that are not affiliated with the Multinational Force in Iraq or the Iraqi Government in accordance with its obligations as a member of the United Nations. Many other member states also comply with these obligations and impose an arms embargo on Iraq. Other nations also share U.S. concerns about insurgent activities in Iraq.

North Korea

The United States maintained a comprehensive trade embargo against North Korea for almost 50 years, until 1994. In general, during that time period, U.S. allies largely acted in concert with the United States to deny North Korea strategic equipment and technology. Similarly, the easing of U.S. sanctions toward North Korea and the removal of some U.S. controls in June 2000 were echoed by other countries. However, as a result of North Korea's nuclear and missile tests in 2006 and 2009, the United Nations Security Council adopted UN Security Council Resolutions

1718 and 1874 imposing additional sanctions on North Korea and demonstrating international disapproval of North Korea's nuclear and ballistic missile-related activities. Pursuant to these UN sanctions, and on the basis of other relevant laws and regulations, the Department of Commerce continues to apply sanctions on North Korea which other countries generally support.

Persons Sanctioned by the State Department

Although other countries share U.S. concerns regarding the diversion of goods to unauthorized end-users or end uses, few countries maintain controls similar to those implemented by the United States.

Sudan

The United States maintains sanctions on Sudan because of its continued support for international terrorism, ongoing efforts to destabilize neighboring governments, and because of the prevalence of human rights violations, including slavery and the denial of religious freedom to the population of the country. Sanctions against Sudan have not been modified because Sudan has not taken sufficient steps to resolve the conflict in Darfur. The United States continues to consult with other countries regarding the humanitarian crisis in Darfur bilaterally and multilaterally, including through the United Nations.

Syria

The United States maintains controls in response to Syria's lack of concrete steps to end its support for terrorist groups, interdict the flow of foreign fighters destined for Iraq, refrain from interfering in Lebanon's internal affairs, and stop abusing the human rights of its citizens. Although many other countries concur that Syria's regional activities are destabilizing, few countries maintain controls similar to those implemented by the United States.

United Nations Security Council Arms Embargoes

Expected amendments to the EAR implementing UN arms embargoes and partial embargoes on the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, North Korea, Somalia, and Sudan will be consistent with UN objectives. The U.S. Government has received no significant objections to these UN Security Council-mandated controls.

4. *Economic Impact on United States Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives.

Certain Designated Persons

The Department of Commerce did not review any license applications for the particular persons designated by the Treasury Department in fiscal year 2011. The economic impact of these controls is presumably minimal. The Department of the Treasury maintains restrictions on activities of U.S. persons involving designated terrorist entities, proliferators, and those involved in civil unrest and suppression of basic rights and freedoms in Burma, which the Department of Commerce's controls augment.

Cuba

The U.S. Government requires authorization in the form of either a license or an Agricultural License Exception notice for the export or reexport to Cuba of most U.S.-origin commodities, technology, and software subject to the EAR. The number of licenses and notices that the Department of Commerce issued for exports or reexports to Cuba increased significantly from 1998 through 2002, due to changes in U.S. export policies made during the late 1990s. There has been a general decline in the number of licenses and notices issued since that time. U.S. export sanctions on Cuba have had some impact on U.S. industry. However, the authorized export of large volumes of agricultural commodities has somewhat reduced this impact.

In fiscal year 2011, the Department of Commerce approved 334 license applications, valued at over \$1.7 billion, for Cuba. There was an increase in the number and a decrease in the value of license applications approved in fiscal year 2011 in comparison to fiscal year 2010. Also during fiscal year 2011, the Department issued 108 notices of authorization valued at approximately \$2.6 billion under License Exception AGR. The Department of Commerce and reviewing agencies had no objections to these notices. The number of approved licenses and notices totaled 442, valued at over \$4.3 billion.

In fiscal year 2011, the Department returned without action 114 license applications, valued at over \$1.1 billion, and rejected 7 license applications, valued at over \$145,449. Errors and deficiencies were the primary reasons for the number of returned applications. The Department did not revoke any previously validated licenses during this period.

Other countries have not imposed restrictions on exports to Cuba comparable to those imposed pursuant to U.S. sanctions. According to the Central Intelligence Agency's (CIA) *World Factbook 2011*, Cuba imported an estimated \$10.45 billion in commodities in 2010 (the most recent year for which statistics are available), up from \$9 billion the year before. Leading Cuban imports included petroleum, food, machinery and equipment, and chemicals. Cuba's leading suppliers were Venezuela (35.2 percent), the People's Republic of China (11.7 percent), Spain (8.5 percent), and Brazil (4.6 percent). Imports from the United States decreased from 6.9 percent in 2009 to 4.1 percent in 2010.

Iran

The U.S. Government maintains a policy of denial for license applications for exports and reexports of items on the CCL to Iran, consistent with the provisions of the Iran-Iraq Arms Non-Proliferation Act of 1992 and the U.S. trade and investment embargo of 1995.

Consistent with Trade Sanctions Reform and Export Enhancement Act of 2000 (TSRA), the U.S. Government authorizes exports and reexports of food, agricultural equipment, medicine, and medical supplies and equipment to Iran. According to the U.S. Census Bureau statistics, total U.S. exports to Iran were valued at \$208 million in calendar year 2010, a decrease from \$280 million in 2009. The top U.S. commodities exported to Iran in 2010 were agricultural commodities, medical equipment, and pharmaceutical preparations.

Since 1997, the Department of the Treasury has had primary jurisdiction for the export and reexport of items subject to the EAR to Iran, and the Department of Commerce has sole jurisdiction for deemed exports or deemed reexports (releases of controlled U.S. technology or source code to Iranian nationals in the United States or abroad). The Department of Commerce approved 95 deemed export licenses for Iranian nationals during fiscal year 2011. Deemed export and reexport licenses reflect a nominal value of technology and source code released to Iranian national employees or students.

Prior to the sanctions, the United States competed with Iran's major trading partners in exports of industrial machinery, motor vehicles and auto parts, power generating machinery, measuring and controlling devices, computers, plastics and resins, and industrial organic chemicals. According to the *CIA World Factbook 2011*, Iran imported an estimated \$59 billion worth of industrial supplies, capital goods, foodstuffs and other consumer goods, and technical services in 2010. Iran's leading suppliers were the People's Republic of China (17.4 percent), United Arab Emirates (UAE) (16.7 percent), Germany (7.6 percent), South Korea (6.3 percent), Russia (5.7 percent), Turkey (4.8 percent), and Italy (4.2 percent).

The U.S. sanctions on Iran, while necessary to add pressure for Iran to comply with its nuclear nonproliferation obligations, have adversely affected U.S. industry. Immediately prior to the sanctions, U.S. exports to Iran totaled close to \$2.2 billion. However, the sanctions resulted in a substantial decline in U.S. exports to the country.

Iraq

Although the security situation and the presence of foreign fighters supporting the insurgency in Iraq, among other issues, continue to be of concern to the United States, the United States also fully supports Iraq's reconstruction and economic revival. Current licensing policy and requirements reflect the complexity and challenges of doing business in Iraq.

U.S. export controls specific to Iraq have had little impact on U.S. industry, because the primary focus of those controls is on arms sales to non-coalition forces. In 2010, according to the most recent U.S. Census Bureau statistics available, U.S. exports to Iraq were worth \$1.6 billion. In addition to agricultural commodities, other strong categories of U.S. exports to Iraq included military-related items, industrial engines and machines, vehicles and parts, and telecommunications equipment. Since licensing jurisdiction for Iraq was returned to the Department of Commerce in 2004, the majority of license applications received have been for equipment in support of or for use in reconstruction of Iraq and training activities for its police and military.

In fiscal year 2011, the Department approved 125 license applications for Iraq, valued at over \$620 million. The number and value of approvals in 2011 increased significantly from 97 approvals, valued at \$303 million, in 2010, likely due to additional reconstruction activities. The Department returned 30 license applications without action in 2011, valued at nearly \$7.6 million, primarily due to exporters submitting applications for transactions that did not require licenses. In 2011, the Department did not deny any license applications for Iraq.

According to the *CIA World Factbook 2011*, Iraq imported an estimated \$41.1 billion in commodities in 2010 (the most recent year for which statistics are available), down from an estimated \$55.4 billion in 2009. Leading Iraqi imports included food, medicine, and manufactures. Iraq's leading suppliers were Turkey (24.2 percent), Syria (18.6 percent), the People's Republic of China (14.4 percent), and the United States (6.6 percent).

North Korea

Consistent with United Nations Security Council Resolution 1718, a BIS license is required for the export or reexport to North Korea of all items subject to the EAR, with the exception of food and medicines designated as EAR99 (i.e., medicines subject to the EAR but not controlled on the CCL). As a result of the small size of the North Korean economy, U.S. export sanctions on North Korea have had a minimal impact on U.S. industry. Agricultural products and humanitarian goods are the primary U.S. exports to North Korea.

In fiscal year 2011, the Department approved 23 license applications, valued at \$38.4 million. The total license value in 2011 was much higher than in 2010 (\$3.1 million), primarily due to a small number of high-value humanitarian exports in 2009 and 2011. The Department of Commerce returned without action 14 license applications in 2011, valued at \$8.4 million. Applications were returned without action most often because the applicants accidentally selected North Korea instead of South Korea in the application system. The Department did not deny any license applications or revoke any previously validated licenses.

The CIA *World Factbook 2011* estimates that North Korean imports totaled \$3.1 billion in 2009 (the most recent year for which figures are available) with primary imports including petroleum, coking coal, machinery and equipment, textiles, and grain. North Korea's leading sources of imports in 2009 were the People's Republic of China (40.6 percent), Algeria (34.2 percent), and India (8.9 percent).

Persons Sanctioned by the State Department

The impact on U.S. industry of these controls is minimal as they target only certain persons listed on the Entity List (Supplement No. 4 to Part 744 of the EAR).

Sudan

The United States imposed sanctions on Sudan in 1997 in response to the Government of Sudan's support for international terrorism, efforts to destabilize neighboring governments, and the prevalence of human rights violations. Both the Departments of Commerce and the Treasury maintain license requirements for certain exports and reexports to Sudan of items subject to the EAR. The Department of the Treasury is solely responsible for licensing the export of agricultural commodities, medicines, and medical items not listed on the CCL under the provisions of TSRA, and is also responsible for licensing other items not listed on the CCL.

U.S. unilateral export sanctions on Sudan have had a minor impact on U.S. industry. Sudan was not a significant export market for the United States before sanctions were imposed in 1997. Moreover, a large proportion of exports to Sudan prior to the imposition of sanctions involved items designated as EAR99, which do not require a Department of Commerce license for export to Sudan.

On July 13, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 41046) amending the EAR consistent with the U.S. Government's July 9, 2011 formal recognition of the Republic of South Sudan (South Sudan) as a new country. BIS added South Sudan to the Commerce Country Chart. South Sudan is included in Country Group B, thus making exports to South Sudan eligible for certain License Exceptions. U.S. trade volumes with Sudan and with new South Sudan are both relatively small. BIS does not expect that the creation of South Sudan will significantly affect the limited impact that trade with Sudan currently has on U.S. industry.

Licensing volume and dollar value for exports to Sudan have fallen since the January 2011 referendum on self-determination for the region of southern Sudan, from 162 licenses valued at \$66.6 million in fiscal year 2010 to 123 licenses valued at \$49.0 million in 2011. In fiscal year 2011, the Department of Commerce approved 123 license applications for Sudan, valued at \$49.0 million. During the same period, 64 applications valued at \$37.5 million were returned without action. Most of the returned applications contained errors and deficiencies or were for

EAR99 items that did not require a BIS license for export to Sudan. During fiscal year 2011, the Department of Commerce denied one license application valued at approximately \$18,000. No licenses issued by the Department for export or reexport to Sudan were revoked during fiscal year 2011.

U.S. Census Bureau statistics show that in 2011, U.S. exports to Sudan were valued at \$115.6 million, and consisted primarily of agricultural exports. The *CIA World Factbook 2011* estimates that Sudan's total imports from all sources were valued at \$9.7 billion in 2010. Leading suppliers to Sudan were the People's Republic of China (21.7 percent), Saudi Arabia (7.7 percent), India (6.1 percent), and the UAE (5.7 percent). Leading imports were foodstuffs, manufactured goods, refinery and transport equipment, medicines and chemicals, textiles, and wheat.

Syria

The U.S. Government requires a license for the export and reexport to Syria of all U.S.-origin commodities, technology, and software subject to the EAR except for food and certain medicine designated as EAR99. Certain categories of items, particularly medical devices, telecommunications equipment, and parts and components intended to ensure the safety of civil aviation and the safe operation of commercial passenger aircraft are subject to case-by-case review based on the Presidential waiver exercised when the SAA was implemented. U.S. export sanctions on Syria have had a minimal impact on U.S. industry.

In fiscal year 2010, there was an increase in the number and in the dollar value of approved license applications related to the safety of civil aviation in Syria. The increase primarily resulted from an exceptional number of high dollar value license approvals for the overhaul or replacement of engines among Syria's fleet of commercial passenger aircraft. Some of these licenses represent a number of potential bidders seeking the same contract to do service work. Additionally, there was a sevenfold increase in the dollar value of approved license applications for telecommunications items, the majority of which were in support of the expansion and modernization of Syria's mobile telephone networks. Again, some licenses represent different potential bidders seeking the same contract.

FY 2011 continued the generally upward trend in licensing volume and dollar values, with 432 approved licenses valued at \$1.55 billion. Also during fiscal year 2011, the Department returned without action 108 license applications, valued at over \$256 million, and denied 9 license applications, valued at over \$6.3 million. The Department revoked four licenses related to servicing of VIP aircraft, and suspended nine licenses and a portion of a tenth in support of the overhaul of two long-range, high capacity commercial passenger aircraft belonging to Syria's national carrier Syrian Arab Airlines. These suspensions and revocations were in response to the

Government of Syria's egregious abuses of human rights beginning in the Spring of 2011, including the use of violence and torture, arbitrary arrests, and detentions of peaceful protesters.

Other countries have imposed limited sanctions against certain Syrian entities, but have not imposed comprehensive trade sanctions on Syria similar to those of the United States. According to the CIA *World Factbook 2011*, Syria imported an estimated \$15.4 billion in commodities in 2010. Leading Syrian imports include machinery and transport equipment, electric power machinery, food and livestock, metal and metal products, chemicals and chemical products, plastics, yarn, and paper. Syria's leading suppliers were Saudi Arabia (11.2 percent), the People's Republic of China (10.1 percent), Turkey (7.6 percent), the UAE (5.5 percent), Italy (5.5 percent), Russia (4.6 percent), Lebanon (4.4 percent), Egypt (4.3 percent), Iran (4.0 percent), and South Korea (4.0 percent).

United Nations Security Council Arms Embargoes

The UN currently maintains embargoes, or partial embargoes, on the export of certain arms and related materiel to the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, North Korea, Somalia, and Sudan. The Department of Commerce expects to implement these arms embargoes for purposes of the EAR through a regulation to be published in the *Federal Register*. The amendment is also expected to reflect the United Nations Security Council's termination of prohibitions on the sale or supply of arms and arms-related materiel to Rwanda and Sierra Leone, pursuant to United Nations Security Council Resolutions 1823 and 1940 respectively.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to effectively enforce these controls. Controls on exports to embargoed and sanctioned countries and persons, including those discussed in this Chapter, raise a number of challenges. These include the need to concentrate limited resources on priority areas, develop new strategies to limit reexport violations, strengthen the cooperative relationship with other law enforcement agencies in the United States and overseas, and maintain a consistent outreach effort to help limit U.S. business vulnerability. Overall, the sanctions are generally understood and supported by the U.S. public. Voluntary cooperation from most U.S. exporters is common.

The Department conducted a number of enforcement actions regarding noncompliance with these export controls during fiscal year 2011. For example:

Transshipment of Oncology System to Iran

On September 23, 2011, Bahram Maghazehe was denied export privileges under the EAR for six years based on his actions to evade the EAR by working with a U.S. company to arrange for the export without a license through the United Arab Emirates to Iran of a Varian Ximatron

oncology system, a medical simulator for treatment planning of radiotherapy, which was subject to the EAR.

Export of Electronics to a Specially Designated National

On January 21, 2011, in U.S. District Court in the Southern District of Florida, Ulises Talavera was sentenced to six months of home detention and one year probation; Talavera's company, TransAmerica Express, was sentenced to three years of probation and ordered to forfeit \$100,000; Khalid Safadi was sentenced to six months of home detention, one year of probation and ordered to forfeit \$80,000; and Safadi's company, Cedar Distributors Inc. was sentenced to three years of probation. On January 4, 2011, also in U.S. District Court in the Southern District of Florida, Emilio Gonzalez Niera was sentenced to six months of home detention and one year of probation; and Niera's company, Jumbo Cargo, was sentenced to one year of probation. The sentences were related to guilty pleas entered into on September 15, October 1, and October 20, 2010, by the defendants. Niera, Jumbo Cargo, Safadi, Cedar Distributors, Talavera, and TransAmerica Express each pled guilty to conspiracy to illegally supply electronics valued at over \$500,000 to companies located at the Galeria Page shopping center in Ciudad del Este, Paraguay. According to OFAC, Galeria Page serves as a source of fundraising for Hezbollah and is managed and owned by Hezbollah members. Galeria Page is on the OFAC list of Specially Designated Nationals, prohibiting any transactions or dealings with U.S. persons. The conspiracy involved falsifying invoices, Shipper's Export Declarations and other export control documents to conceal the final destination of the shipments. On February 23, 2010, Niera, Safadi, and Talavera were arrested by Special Agents from OEE and U.S. Immigration and Customs Enforcement.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I. Comments from the Department's seven Technical Advisory Committees are solicited on a regular basis and are not specific to this report.

D. Consultation with Other Countries

The U.S. Government has made reasonable efforts to achieve the purposes of the U.S. embargoes and sanctions through negotiations with other countries, through international fora, and through the United Nations, as outlined in the specific country descriptions that follow.

Certain Designated Persons

The United States cooperates with allies and partners and shares information on the activities of designated terrorist entities. It is expected that strong international support for the U.S. fight against terrorism will further facilitate dialogue on foreign export control expansion.

Cuba

The U.S. Government has worked diligently with other nations, especially countries in Europe and Latin America, to resolve disputes that arise as a result of the U.S. embargo. Differences remain between the United States and other countries concerning the best method to encourage democracy and human rights. However, many nations share with the United States the ultimate goal of a free, peaceful, democratic, and market-oriented Cuba.

Iran

The United States has an ongoing dialogue with its allies and partners on Iran's activities, particularly the permanent members of the United Nations Security Council and Germany (P5+1), as well as other members of the United Nations Security Council, the IAEA Board of Governors, and like-minded countries. The United States continues to work with other states to prevent Iran's acquisition of a nuclear weapons capability by pursuing a dual track strategy that includes pressure on Iran to comply with its international obligations and offers of engagement. The United States is also working with the IAEA to ensure that the agency has the capabilities it needs to verify Iran's compliance with its safeguards agreement, work with Iran to resolve the outstanding questions and issues regarding Iran's nuclear program, and monitor UN Security Council requests that Iran suspend its proliferation-sensitive nuclear activities as required in UN Security Council Resolutions 1737, 1747, 1803, and 1929. The IAEA Director General released a very detailed report on the possible military dimensions (PMD) of Iranian nuclear program in November 2011, which prompted the IAEA Board of Governors to overwhelmingly adopt a resolution repressed deep concern over the PMD issue and Iran's lack of cooperation with the IAEA and failure to comply with its international nuclear obligations.

Iraq

Prior to Operation Iraqi Freedom and the lifting of the embargo on Iraq, the United States maintained an ongoing dialogue on Iraq with other United Nations member states, as well as separately, with its allies and partners. Since the lifting of the embargo, the United States has continued discussions with many other countries on both a bilateral and multilateral basis.

North Korea

The United States continues multilateral and bilateral discussions with various countries, including the People's Republic of China, Japan, the Republic of Korea (South Korea), and Russia on the ongoing issues concerning the nuclear and ballistic missile-related activities of North Korea. The United States is working with these and other countries to ensure effective

implementation of sanctions under UN Security Council Resolutions 1718 and 1874, and will continue to work with these countries to achieve the verifiable denuclearization of the Korean Peninsula.

Persons Sanctioned by the State Department

The United States consults on a regular basis with other countries on proliferation and trafficking-related issues. Although other countries share U.S. concerns regarding the diversion of goods to unauthorized end-users or end uses, few countries maintain controls similar to those implemented by the United States, beyond those entities included in UNSCRs.

Sudan

The United States continues to consult with the United Nations, in addition to other countries and entities in both bilateral and multilateral forums, regarding the internal conflict in Sudan and to address the humanitarian needs of the population.

Syria

The United States is in constant communication with other countries regarding the Syrian Government's interference in Lebanon and its support for terrorism, the flow of foreign fighters through Syria destined for Iraq, Syrian nuclear, missile, and chemical/biological programs, and its abuse of its own citizens. Additionally, the United States has communicated its concerns to the Government of Syria directly and forcefully through the U.S. Embassy in Syria and the Syrian Ambassador in Washington.

United Nations Security Council Arms Embargoes

Most countries support international efforts to stabilize affected countries in order to prevent further ethnic conflict and regional instability, including through compliance with the United Nations arms embargoes.

CHAPTER 6

Toxic Chemicals, Chemical Precursors, and Associated Equipment, Technology, and Software (Sections 742.2, 742.18, 744.4, 744.6, and 745)¹⁷

Export Control Program Description and Licensing Policy

The U.S. Government maintains export controls on certain chemicals, equipment, materials, software, technology, and entire plants to further U.S. foreign policy and prevent the proliferation and use of chemical weapons. The U.S. Government implements these controls in coordination with the Australia Group (AG), an informal forum of 40 nations and the European Commission that is dedicated to halting the proliferation of chemical and biological weapons. (See Appendix II for a complete list of AG members.) Also, the United States fulfills its obligations under the Chemical Weapons Convention (CWC or the Convention) by maintaining controls on certain chemicals.¹⁸

Australia Group Controls

The AG was formed in 1985 when the United States and 14 other nations agreed to enhance and harmonize controls on chemicals that could be used to produce chemical weapons. Since then, the AG has expanded its membership and has expanded its export control list to cover toxic biological agents and dual-use chemical and biological production related equipment and technologies. Member countries use the AG common control list and guidelines as a basis for developing and imposing their domestic export controls. The AG has a “no-undercut” policy, which requires consultation with another AG partner that had previously denied an AG-controlled item if a proposed transaction is essentially identical.

¹⁷ Chapter 7 of this report addresses U.S. biological controls.

¹⁸ The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the “Chemical Weapons Convention” or CWC) was ratified by the United States on April 25, 1997, and entered into force on April 29, 1997.

License Requirements and Licensing Policy for AG Controls

The licensing requirements for chemicals, equipment, materials, software, technology, and entire plants imposed in accordance with AG commitments are noted below. There are 20 entries on the CCL that are subject to chemical controls.

The U.S. Government requires a license for the export to all destinations other than AG member countries of chemical weapons precursor and intermediate chemicals, as identified on the AG common control list, technology for the development, production, and disposal of such items, relevant process control software, and the facilities designed to produce such chemicals.

The U.S. Government also requires a license for the export to all destinations, other than AG member countries, of certain chemical manufacturing facilities and equipment, toxic gas monitoring systems and detectors that can be used in the production of chemical warfare agents, and the technology for the development, production, and disposal of such items. The countries to which these licensing requirements apply are listed in Column CB2 of the Commerce Country Chart, Part 738, Supplement No. 1 of the Export Administration Regulations (EAR). These licensing requirements also apply to the export of these items to designated terrorist-supporting countries.

In addition, the U.S. Government also controls all items subject to the EAR because of chemical or biological end use or end-user concerns as part of the Enhanced Proliferation Control Initiative (EPCI).

- The U.S. Government requires a license for the export of any commodity, technology, or software to all destinations, worldwide, including to AG member countries, when the exporter knows that it will be used in the design, development, production, stockpiling, or use of chemical weapons. In addition, the U.S. Government may inform an exporter or reexporter that a license is required due to an unacceptable risk that the items will be used in, or diverted to, chemical weapons proliferation activities anywhere in the world.
- No U.S. person may knowingly support such an export, reexport, or transfer without a license. “Support” is defined as any action, including financing, transportation, or freight forwarding that facilitates the export, reexport, or transfer of these items.
- In addition, no U.S. person may, without a license, perform any contract, service, or employment knowing that it will directly assist the design, development, production, stockpiling, or use of chemical weapons in, or by, any country or destination worldwide.

The Department of Commerce, in coordination with the Departments of Defense, Energy, and State, reviews applications for licenses to export AG-controlled items on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of chemical weapons. For licenses to export AG-controlled items to the People's Republic of China, Section 742.2 of the EAR imposes an additional review standard – whether the items will make a direct and significant contribution to China's military capabilities. When the Department of Commerce determines, after interagency review, that an export will make a contribution meeting these criteria, the Department will deny the license.

Trade Restrictions under the Chemical Weapons Convention

The CWC, which entered into force in April 1997, bans the development, production, acquisition, stockpiling, retention, use, or transfer of chemical weapons, and establishes an extensive verification regime. The CWC Annex on Chemicals groups specified chemicals, including toxic chemicals and chemical precursors, into three "Schedules." Chemicals are listed in a schedule based on factors specified in the Convention, such as the level of toxicity and other properties that enable their use in chemical weapons applications.

The toxic chemicals and precursors on Schedule 1 were previously developed, produced, stockpiled or used as chemical weapons, or pose a high risk to the object and purpose of the CWC based on the dangers identified in the Convention and have little, if any, use in legitimate commercial applications. The toxic chemicals and precursors on Schedule 2 pose a significant risk to the object and purpose of the CWC, in light of the dangers identified in the Convention, and are not produced in large commercial quantities for legitimate purposes. The toxic chemicals and precursors on Schedule 3 have been produced or used as chemical weapons or pose a risk to the object and purpose of the CWC, based on the dangers identified in the CWC, and are produced in large commercial quantities for legitimate purposes.

The Department of State, under the International Traffic in Arms Regulations (ITAR), controls exports of the chemical warfare agents deemed to have military application, which by their ordinary and direct chemical action produce a powerful physiological effect. The Department of State controls all CWC Schedule 1 chemicals except ricin and saxitoxin, which are under the control of the Department of Commerce. The Department of Commerce controls all Schedule 2 chemicals except six chemical precursors that are controlled through the ITAR and therefore fall under the jurisdiction of the Department of State. All Schedule 3 chemicals are controlled by the Department of Commerce.

License Requirements and Licensing Policy for CWC Controls

The following is a summary of the export restrictions and licensing requirements for chemicals subject to the EAR that are imposed to fulfill CWC treaty obligations:

A. CWC Schedule 1 chemicals may only be exported or reexported to CWC States Parties, and a license is required. Additionally, there are advance notification and annual reporting requirements for such exports. A license is also required for the export or reexport of Schedule 2 chemicals to countries that are not States Parties to the CWC. Exports of Schedule 3 chemicals destined to States not Party to the CWC require a license unless the exporter obtains from the consignee an End-Use Certificate (issued by the government of the importing country) prior to exporting the Schedule 3 chemicals and submits it to BIS. Reexports of Schedule 3 chemicals require a license when they are reexported from a State not Party to the CWC to any other State not Party to the CWC.

B. Export license applications for Schedule 1 chemicals to CWC States Parties are reviewed on a case-by-case basis. The Department of Commerce approves exports of Schedule 1 and Schedule 2 chemicals to CWC States Parties only for purposes not prohibited by the Convention. This is the underlying basis for the policy of denial for applications to export Schedule 1 and Schedule 2 chemicals to States not Party to the CWC. Additionally, there is a policy to deny applications to export Schedule 3 chemicals to States not Party to the CWC unless the importing country provides an End-Use Certificate. In addition, the U.S. Government reviews exports and reexports of technology related to the development and production of mixtures containing PFIB, phosgene, cyanogen chloride, and hydrogen cyanide on a case-by-case basis.

Summary of 2011 Changes

On April 20, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 22017) to implement the understandings reached at the June 2010 plenary meeting of the Australia Group (AG). This final rule amended Export Control Classification Number (ECCN) 2B350 (Chemical manufacturing facilities and equipment) on the CCL to clarify the meaning of the terms “fluoropolymers” and “ferrosilicon” in connection with the types of materials from which certain chemical manufacturing equipment is made.

Analysis of Control as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

The purpose of these controls is to support the efforts of the AG to halt the development and production of chemical weapons and to comply with international obligations under the CWC.

In addition, these controls implement certain measures specified in Executive Order 12735 of November 16, 1990, its successor, Executive Order 12938 of November 14, 1994, and the EPCI announced on December 13, 1990. In so doing, the controls provide the U.S. Government with the authority to regulate the export or reexport of any item from the United States when there is a significant risk that it will be used for chemical weapons proliferation purposes.

The AG works to further nonproliferation objectives through harmonizing export controls, exchanging information, and through other diplomatic means. In addition to furthering the objectives of the AG, these controls support U.S. compliance efforts with the CWC. To ensure that States Parties to the Convention do not transfer chemicals that could assist other states to acquire chemical weapons, the CWC requires that States Parties restrict the export of certain chemicals listed in the CWC's Annex on Chemicals. The controls also support the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or other Gases, and of Bacteriological Methods of Warfare.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. Many of the items covered by these controls have commercial uses and are widely available from foreign sources. Some of the major sources of these items are located in industrialized countries that are members of the AG and States Parties to the CWC. Although it is not expected that export controls alone can prevent the proliferation of chemical weapons, these controls strengthen U.S. and like-minded states' efforts to stem the spread of such weapons and continue to be a significant part of the overall nonproliferation strategy of the United States.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. The U.S. Government has a strong interest in remaining at the forefront of international efforts to stem the proliferation of chemical weapons. These controls are compatible with the multilateral export controls for chemicals and related equipment and technology agreed to by the AG. Moreover, the U.S. Government has binding international obligations under the CWC: to refrain from developing, producing, acquiring, stockpiling, retaining, using or engaging in military preparations for the use of chemical weapons; to refrain from assisting, encouraging or inducing anyone to engage in prohibited activity; preventing anyone from engaging or assisting in prohibited chemical weapons activities; and implementing national legislation to penalize prohibited activities and to control certain chemical exports.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. The U.S. Government continues to discuss chemical export controls with countries outside of the AG to advance the goals of nonproliferation. The governments of some developing countries claim that AG export controls discriminate against less industrialized nations by depriving them of goods and assistance in the field of chemical technology. The United States considers that these assertions are incorrect. In fact, in international forums, the U.S. Government has sought to dispel this perception by clarifying the purpose of the controls and by demonstrating that the U.S. Government denies few export license requests for shipment to developing countries.

4. *Economic Impact on United States Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives.

In fiscal year 2011, the Department of Commerce approved 3,387 license applications, valued at \$1,361,463,658 for the export or reexport of chemical precursors, equipment, and related technology. The majority of the value of these approvals (71 percent) was for precursor chemicals controlled under ECCN 1C350, which are chemicals that have many commercial uses. The remaining value of these approvals (29 percent) was for chemical processing equipment controlled under ECCN 2B350 and monitoring equipment controlled under ECCN 2B351, which covers equipment with many commercial uses. The Department denied 3 license applications valued at \$89,501, and returned without action 192 license applications valued at \$103,132,936. The primary reason for returning applications was for insufficient information about the transaction. The actual trade in these controlled commodities is significantly greater than the value of the license applications submitted because exporters may export many of these commodities to AG member countries without a license.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. The size, dispersion, diversity, and specialized nature of the dual-use chemical industry make detecting and investigating potential violations difficult for enforcement personnel. Challenges include distinguishing commercial procurement from chemical weapons-related transactions, and establishing appropriate commodity thresholds for targeting and tracking exports and reexports for verification of end uses and end-users. It is also difficult to detect and investigate cases under the “knowledge” standard set by the EPCI “catch-all” provision and some countries have different standards for “catch-all,” which complicates law enforcement cooperation. In addition, enforcement officers may be exposed to personal safety risks when seizing and inspecting chemical materials.

To meet the challenge of effective enforcement of these controls, the Department of Commerce has directed resources toward preventive enforcement, in addition to continued efforts to pursue all leads provided by intelligence, industry, and other sources on activities of concern. Also, the Department of Commerce's extensive outreach program educates companies about export controls related to chemical products and helps prevent the illegal export of dual-use products that can be used to make chemical weapons. In cases where unlicensed shipments of chemical materials have already taken place, the Department of Commerce has found that, as in other export control enforcement cases, analysis of commercial shipping documentation can lead to successful investigations and prosecutions.

The Department conducted a number of enforcement actions regarding noncompliance with these export controls, including the recent example summarized below:

Violations of the Chemical Weapons Convention Regulations (CWCR) - On March 24, 2011, Geomet Technologies, L.L.C. was ordered to pay a civil penalty of \$35,000 to settle allegations that the company failed to declare storage and consumption of scheduled chemicals, and failed to establish and maintain records related to the declared consumption and subsequent storage of scheduled chemicals, as required by the CWCR.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I.

The Department of Commerce interacts with the chemical industry in a number of ways, including with individual companies seeking export licenses, through technical advisory committees (TACs), and through trade associations. BIS consults regularly with exporting firms on proposed export transactions and marketing plans to facilitate the thorough, yet prompt, review of export license applications. Through the TACs, the Department of Commerce keeps industry representatives abreast of proposals for the review of items on the CCL and gives them the opportunity to provide technical input. Comments from the Department's seven TACs are solicited on an ongoing basis and are not specific to this report.

The Department of Commerce works with chemical industry associations including the American Chemistry Council and the Society of Chemical Manufacturers and Affiliates, and with government agencies such as the Departments of State, Defense, Energy and the Federal

Bureau of Investigation, to gain valuable input regarding CWC implementation and to meet the United States' CWC responsibilities.

D. Consultation with Other Countries

These controls are consistent with the multilateral export control criteria of the AG, which includes many of the world's major chemical producers and traders. As such, the controls have been agreed through negotiations with the member countries of the AG. In addition, a number of non-AG countries, including Russia and China, have taken steps to adopt AG-type controls. An important element of the AG's efforts to curb the development of chemical weapons is contacting non-members to encourage them to observe similar export controls. The U.S. Government continues to encourage harmonization of export control provisions among AG participants to ensure a level playing field for U.S. exporters.

E. Alternative Means

The U.S. Government continues to address the problem of the proliferation of chemical weapons on a number of fronts. Direct negotiations with countries intent on acquiring chemical weapons are not likely to prevent the use of controlled materials in such activities, nor are such negotiations likely to affect the behavior of these countries.

Alternative means to curtail the acquisition and development of chemical warfare capabilities, such as diplomatic negotiations, do not obviate the need for controls. Examples of additional means that the U.S. Government has used and will continue to use, in an attempt to curb the use and spread of weapons of mass destruction, include:

- **Sanctions:** U.S. laws such as the Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Pub. L. 102-182, Title III, Dec. 4, 1991, 105 Stat. 1245), the Iran-Iraq Arms Non-Proliferation Act of 1992 (Pub. L. 102-484) (Title XVI), the Iran Nonproliferation Act of 2000 (Pub. L. 106-178), the Iran Nonproliferation Amendments Act of 2005 (Pub. L. 109-112), and the North Korea Nonproliferation Act of 2006 (Pub. L. 109-353) provide for the imposition of sanctions on foreign entities and countries for certain kinds of chemical and biological weapons-related activity. The U.S. Government has imposed sanctions under these authorities on certain entities for chemical weapons-related activities.
- **Universality of the CWC:** The CWC imposes a global ban on the development, production, stockpiling, retention, and use of chemical weapons by States Parties and prohibits States Parties from assisting, encouraging, or inducing a non-State Party to engage in such activities. The CWC also prohibits the direct or indirect transfer of

chemical weapons, restricts trade in certain chemicals to States not a State Party to the CWC, and has created an international organization to monitor the destruction of chemical weapons and the production, use, and trade of toxic chemicals and chemical precursors in and among States Parties to the CWC.

As part of its CWC implementation activities, the Department of Commerce also collects industry reports regarding the production, processing, consumption, import, and export of toxic chemicals and chemical precursors for purposes not prohibited by the CWC (e.g., industrial, agricultural, and other peaceful purposes), which are forwarded to the Organization for the Prohibition of Chemical Weapons (OPCW) as part of the U.S. declaration. The Department of Commerce also acts as the lead, host, and escort for OPCW inspection teams as they inspect certain U.S. chemical facilities to verify that activities are consistent with the information provided in the U.S. declaration.

F. Foreign Availability

Past reviews conducted by the Department of Commerce revealed that a wide range of AG chemical precursors and production equipment are available from non-AG countries. Non-AG suppliers of precursors and related production equipment include Brazil, Chile, Colombia, India, Mexico, China, South Africa, countries of the former Soviet Union, Taiwan, and Thailand. However, almost all non-AG suppliers have become States Parties to the CWC and will take steps under this treaty to prevent chemical weapons development and production. Moreover, successful outreach by AG countries has led to most non-AG suppliers adopting export controls that closely mirror the AG's. As such, the U.S. Government has made efforts through its membership in both the AG and CWC to secure the cooperation of foreign governments to control the foreign availability of chemical precursors and production equipment.

CHAPTER 7

Biological Agents and Associated Equipment and Technology (Sections 742.2, 744.4 and 744.6)¹⁹

Export Control Program Description and Licensing Policy

The U.S. Government controls the export of certain microorganisms, toxins, biological equipment, and related technology to further U.S. foreign policy interests in opposing the proliferation and use of biological weapons. The U.S. Government implements these export controls multilaterally in coordination with the Australia Group (AG), a forum of 40 nations and the European Commission, cooperating to halt the proliferation of chemical and biological weapons. The U.S. Government also supports international efforts to secure a total ban on biological weapons in compliance with the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC).²⁰

Australia Group Controls

The AG was formed in 1985 when the United States and 14 other nations agreed to enhance and harmonize controls on chemicals that could be used to produce chemical weapons. Since then, the AG has expanded its membership and has expanded its export control list to cover toxic biological agents and dual-use chemical and biological production related equipment and technologies. AG member countries use the AG common control list and guidelines as a basis for developing and imposing their domestic export controls. The AG has a “no-undercut” policy, which requires consultation with another AG partner that had previously denied an AG-controlled item if a proposed transaction is essentially identical.

¹⁹ Chapter 6 of this report addresses U.S. chemical controls.

²⁰ The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC) was signed in 1972 and ratified by the United States in 1975.

License Requirements and Licensing Policy

The licensing requirements for biological agents, related equipment, and technology, imposed in accordance with AG commitments, are noted below. There are 12 entries on the CCL that are subject to biological controls.

A. The U.S. Government requires a license for the export to all destinations of certain human pathogens, zoonoses, toxins, animal pathogens, genetically modified microorganisms and plant pathogens, and the technology for their production and disposal.

The U.S. Government requires a license for export to all destinations, other than AG member countries, of certain dual-use equipment and materials that can be used to produce biological agents and related technology. The countries for which this licensing requirement applies are those indicated in Column CB2 (Chemical and Biological Weapons, Column 2) of the Commerce Country Chart, Supplement No. 1 to Part 738 of the Export Administration Regulations (EAR), as well as the sanctioned destinations identified in Part 746 of the EAR.

The U.S. Government requires a license for the export to countries listed in Country Group D:3 of the EAR for medical products identified in Export Control Classification Number (ECCN) 1C991.d.

The U.S. Government also controls items subject to the EAR because of biological end-use or end-user concerns. These controls are part of the Enhanced Proliferation Control Initiative (EPCI), announced by President George H.W. Bush on December 13, 1990.

- The U.S. Government requires a license for the export of any commodity, technology, or software when the exporter knows that it will be used in the design, development, production, stockpiling, or use of biological weapons in, or by, any country anywhere in the world, including AG member countries. In addition, the U.S. Government may inform an exporter or reexporter that a license is required due to an unacceptable risk that the items will be used in, or diverted to, biological weapons proliferation activities anywhere in the world.
- No U.S. person may knowingly support such an export, reexport, or transfer without a license. “Support” is defined as any action, including financing, transportation, or freight forwarding that facilitates the export, reexport, or transfer of these items.
- In addition, no U.S. person may perform, without a license, any contract, service, or employment knowing that it will directly assist the design, development, production, stockpiling, or use of biological weapons in, or by, any destination or country anywhere in the world.

B. The Department of Commerce, in coordination with the Departments of Defense, Energy, and State, reviews applications for licenses on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of biological weapons. When the Department of Commerce determines as a result of an interagency review that an export will make such a contribution, it will deny the application. For licenses to export AG-controlled items to the People's Republic of China, Section 742.2 of the EAR imposes an additional review standard – whether the items will make a direct and significant contribution to China's military capabilities. When the Department of Commerce determines, after interagency review, that an export will make a contribution meeting these criteria, the Department will deny the license.

Summary of 2011 Changes

On April 20, 2011, the Department of Commerce published a final rule in the *Federal Register* (76 FR 22017) amending the EAR to implement the understandings reached at the June 2010 plenary meeting of the Australia Group (AG). Specifically, this rule revised the listing for “*Chlamydia psittaci*” in ECCN 1C351.c.7 by updating the name of the bacterium to read “*Chlamydophila psittaci* (formerly known as *Chlamydia psittaci*).” This rule also revised the listing for the “Lyssa virus” in ECCN 1C352.a.8 by adding a parenthetical phrase to indicate that the virus is also known as “Rabies.”

On September 12, 2011, the Department of Commerce published a final rule amending the EAR to implement a proposal adopted under the AG intersessional approval procedures in the *Federal Register* (76 FR 56099). Specifically, this rule amended ECCN 1C351.a to remove the “South American haemorrhagic fever” and “Pulmonary and renal syndrome-haemorrhagic fever viruses” and replaced them with ten viral causative agents for the fevers. This rule also alphabetized and renumbered the list of viruses in ECCN 1C351.a to conform to the format in the AG List of Biological Agents. Consistent with this AG change, this rule alphabetized and renumbered the list of bacteria and “toxins” in ECCN 1C351.c and .d to assist exporters to more easily identify these bacteria and “toxins.” In addition, this rule made conforming changes in Section 740.20, Section 742.18, and ECCN 1C991 related to the items that were alphabetized and renumbered in ECCN 1C351. Finally, this rule amended Section 740.20(b)(2)(vi), which describes certain limitations on the use of License Exception STA, to add several toxins that were inadvertently omitted by the License Exception STA rule that BIS published on June 16, 2011 (76 FR 35276).

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

The controls described above are intended to prevent a U.S. contribution to the proliferation and illegal use of biological weapons and to U.S. foreign policy objectives that seek to inhibit the proliferation of biological weapons. The controls also provide the regulatory authority to stop the export of any item from the United States when there is a significant risk that it will be used for biological weapons purposes. In addition, the controls implement certain measures directed in Executive Order 12735 of November 16, 1990; its successor, Executive Order 12938 of November 14, 1994; and the EPCI, announced on December 13, 1990.

The U.S. Government implements these controls in coordination with the AG. The AG works to accomplish multilateral objectives through harmonizing export controls, exchanging information, and other diplomatic means. In addition, these controls demonstrate the commitment of the United States to its obligation under the BWC not to develop, produce, stockpile, acquire, or retain biological agents, weapons, equipment, or the means of delivery for warfare purposes, or to assist others in such activities. The controls also advance the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or other Gases and of Bacteriological Methods of Warfare (Geneva Protocol).

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations with its partners in the AG and in the BWC. The Secretary has made this determination despite the existence of certain factors, including availability of these items from other sources, which challenge the full achievement of foreign policy goals. These controls affirm U.S. opposition to the development, proliferation, and use of biological weapons and serve to distance the United States from such activities.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. The U.S. Government has a strong interest in remaining at the forefront of international efforts to stem the proliferation of biological weapons. Also, these controls are compatible with the multilateral export controls for biological materials agreed to by the AG.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. The U.S. Government continues to discuss biological export controls with countries outside of the AG to advance the goals of nonproliferation.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to United States foreign policy objectives.

In fiscal year 2011, the Department of Commerce approved 1,184 license applications, valued at \$73,031,460 for the export or reexport of biological agents, vaccines and equipment. The majority of the value of these approvals (57 percent) was for biological processing and handling equipment controlled under ECCN 2B352. The Department denied two license applications valued at \$4,160 and returned without action 68 license applications valued at \$ 5,058,415. The primary reason for returning applications was for insufficient information about the transactions.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to enforce these controls effectively. Enforcing controls on biological weapons-related materials poses problems similar to the enforcement of chemical controls, but with additional difficulties. Biological materials are microscopic organisms that require technical expertise and specialized facilities to identify and to handle. Because of their size, biological agents can often be concealed and transported with ease.

To meet the challenge of effectively enforcing these proliferation controls, the Department of Commerce focused resources toward preventive enforcement. Commerce personnel conduct an extensive, ongoing outreach program to educate industry about export controls. The program is designed to increase industry's awareness of suspect orders for products or equipment that could be used for biological weapons proliferation. In cases where unlicensed shipments of biological materials have already taken place, the Department of Commerce has found that, as in other export control enforcement cases, analysis of commercial shipping documentation can lead to successful investigations and prosecutions.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from the public on the effectiveness of U.S. foreign policy-based export

controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I.

Biological products exporters include commercial firms as well as academic and government entities. The Department of Commerce maintains ongoing interaction with individual exporters, TACs, and trade associations to discuss proposed export transactions and marketing plans to facilitate the thorough, yet prompt, review of export license applications. Through the TACs, the Department keeps industry representatives abreast of licensing proposals for items on the control list and gives them the opportunity to provide technical input. Comments from the Department's seven TACs are solicited on an ongoing basis and are not specific to this report.

D. Consultation with Other Countries

Recognizing that multilateral coordination of export controls and enforcement actions is the most effective means of restricting proliferation activities, the U.S. Government coordinates its controls on biological items with other countries in the AG.

The U.S. Government continues to address the problem of biological weapons proliferation through a variety of international forums and urges other AG members to pursue export control cooperation with non-members on a bilateral or regional basis.

E. Alternative Means

The U.S. Government continues to address the problem of biological weapons proliferation on a number of fronts. Direct negotiations with countries intent on acquiring biological weapons are not likely to prevent the use of U.S.-origin materials for such activities and negotiations are unlikely to affect the behavior of these countries.

Alternative means to curtail the acquisition and development of biological warfare capabilities, such as diplomatic negotiations, do not obviate the need for controls. The following examples demonstrate additional means that have been, and will continue to be, used in an attempt to curb the use and spread of weapons of mass destruction:

- Regulations issued by the Public Health Service (42 CFR Part 72) pursuant to the Antiterrorism and Effective Death Penalty Act of 1996 (Sec. 511 of Pub. L. 104-132, April 24, 1996, 110 Stat. 1214) place additional shipping and handling requirements on laboratory facilities that transfer or receive select infectious agents capable of causing substantial harm to human health.

- The Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Pub. L. 102-182, Title III, December 4, 1991, 105 Stat. 1245), the Iran-Iraq Arms Non-Proliferation Act of 1992 (Pub. L. 102-484) (Title XVI), the Iran Nonproliferation Act of 2000 (Pub. L. 106-178), the Iran Nonproliferation Amendments Act of 2005 (Pub. L. 109-112), and the North Korea Nonproliferation Act of 2006 (Pub. L. 109-353) provide for the imposition of sanctions on foreign persons or countries for certain kinds of chemical and biological weapons-related activity. The U.S. Government has imposed sanctions under these authorities on certain entities for chemical and biological weapons-related activities.

The negotiations and alternative means undertaken by the U.S. Government demonstrate that it has made reasonable efforts to achieve the purposes of the controls; however, these actions have not had results that are as effective as the maintenance and renewal of the controls.

F. Foreign Availability

Most of the AG-controlled biological agents, and related equipment to produce them, are available from many sources (biological agents are, in fact, endemic). Notwithstanding the difficulties related to controlling these items effectively, the United States and its AG partners consider it necessary to maintain controls in order to stem shipments to potential weapons developers. Foreign availability is a factor considered by the AG member countries in their coordination of controls, though many non-AG suppliers model their own export controls on the AG's.

CHAPTER 8

Missile Technology Controls (Sections 742.5 and 744.3)

Export Control Program Description and Licensing Policy

The U.S. Government maintains export controls on certain equipment, materials, software, and technology to further the U.S. foreign policy of stemming the proliferation of missiles capable of delivering weapons of mass destruction (WMD). The U.S. Government implements these controls in coordination with the members of the Missile Technology Control Regime (MTCR), an informal political arrangement of 34 nations that cooperate to halt the proliferation of such missiles. (See Appendix II for a complete list of MTCR members.) Of note, several other countries, including India, Israel, Macedonia, Romania, and Slovakia, unilaterally adhere to the MTCR Guidelines.

Section 1512 of the National Defense Authorization Act for Fiscal Year 1999 permits the export to the People's Republic of China (PRC) of "missile-related equipment or technology," as defined in Section 74 of the Arms Export Control Act, only if the President certifies to Congress that (1) the export is not detrimental to the United States space launch industry and (2) the equipment or technology to be exported, including any indirect technical benefit that could be derived from the export of the items, will not measurably improve the missile or space launch capabilities of the PRC. In 2009, the President delegated the authority to make such certifications to the Secretary of Commerce. See Presidential Determination No. 2009-31 of September 29, 2009 (74 FR 50913 (Oct. 2, 2009)). Decisions whether to make such certifications, however, continue to be made by means of an interagency process.

Missile Technology Control Regime Controls

On April 16, 1987, the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom created the MTCR to limit the proliferation of missiles capable of delivering nuclear weapons. Since that time, the number of MTCR Partners has increased to 34 countries. Member countries agreed to further expand the MTCR controls in 1993 to include missile delivery systems for all types of WMD. The MTCR Equipment, Software, and Technology Annex lists missile-related items controlled pursuant to the MTCR Guidelines. It is divided into two categories. Category I items include complete missile systems, complete subsystems, production facilities, production equipment, and associated software and technology for missile systems capable of delivering at least a 500 kilogram (kg) payload to at least a 300 kilometer (km) range.

Category II items include materials, components, and production and test equipment associated with Category I items, as well as missile systems, major subsystems, production facilities, and production equipment for missile systems with a range equal to or greater than 300 km, regardless of payload.

License Requirements for MTCR Controls

The Department of Commerce is responsible for administering controls on manufacturing equipment for Category I items and all dual-use items in Category II. The MTCR Guidelines and the Equipment, Software, and Technology Annex form the basis for U.S. missile technology controls, providing guidance for licensing policy, procedures, review factors, and standard assurances on missile technology exports.

Approximately 120 entries on the CCL are subject to missile technology controls. License applications for Category I items are subject to a strong presumption of denial regardless of purpose, and license applications for the export, reexport or transfer (in-country) of production facilities for Category I items will be denied. The Department will approve the export of Category II items only after a case-by-case review consistent with U.S. law, policy, regulations, and international nonproliferation commitments. The United States observes the multilateral commitment to honor the denial of licenses for MTCR Annex items by other MTCR members and to support such denials through a “no undercut” policy. This policy enhances efforts to prevent missile proliferation and helps to establish a level commercial playing field within the regime.

In summary, the licensing requirements and policy for missile technology controls described in Sections 742.5 and 744.3 of the Export Administration Regulations (EAR) are as follows:

- The U.S. Government requires a license for the export or reexport to all destinations except Canada of dual-use items specifically identified on the CCL as controlled for missile technology reasons.
- The U.S. Government also controls items subject to the EAR due to end-use or end-user concerns related to the proliferation of certain rocket systems and unmanned aerial vehicles (UAVs). The U.S. missile catch-all policy meets U.S. nonproliferation objectives and is consistent with the MTCR Guidelines. The Department of Commerce reviews applications for licenses on a case-by-case basis to determine whether the export would make a material contribution to the proliferation of certain rocket systems or UAVs. If the Department of Commerce determines that an export will make such a contribution, the application will be denied.

Summary of 2011 Changes

The annual plenary for the Missile Technology Control Regime (MTCR) was held in April 2011 in Buenos Aires, Argentina. At the Plenary, the MTCR partners discussed the direct relevance of UN Security Council Resolutions (UNSCRs) 1874 (North Korea) and 1929 (Iran) to MTCR export controls. The MTCR partners discussed the importance for all States to take all necessary steps at a national level to fully and effectively implement the missile-relevant provisions of these resolutions. The growing interest by many states in cooperating with or possibly adhering to the MTCR was discussed, and the Plenary supported the Chair's ongoing outreach efforts to non-members.

The MTCR also held a Technical Experts Meeting (TEM) in conjunction with the Plenary to discuss proposed changes to the MTCR control list. Changes adopted at the plenary included adding controls for the production facilities specially designed for rocket systems and unmanned aerial vehicle systems capable of a range equal to or greater than 300 km; and clarifying the coverage of control in the General Technology Note. No changes in the EAR resulted from this update to the MTCR Annex.

The MTCR held an intercessional Technical Experts Meeting (TEM) in Paris on November 14-18, 2011 to discuss additional changes to the MTCR control list.

The annual Reinforced Points of Contact (RPOC) meeting for the MTCR was held on December 6-7, 2011 in Paris.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

These controls curtail the availability of goods and technology and other support that could contribute to missile proliferation. U.S. export controls on specific types of missile-related equipment and technology, in coordination with other supplier countries, limit the proliferation of missile systems and related technology. These controls complement U.S. and international nuclear, chemical, and biological nonproliferation efforts by blocking the development of unmanned delivery systems for WMD. Also, these controls provide U.S. support to the collective effort of the MTCR to address mounting international concern regarding missile proliferation.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the limited foreign availability of items controlled for Missile Technology (MT) reasons, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. The controls at issue have been in part achieved through international or multilateral negotiations. Although some controlled items are available from other countries, cooperation among the United States, its MTCR Partners, and other like-minded countries, many of which are major producers of the items under control, has hindered the efforts of proliferators to develop or acquire militarily effective missiles. The Secretary has determined that extending these controls is likely to limit the spread of missile delivery systems.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. Halting the spread of missiles and related equipment and technology worldwide is a key U.S. national security and nonproliferation objective. Missile technology export controls are consistent with, and contribute to, achieving this objective. U.S. membership in the MTCR complements existing nuclear, chemical, and biological nonproliferation policies by curbing the spread of missile technology and equipment for the delivery of WMD.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. The United States is confident that other members of, and unilateral adherents to, the MTCR, many of which are also the leading suppliers of missile-related technology, will continue to support and strengthen this control regime. MTCR Partners share information regarding denials of Annex items and are committed to a “no undercut” policy. MTCR Partners also share information about potential activities of missile technology proliferation concern and have cooperated to interdict specific shipments. The number of non-MTCR countries willing to cooperate with the regime has increased over the past several years. Finally, the United States and its MTCR Partners are actively engaged in an outreach program to encourage additional countries to adhere to the Guidelines and implement effective export controls on MTCR items.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the U.S. economy, including on the competitive position of the United States in the international economy, does not exceed the benefits to U.S. foreign policy objectives. Only a narrow list of items is subject to missile controls, and the effect on overall

U.S. trade is limited. The commitment by MTCR to a “no undercut” policy helps ensure that no member obtains an unfair commercial advantage in the international marketplace.

In fiscal year 2011, the Department of Commerce approved 818 applications, valued at \$2.6 billion dollars, for the export or reexport of missile technology-controlled items. In addition, the Department rejected 9 applications valued at \$3.2 million and returned without action 37 applications valued at \$15.6 million. Comparatively few licenses for missile technology items are denied because: (1) exporters do not generally pursue transactions they understand will be rejected (based on the applicable licensing policy); and (2) most of the applications involve exports to destinations, and for end uses, that do not pose missile proliferation concerns.

Under the Enhanced Proliferation Control Initiative (EPCI) control related to missile technology (15 C.F.R. § 744.3), the Department of Commerce approved 13 applications, valued at \$7.7 million, denied 5 licenses valued at \$318,000, and returned without action 1 application, valued at \$137,000. In these applications, EPCI missile concerns were the basis for the license requirement.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Multilateral controls on missile technology provide a strong framework for cooperative enforcement efforts overseas. However, there are challenges for the enforcement of controls on dual-use goods related to missile development. First, it is difficult to detect and investigate cases under the “knowledge” standard set forth in the EPCI “catch-all” provision. Second, some countries have different standards for “catch-all,” which complicates law enforcement cooperation. Third, identifying illegal exports and reexports of missile-related goods requires significant investigative resources.

To enforce these controls effectively, the Department of Commerce continues to focus on preventive enforcement, including an outreach program to educate companies about export controls and to increase awareness of “red flags” that may indicate a risky transaction. This program is an important component of the Department of Commerce’s efforts to prevent companies from illegally exporting dual-use products or equipment that could be used to make missiles.

BIS conducted a number of recent enforcement actions regarding noncompliance with these export controls. For example:

Missile Components and Radio Test Sets to Iran

On August 15, 2011, Davoud Baniaméri was sentenced in U.S. District Court in the Northern District of Illinois to 51 months in federal prison after pleading guilty in May to two felony charges stemming from his efforts to illegally export missile components (connector adaptors) and radio test sets from the United States to Iran, via the United Arab Emirates. At no time did Baniaméri obtain or attempt to obtain a license from the U.S. government for the export of the radio test sets or the connector adaptors.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54427), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I. In addition, comments were solicited from the public via the BIS website.

The Department of Commerce holds discussions with industry representatives on issues related to the MTCR Annex through the Transportation Technical Advisory Committee and other relevant technical advisory committees (TACs) as appropriate. Comments from the Department's seven TACs are solicited on an ongoing basis and are not specific to this report. The Department of Commerce also participates in interagency working groups that review proposed changes to the Annex, and engages in discussions of the proposals with companies that have relevant expertise.

D. Consultation with Other Countries

Consultation with other MTCR members is a fundamental element of U.S. missile technology control policy. Consultations with non-MTCR countries also are essential to U.S. missile nonproliferation policy. The U.S. Government exchanges information with other countries about activities of missile proliferation concern and seeks to cooperate with them to prevent or stop certain transactions. The United States also shares denial information with its MTCR Partners, who are committed to the Regime's "no-undercut" policy.

MTCR member countries cooperate with non-member countries to limit the spread of WMD delivery systems by encouraging all countries to apply the MTCR Guidelines on a national basis. The MTCR's outreach efforts have included workshops and seminars, at which MTCR members and invited non-members share experiences in an effort to improve prevention of missile proliferation.

E. Alternative Means

The missile sanction provisions in Section 73 of the Arms Export Control Act and Section 11B of the Export Administration Act of 1979, as amended (EAA), provide for the imposition of export, import, and procurement sanctions on foreign entities engaged in certain kinds of activities relating to the transfer of MTCR Annex items to non-MTCR adherent countries. In the past, the United States has imposed missile sanctions on entities in Egypt, India, Iran, Macedonia, Moldova, North Korea, Pakistan, China, Russia, South Africa, and Syria. Missile sanctions are used to encourage the governments of the sanctioned entities to adopt responsible nonproliferation behavior and to send a clear message about the United States' strong commitment to missile nonproliferation.

The United States and its MTCR Partners are continuing their diplomatic efforts to encourage additional countries to adhere unilaterally to the MTCR Guidelines. Such efforts are aimed at encouraging non-MTCR members to implement and enforce effective missile technology export controls. Although the United States has an obligation to maintain and renew its export controls based on its membership in the MTCR, it also has pursued alternative means to achieve the purposes of the controls through its consultations with non-MTCR countries.

F. Foreign Availability

Possible suppliers of missile technology that are not MTCR members include, but are not limited to, China, North Korea, Egypt, India, Iran, Israel, and Taiwan. Some of these countries, such as India and Israel, adhere unilaterally to the MTCR Guidelines. The United States continues to approach other nations, including those that produce MTCR Annex-controlled items, to urge their vigilance in applying MTCR Guidelines to help prevent missile proliferation.

CHAPTER 9

Encryption (Section 742.15)

Export Control Program Description and Licensing Policy

The U.S. maintains export controls on encryption items to protect and preserve national security and foreign policy interests. Encryption items may be used to maintain the secrecy of information, and therefore may be used by persons abroad to bring harm to U.S. national security and foreign policy interests. The U.S. Government has a critical interest in ensuring that the legitimate needs for protecting important and sensitive information of the public and private sectors are met, and that persons seeking to damage U.S. national security and foreign policy interests are not able to conceal hostile or criminal activities.

When dual-use encryption items were transferred from the USML to the CCL in 1996, a foreign policy reason for control was imposed on these items. A license is required to export or reexport Encryption Items (EI) (classified under Export Control Classification Numbers (ECCNs) 5A002, 5D002 and 5E002 on the CCL) to all destinations except Canada. All items controlled for EI reasons are also controlled for National Security (NS) reasons.

License Requirements and Licensing Policy for Encryption Controls

Most EI-controlled items are eligible for export and reexport to non-government end-users under the terms and conditions of License Exception Encryption Commodities, Software and Technology (ENC) after self-classification by the exporter or classification by the Bureau of Industry and Security (BIS) and the National Security Agency, and many items are also eligible for export and reexport to government end-users under this License Exception. On January 7, 2011, BIS published amendments to the encryption provision of the EAR that released from control publicly available mass market software after an encryption registration and self-classification. Also released was publicly available object code when the corresponding source code is publicly available under License Exception Technology and Software Unrestricted (TSU).

License applications to export or reexport EI-controlled items are subject to case-by-case review for consistency with U.S. national security and foreign policy interests. EI-controlled items are also eligible for Encryption Licensing Arrangements (ELAs), which authorize exports and reexports of unlimited quantities of encryption commodities or software to foreign national

state, provincial and local governments for civil use, in all destinations, except countries listed in Country Group E:1.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

Encryption products can be used to conceal the communications of terrorists, drug smugglers, and others intent on harming U.S. interests. Cryptographic products and software also have military and intelligence applications that, in the hands of hostile nations, could pose a threat to U.S. national security. The national security, foreign policy, and law enforcement interests of the United States are protected by export controls on encryption items.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that U.S. export controls on encryption items restrict the export of encryption items in situations that would be contrary to U.S. national security or foreign policy interests. The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose in light of other factors, including the availability of encryption items from other countries, and that the foreign policy purpose cannot be achieved solely through agreements with the participating states of the Wassenaar Arrangement or through alternative means. This determination with due consideration for the continuing growth of electronic commerce and Internet use, as the emergence of new security protocols for, among other things, short-range wireless communications, and the growth in the number of countries with the technology to produce highly sophisticated, dual-use encryption products.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives, and that the extension of these controls will not have significant adverse foreign policy consequences. The controls are consistent with the U.S. foreign policy goal of preventing U.S. exports (and subsequent reexports) that might contribute to the capabilities of international terrorists or criminals.

3. *Reaction of Other Countries.* The Secretary has determined that the continued implementation of U.S. encryption export controls is generally accepted in the international community, and that any adverse reaction to these controls is not likely to render the controls ineffective, nor are they counterproductive to the foreign policy interests of the United States. Other countries, particularly the Wassenaar participating states, recognize the need to control exports of such products for national security reasons.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that the continued implementation of encryption regulations that are periodically updated will allow U.S. industry to maintain a leadership position in the global market for encryption products and that the effect of encryption controls on export performance do not exceed the benefit to U.S. foreign policy objectives.

In fiscal year 2011, 922 companies filed encryption registrations. This activity continues to reflect the expanding trade in encryption items, and the wide commercial applicability of such items. The Department of Commerce processed 1,311 classification requests for controlled encryption products, components, toolkits, and source code items classified under ECCNs 5A002, 5D002, 5E002, 5B002, 5A992, 5D992, and 5E992. This is a 37% decrease in the number of classification requests processed for encryption products from fiscal year 2010, due, in part, to decontrols and exporters' ability to self-classify encryption products after an encryption registration. Of these classification requests, 319 were for mass market encryption items. Mass market encryption items typically include handheld devices, commodities and software for home networking use, and software applications for smartphones, tablets, and personal computers classified under ECCNs 5A992.c, 5D992.c and 5E992.b.

Additionally, during fiscal year 2011, the Department of Commerce approved 1,700 license applications for "restricted" encryption items, such as high-end routers and other network infrastructure equipment, and technology. In fiscal year 2011, there were no denials of encryption items based on issues specific to encryption-related licensing policy.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Detection of some encryption transactions is difficult because encryption components are often incorporated into other products and encryption software can be transferred over the Internet.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. The comment period closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I.

The U.S. Government continually consults with U.S. industry, including BIS's Information Systems Technical Advisory Committee and other technical advisory committees as appropriate, regarding encryption policy. The objective of these consultations is to develop policies that assist law enforcement, protect U.S. national security, ensure continued U.S. technological

leadership, and promote the privacy and security of U.S. firms and citizens. Such consultations have proven successful, as evidenced by the increasing number of encryption items submitted for technical review and constructive industry input on matters of regulations and policy.

D. Consultation with Other Countries

The U.S. Government participates in global efforts to prevent international criminals, terrorists, and designated state sponsors of terrorism from acquiring sophisticated encryption products. One such effort is the Wassenaar Arrangement. The Wassenaar Arrangement was established to enhance regional and international security by developing standards and norms for conventional arms and dual-use goods and technology transfers. Participating states seek, through their national policies, to ensure that transfers of these items do not contribute to the development or enhancement of military capabilities which undermine these goals, and are not diverted to support such capabilities. Encryption items are included under the Wassenaar Arrangement's Basic List of dual-use goods and technologies, with controls based on the encryption strength (e.g., key length) and use of specified dual-use items. In addition, the Wassenaar Arrangement's Cryptography Note provides for release from national security controls of "mass market" encryption items otherwise covered by the Wassenaar control list. U.S. encryption policy reflects this consultation with other participating states of the Wassenaar Arrangement. Also, the United States government encourages major industrial and trading partners to adopt and maintain export controls on encryption equipment and technology in bilateral meetings.

E. Alternative Means

EI foreign policy controls are coextensive with national security controls placed on encryption items. Therefore, if EI controls on encryption items were removed, national security controls would remain in place. National security controls are also maintained cooperatively with the other members of the Wassenaar Arrangement.

F. Foreign Availability

The United States recognizes the ongoing adoption and widespread use of encryption worldwide, and the continued development of foreign-made encryption hardware and software. The U.S. Government continues to monitor global IT marketplace and encryption policy developments so that updated U.S. regulations will enable American companies to maintain their technological leadership in a manner that safeguards U.S. national security and public safety interests. The U.S. Government consults with other governments to secure cooperation in controlling the availability of encryption items.

CHAPTER 10

Significant Items: “Hot Section” Technology (Section 742.14)

Export Control Program Description and Licensing Policy

Certain technology transferred from the USML to the CCL is subject to “enhanced control.” This technology is designated by the acronym “SI,” which stands for “Significant Items.” The technology controlled for SI reasons is “hot section” technology for the development, production, or overhaul of commercial aircraft engines, components, and systems. Technology controlled for SI reasons is classified under various paragraphs of Export Control Classification Number (ECCN) 9E003 (specifically ECCN 9E003.a.1 through a.8, 9E003.a.10, and 9E003.h and i). The SI controls supplement the national security controls that also apply to this technology.

License Requirements and Licensing Policy for Significant Items

The licensing policy for “hot section” technology is as follows:

- A license is required for exports and reexports to all destinations, except Canada.
- The United States reviews license applications for “hot section” technology on a case-by-case basis to determine whether the proposed export or reexport is consistent with U.S. national security and foreign policy interests.

Analysis of Control as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Control

This control provides a mechanism for the United States to monitor closely the export of this technology to prevent its use in a manner that would adversely affect U.S. nonproliferation goals or the military balance within a region.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that this control is likely to achieve the intended foreign policy purpose,

notwithstanding various factors, including the availability of these SI-controlled items from other countries, and that the foreign policy purpose has only been partially achieved through negotiations on export controls with the participating states of the Wassenaar Arrangement.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that this control is compatible with U.S. foreign policy objectives, and that the extension of this control will not have any significant adverse foreign policy consequences. The control is consistent with U.S. foreign policy goals to promote peace and stability and to prevent U.S. exports that would contribute to inappropriate military capabilities abroad.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to this control is not likely to render the control ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. “Hot section” technology for commercial jet engines is subject to dual-use export controls by other allied countries through the Wassenaar Arrangement. These countries also recognize the desirability of restricting goods that could compromise shared security and foreign policy interests.

4. *Economic Impact.* The Secretary has determined that any adverse effect of this control on the economy of the United States, and on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. In fiscal year 2011, the Department of Commerce approved 167 licenses for technology controlled under ECCN 9E003. Most of the 167 licenses approved involved the export of “hot section” technology, of which 35 involved deemed exports (i.e., the transfer of “hot section” technology to a foreign national in the United States). The total dollar value of the items subject to the licenses approved was \$12,817,614 in fiscal year 2011. No license applications involving engine “hot section” technology were rejected in fiscal year 2011. In addition, 15 applications involving items valued at a total of \$106,228 were returned without action.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce this control effectively. The U.S. Government does not experience any unusual problems in enforcing this control. Manufacturers and intermediary companies are familiar with U.S. controls on these products and technologies. With the exception of “hot section” technology currently used in civil derivatives of military engines controlled on the USML (ECCN 9E003.i), all of these items also are subject to multilateral controls. Therefore, cooperation from foreign government enforcement agencies is useful in preventing and punishing violators.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received may be found in Appendix I.

The Department of Commerce consults with the Transportation Technical Advisory Committee (TransTAC) about SI controls. Although there are no major changes anticipated regarding this control on the CCL, comments from the Department’s seven TACs are solicited on an ongoing basis and are not specific to this report.

D. Consultation with Other Countries

The United States leads international efforts to stem the proliferation of sensitive items, urging other supplier nations to adopt and apply export controls comparable to those of the United States. The major industrial partners of the United States maintain export controls on almost all of this equipment and technology and control them as dual-use commodities. Pursuant to their agreement to establish a regime for the control of conventional arms and sensitive dual-use goods and technologies, the participants in the Wassenaar Arrangement have agreed to control these items (with the exception of items subject to ECCN 9E003.i noted above, which the United States has not sought to control in Wassenaar) and to ensure that transfers of such items are carried out responsibly and in furtherance of international peace and security.

E. Alternative Means

The U.S. Government has undertaken a wide range of diplomatic endeavors, both bilateral and multilateral, to encourage proper control over these items, and has been successful in reaching multilateral agreement in the Wassenaar Arrangement to control most of these items. The United States has specifically encouraged efforts to prevent the unauthorized use or diversion of these items to activities contrary to U.S. national security and foreign policy concerns. However, these efforts do not replace the continued need for the additional control.

F. Foreign Availability

Although the United States has been the world leader in this technology, other countries produce “hot section” technology. Most countries that are producers of “hot section” technology are participants in the Wassenaar Arrangement and control these items (with the exception of items controlled under ECCN 9E003.i noted above) as dual-use items in accordance with their national

licensing policies. The commitment of the U.S. Government and its Wassenaar partners to maintain controls reflects the cooperation among governments to reduce foreign availability.

CHAPTER 11

Nuclear Nonproliferation (Sections 742.3 and 744.2)

Export Control Program Description and Licensing Policy

The U.S. Government maintains controls on exports of nuclear-related items under the authority of the Nuclear Nonproliferation Act of 1978 (NNPA) to further the United States' nuclear nonproliferation policy. Because these controls are primarily based on the NNPA and not the Export Administration Act (EAA), they are not subject to this report. However, BIS has included information on nuclear nonproliferation controls because they usually are grouped with other nonproliferation controls that are subject to this report. In addition, controls based on nuclear end uses and end-users are maintained under the authority of Section 6 of the EAA as part of the Enhanced Proliferation Control Initiative (EPCI). EPCI controls for other proliferation end uses are described in detail in Chapters 6, 7, and 8 of this report. The Entity List, maintained in Supplement No. 4 to Part 744 of the Export Administration Regulations (EAR) and discussed in Chapter 13 of this report, also prohibits certain transactions involving end-users and end uses involved in nuclear activities described in section 744.2 of the EAR.

Nuclear Nonproliferation Regime Controls

The Nuclear Nonproliferation Regime controls support U.S. international nuclear nonproliferation obligations, particularly with relation to its membership in the Nuclear Suppliers Group (NSG) and the Zangger Committee (ZC). The United States is a member of the 46-member NSG, which sets forth guidelines for the export of items that are either specially designed or prepared for the processing, use, or production of special nuclear material or are nuclear-related dual-use items and technologies (see Appendix II for a complete list of regime members). These controls also reflect U.S. membership in the ZC, a multilateral nuclear export control group that was formed to interpret Article III, paragraph 2, of the Nuclear Nonproliferation Treaty. Like the NSG, the ZC establishes and maintains a Trigger List of nuclear-related equipment and materials subject to export controls along with guidelines concerning the export of nuclear equipment and material.

Licensing Requirements and Licensing Policy

The Department of Commerce requires a license for the export of the following items:

- commodities, related technology, and software that could be of significance for nuclear explosive purposes (i.e., the Nuclear Referral List (NRL) included in the CCL); and
- any commodity, related technology, or software that the exporter knows, or has reason to know, will be used directly or indirectly in any of the following activities:
 - nuclear explosive activities including research on, or the development, design, manufacture, construction, testing or maintenance of nuclear weapons or nuclear explosive devices;
 - unsafeguarded nuclear activities, including research on, or the development, design, manufacture, construction, operation or maintenance of any nuclear reactor, critical facility, facility for the fabrication of nuclear fuel, facility for the conversion of nuclear material from one chemical form to another, or separate storage installation where there is no obligation to accept International Atomic Energy Agency (IAEA) safeguards at the facility or installation, when it contains any source of special fissionable material, or where any such obligation is not met; or
 - safeguarded and unsafeguarded nuclear activities, including research on, or the development, design, manufacture, construction, operation or maintenance of the following facilities, or components for such facilities: (i) facilities for the chemical processing of irradiated special nuclear or source materials; (ii) facilities for the production of heavy water; (iii) facilities for the separation of isotopes of source and special nuclear material; or (iv) facilities for the fabrication of nuclear reactor fuel containing plutonium.

The Department of Commerce may inform the exporter that a license is required for any item subject to the EAR when there is an unacceptable risk of use in, or diversion to, any of the activities described above.

Factors considered in reviewing applications for licenses include:

- the stated end use of the item;
- the significance for nuclear purposes of the particular item, including whether the item is to be used in research on or for the development, design, manufacture, construction, operation, or maintenance of any reprocessing or enrichment facility;
- the types of nuclear nonproliferation assurances or guarantees given in a particular case; and
- the nonproliferation credentials of the recipient country.

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls, including controls on nuclear-related items. The comment period closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I. In addition, comments were solicited from the public via the BIS website. Moreover, comments from the Department's seven Technical Advisory Committees (TACs) are solicited on a regular basis, but are not detailed in this report.

Analysis of Controls as Required by Law²¹

Section 17(d) of the EAA and Section 309(c) of the NNPA provide that: (1) nuclear nonproliferation controls do not expire annually and determinations to extend them are thus not required; and (2) the criteria and other factors set forth in Sections 6(b) through 6(f) of the Act are not applicable to these controls. The Department of Commerce is, therefore, notifying Congress that these controls continue in effect. These controls further the nuclear nonproliferation policy of the United States and have made it more difficult for nations to acquire sensitive nuclear technology or equipment.

The Departments of Commerce and Energy, in consultation with the Departments of State and Defense and the Nuclear Regulatory Commission, regularly review and revise the NRL pertaining to U.S. dual-use items controlled for nuclear nonproliferation reasons. The NRL is used to meet the United States' NSG commitments with respect to nuclear dual-use items. During fiscal year 2011, there were no additions or updates to the NRL. The NSG has begun a complete review of the Trigger Lists and Dual Use Annex, meaning changes to the NRL can be expected in the upcoming years.

BIS conducted a number of recent enforcement actions regarding these controls. For example:

Carbon Fiber to China

On August 10, 2011, Jianwei Ding, of Singapore, who currently is incarcerated in federal prison, agreed to pay a \$100,000 civil penalty and have his export privileges denied for a period of 25 years, to settle allegations that he conspired to violate the EAR by knowingly and willfully attempting to export carbon fiber to China for use by the China Academy of Space Technology (CAST) without the required U.S. Government authorization. The carbon fiber is controlled for reasons of nuclear nonproliferation.

²¹ The analysis, required by law, differs for nuclear nonproliferation controls. It is governed by the Nuclear Nonproliferation Act of 1978 (NNPA). Therefore, the headings under this section differ from the rest of the report.

Metals to China and Israel

On March 15, 2011, TW Metals, Inc. of Exton, Pennsylvania, agreed to pay a \$575,000 civil penalty to settle allegations that, on 49 occasions, it violated the EAR by exporting titanium alloy and aluminum bar to China and Israel without the required export licenses. Titanium alloy and aluminum bar are both controlled for reasons of nuclear nonproliferation.

High Performance Paints to a listed entity in Pakistan

On December 21, 2010, PPG Paints Trading (Shanghai) Co., Ltd., a wholly-owned Chinese subsidiary of United States-based PPG Industries, Inc., pled guilty and was sentenced in U.S. District Court for the District of Columbia for violating the International Emergency Economic Powers Act and the EAR. PPG Paints Trading conspired to export high-performance PPG Industries' coatings from the United States to Chashma 2 Nuclear Power Plant in Pakistan via a third-party distributor in the People's Republic of China without first obtaining the required export license. PPG Paints Trading paid \$2 million in criminal fines and \$32,319 in forfeiture. PPG and PPG Paints Trading also paid \$1.75 million in civil penalties to settle BIS administrative charges.

CHAPTER 12

Surreptitious Listening (Section 742.13)

Export Control Program Description and Licensing Policy

The United States maintains controls on surreptitious listening items to prevent the unlawful interception of oral, wire, or electronic communications by terrorists and others who may use the information for unlawful purposes or in ways contrary to the national security and foreign policy of the United States. Surreptitious Listening (SL) items are devices used for the surreptitious interception of wire, oral, or electronic communications and are controlled under Export Control Classification Number (ECCN) 5A980. Export controls extend to related software and technology through ECCNs 5D980 (software) and 5E980 (technology).

License Requirements and Licensing Policy

A license is required for the export or reexport to any destination of any electronic, mechanical, or other device primarily useful for surreptitious interception of wire, oral, or electronic communications. The Department of Commerce will generally approve applications for the export and reexport of items controlled for SL reasons other than to destinations for which a license is also required for AT reasons, and where the end-users are providers of wire or electronic communication service acting in the normal course of business; or to officers, agents, or employees of, or persons under contract with, the United States, a State, or a political subdivision thereof, when engaged in the normal course of government activities. License applications from other parties will generally be denied.

The license requirements set forth in the EAR are independent of the requirements of section 802 of the Omnibus Crime Control and Safe Streets Act of 1968, as amended (18 U.S.C. 2512). These controls do not supersede, nor do they implement, construe, or limit the scope of any of the statutory restrictions of section 18 U.S.C. 2512 (section 802 of the Omnibus Crime Control and Safe Streets Act of 1968, as amended) that are enforced by the U.S. Department of Justice.

Analysis of Control as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Control

The purpose of surreptitious listening controls is to: prevent the unlawful interception of oral, wire, or electronic communications by terrorists and others who may put the information gained

through intercepted communications to an unlawful use; promote the protection of privacy of oral, wire, or electronic communications; and protect against threats of terrorism around the world. The controls also distance the United States from nations that have repeatedly supported acts of terrorism and from individuals and organizations that commit terrorist acts.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that the surreptitious listening controls are likely to achieve the intended foreign policy purpose, notwithstanding the availability of these controlled items from other countries, and that the foreign policy purpose cannot be achieved through negotiations or other alternative means.

Sending or carrying the devices in foreign commerce is already subject to independent criminal sanction.²² Nevertheless, the imposition of foreign policy-based controls on these devices and related software and technology will enhance the probability of achieving the intended foreign policy purposes.

Although the availability of comparable goods from foreign sources limits the effectiveness of the surreptitious listening controls, these controls restrict access to U.S.-origin commodities, technology, and software, and demonstrate U.S. determination to prevent the unlawful interception of communications, to promote privacy protection, and to oppose and distance itself from international terrorism.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that the imposition of these controls is consistent with the foreign policy objectives of the United States and will not have any significant adverse foreign policy consequences. The imposition of surreptitious listening controls will enhance the U.S. Government's ability to stop the supply of U.S.-origin items to persons engaged in, or supportive of, unlawful uses of intercepted communications, privacy violations, and acts of terrorism. The imposition of these controls is also compatible with overall U.S. policy towards Cuba, Iran, North Korea, Sudan, and Syria. The U.S. Government intends to promote privacy protection and aid in deterring criminal activities, including terrorism, through these foreign policy-based controls.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to the imposition of surreptitious listening controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy

²² Omnibus Crime Control and Safe Streets Act of 1968, as amended (18 U.S.C. 2512).

interests. Most countries are generally supportive of U.S. efforts to prevent unlawful uses of intercepted communications, including uses of intercepted communications by terrorists or states that support international terrorism.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. Because sending or carrying the devices in foreign commerce is already subject to independent criminal sanction, the imposition of foreign policy-based controls on the devices and related software and technology will not have a discernible economic impact.

In fiscal year 2011, the Department of Commerce approved two applications for the export or reexport of SL controlled items valued at a total of \$3.2 million. In addition, the Department returned without action four applications for items valued at \$1.2 million. No applications were rejected. During the same time period, the Department completed five commodity classification determinations classifying items under ECCNs 5A980, 5D980, or 5E980.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. The U.S. Government can effectively enforce these controls by focusing on preventive enforcement, using regular outreach efforts to keep industry informed of the license requirements and prevent inadvertent exports, and gathering leads on activities of concern.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. The comment period closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I.

The Department of Commerce consults with the Regulations and Procedures Technical Advisory Committee (RPTAC), one of seven such committees that advise the Bureau of Industry and Security (BIS), in preparation for publication of major regulatory changes affecting foreign policy controls.

D. Consultation with Other Countries

The United States continues to consult with a number of countries, both on a bilateral and a multilateral basis. In general, most countries are supportive of measures designed to prevent the

unlawful use of intercepted communications, protect privacy, and combat terrorism, but do not implement strict export controls on these items similar to those imposed by the United States. The United States will consult with other countries as necessary regarding these changes in order to ensure compliance and encourage other countries' efforts to deter terrorism and other criminal activity through controlling surreptitious listening devices.

E. Alternative Means

The U.S. Government continually reviews the means by which it can curtail privacy violations and terrorism and has taken a wide range of diplomatic, political, and security-related steps to support this effort. Imposing these foreign policy-based controls enhances these efforts in order to prevent terrorist-supporting countries from acquiring items subject to U.S. export control jurisdiction. In addition, these controls underscore the United States' commitment to prevent criminal activity worldwide.

F. Foreign Availability

The commodities subject to these controls are likely available from foreign suppliers. The Department of Commerce is aware that these controls will not prevent the shipment of such foreign-origin items from other countries, but the regulation minimizes the risk of diversion of U.S.-origin devices and related software and technology primarily useful for surreptitious interception of wire, oral, or electronic communications to end-users without a legitimate commercial need for such devices.

CHAPTER 13

Entity List (Supplement No. 4 to Part 744)

Export Control Program Description and Licensing Policy

To protect and advance the national security and foreign policy interests of the United States, the Bureau of Industry and Security (BIS) has adopted foreign policy-based end-use and end-user controls that focus on entities that pose a threat to U.S. national security or foreign policy interests, and BIS has taken steps to provide additional information to the public about these entities of concern. The Entity List (Supplement No. 4 to Part 744 of the Export Administration Regulations (EAR)) provides notice to the public that certain exports, reexports, and transfers (in-country) to the foreign persons identified on the Entity List (including businesses, research institutions, government and private organizations, individuals, and other types of legal persons) require a license from BIS and that the availability of License Exceptions in such transactions is limited.

Established in 1997, the Entity List prohibits unlicensed exports, reexports and transfers (in-country) of items subject to the EAR for use in or by a party involved in defined nuclear, missile, chemical and biological weapons activities (*see* Sections 744.2, 744.3, and 744.4 of the EAR). The Entity List also prohibits unlicensed exports, reexports and transfers (in-country) of items subject to the EAR to certain persons in Russia, persons acting contrary to the national security or foreign policy interests of the United States, and persons sanctioned by the Department of State (*see* Sections 744.10, 744.11 and 744.20 of the EAR). Entity List entries specify the license requirement and license review policy imposed on each listed entity. These license requirements are supplemental to any license requirements imposed on the transaction elsewhere in the EAR.

The End-user Review Committee (ERC) implements revisions to the Entity List; entities are added to the List by majority vote, while removals or other changes to the List are implemented by unanimous vote. The ERC conducts an annual review of all persons on the Entity List and revises and updates the list as necessary. Persons on the Entity List may request removal from the List or a modification of their status on the List under Section 744.16 of the EAR. The ERC is chaired by the Department of Commerce and is composed of representatives of the Departments of Commerce, State, Defense, Energy, and – where appropriate – the Treasury.

Summary of 2011 Changes

On January 25, 2011, BIS published a final rule in the *Federal Register* (76 FR 4228) that implemented changes to the Entity List based on the November 2010 bilateral understanding between the United States and India. Under the agreement, the President and Indian Prime Minister Singh agreed to take mutual steps related to export controls, which included the removal of India's defense and space-related entities from the Entity List. In the rule, nine Indian entities were removed from the Entity List.

On April 18, 2011, BIS published a final rule in the *Federal Register* (76 FR 21628) that implemented changes to the Entity List based on the ERC's annual review of listed entities in Iran and the United Arab Emirates (UAE). The rule removed one person, located in the UAE, and modified four entries by clarifying names, adding addresses, and/or adding aliases for one Iranian person and three UAE persons. This rule also removed one person located in the United Kingdom (UK) from the Entity List based on that person's request for removal, and a review of information provided in the removal request by the ERC. In addition, the rule clarified an existing entry for a person located in the People's Republic of China (PRC) to accurately reflect the relationship between two aliases listed under the entry. Lastly, the rule updated the Code of Federal Regulations' (CFR) legal authority citations for parts 730 and 744 of the EAR.

On May 24, 2011, BIS published a final rule in the *Federal Register* (76 FR 29998) that implemented changes to the Entity List based on a policy decision in recognition of the bilateral partnership between the United States and Russia. The rule implemented a decision by the Departments represented on the ERC to remove the entry for the Federal Atomic Power of Russia (Rosatom), now known as the Russian State Corporation of Atomic Energy (Rosatom), from the Entity List. The ERC also modified two entries to clarify that two Rosatom components -- the All-Russian Scientific Research Institute of Technical Physics (VNIITF) and the All-Russian Scientific Research Institute of Experimental Physics (VNIIEF) -- remained on the Entity List.

On June 28, 2011, BIS published a final rule in the *Federal Register* (76 FR 37632) that added eight persons to the Entity List under Section 744.11 of the EAR. The ERC added these persons based on evidence that they engaged in actions that could enhance the military capability of Iran, a country designated by the U.S. Secretary of State as having repeatedly provided support for acts of international terrorism, and because their overall conduct posed a risk of ongoing EAR violations. For all eight persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in France (three entries), Iran (three entries), and the UAE (two entries).

On July 25, 2011, BIS published a final rule in the *Federal Register* (76 FR 44259) that added six persons to the Entity List under Section 744.11 of the EAR. The ERC added these persons based on evidence that they engaged in actions that could enhance the military capability of Iran, and because their overall conduct posed a risk of ongoing EAR violations. The ERC determined that six persons purchased electronic components from U.S. firms and then resold the components to companies in Iran without the required U.S. export license. These same components were later found in Iraq in unexploded improvised explosive devices. For all six entities, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Hong Kong (two entries) and Lebanon (four entries).

On August 15, 2011, BIS published a final rule in the *Federal Register* (76 FR 50407) that added fifteen persons under twenty entries to the Entity List, based on Section 744.11 of the EAR.²³ The ERC added these fifteen persons to the Entity List based on evidence that they were involved in activities contrary to U.S. national security or foreign policy interests, specifically the leasing, transfer, and operation of commercial aircraft subject to the EAR to Syria and Iran without the requisite licenses. The ERC also determined that these persons' activities violated the license requirements for exports and reexports to Syria pursuant to General Order No. 2 of Supplement No. 1 to part 736 of the EAR and violated the sanctions against Iran pursuant to the Iran Transactions Regulations (31 CFR Part 560). Both Syria and Iran have been designated by the Secretary of State as countries that have repeatedly provided support for acts of international terrorism. For all fifteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Cyprus (one entry), Greece (three entries), Iran (four entries), Syria (two entries), Ukraine (five entries), and the United Kingdom (five entries).

The August 15, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Syria. The rule modified seven entries by clarifying names, adding addresses, and/or adding aliases to the entries of seven Syrian persons. Lastly, the rule modified an existing entry located in the PRC in order to clarify the relationship of a listed alias to the existing entry and to provide additional information on the alias.

On October 12, 2011, BIS published a final rule in the *Federal Register* (76 FR 63184) that added two persons to the Entity List based on evidence that they were involved in activities contrary to U.S. national security and foreign policy interests (Section 744.11 of the EAR). The ERC added the two persons based on evidence that they were complicit in violations of the EAR and Hong Kong export control requirements for shipments to the PRC. For both entities, the

²³ The five additional entries account for the five alternate addresses of persons in multiple destinations.

ERC specified a license requirement for all items subject to the EAR and established a license review policy of a presumption of denial. The persons added are both located in Hong Kong.

The October 12, 2011 rule also removed one Hong Kong person from the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Hong Kong. In addition, the rule removed three persons, located in Hong Kong and New Zealand, from the Entity List. These persons were removed as a result of their submitted requests for removal submitted and a review of information provided by the ERC.

On October 31, 2011, BIS published a final rule in the Federal Register (76 FR 67059) that added fifteen persons under twenty-five entries to the Entity List, based on section 744.11 of the EAR.²⁴ The ERC added eight of the persons based on evidence that they engaged in actions that could enhance the military capability of Iran, a country designated by the U.S. Secretary of State as having repeatedly provided support for acts of international terrorism, and of militant insurgents operating in Iraq against the U.S. military, and because their overall conduct posed a risk of ongoing EAR violations. Specifically, these persons participated in a complex and layered network to procure items subject to the EAR and/or the International Traffic in Arms Regulations (ITAR) for shipment to Iran and/or the PRC without the requisite licenses. The remaining seven persons were added based on evidence that they engaged in actions facilitating the activities of the procurement network described above. For all fifteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Hong Kong (seven entries), Iran (three entries), the PRC (five entries), and Singapore (ten entries).

On November 21, 2011, BIS published a final rule in the Federal Register (76 FR 71867) that added fourteen persons under twenty-one entries to the Entity List, based on evidence that they were involved in activities contrary to U.S. national security and foreign policy interests (section 744.11 of the EAR).²⁵ The ERC added thirteen persons in Afghanistan and Pakistan based on evidence that they provided material support to persons engaged against U.S. and Coalition forces in Afghanistan. In addition, the ERC added one person in the PRC (with an alternate address in Hong Kong) based on evidence that it sought to obtain items subject to the EAR without the required authorizations. For all fourteen persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in Afghanistan (eleven entries), Hong Kong (one entry), Pakistan (eight entries), and the PRC (one entry).

²⁴ The ten additional entries account for the ten alternate addresses of persons in multiple destinations.

²⁵ The seven additional entries account for the seven alternate addresses of persons in multiple destinations.

The November 21, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Canada. The rule modified two entries by adding addresses to the entries of two Canadian persons.

On December 16, 2011, BIS published a final rule in the Federal Register (76 FR 78146) that added two persons to the Entity List, based on section 744.11 of the EAR. The ERC added these persons based on evidence that they were involved in the unauthorized transfer of U.S.-origin internet filtering equipment to Syria without the licenses required under the EAR, for possible use by the Syrian Telecommunications Establishment to aid in Syria's bloody crackdown on pro-democracy activists. For both persons, the ERC specified a license requirement for all items subject to the EAR and established a license application review policy of a presumption of denial. The persons added are located in the United Arab Emirates.

The December 16, 2011 rule also implemented changes to the Entity List on the basis of the ERC's annual review of the Entity List for listed entities in Malaysia, Singapore, and Taiwan. The rule removed four persons (two located in Singapore and two located in Taiwan), and modified one entry by adding an address to the entry of one Malaysian person.

Licensing Policy

For each person placed on the Entity List, the ERC specifies a license requirement and a license review policy. The requirement and review policy vary from person to person and are described within each person's listing on the Entity List.

Analysis of Controls as Required by Section 6(f) of the Export Administration Act

A. The Purpose of the Controls

The purpose of the Entity List and its related controls is to protect and advance the United States' national security and foreign policy interests by demonstrating U.S. resolve to restrict trade with persons that fail to comply with U.S. export control laws and regulations, fail to adhere to acceptable norms of international behavior, or whose conduct threatens U.S. interests. The purpose of the Entity List is to inform the public of entities that have engaged in activities that could result in an increased risk of diversion of items for use in weapons of mass destruction programs or in other activities contrary to U.S. national security and foreign policy interests.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that imposing foreign policy-based controls as part of the licensing requirements imposed on persons added to the Entity List is likely to achieve the intended national security and foreign policy purposes.

Although the United States regularly negotiates with other countries on how best to achieve export control goals, these negotiations may not achieve those U.S. export control objectives that are focused on individual persons. In cases where U.S. interests are at stake, the United States retains the authority to impose controls that reflect unilateral foreign policy objectives.

The United States seeks to prevent the use of U.S.-origin items in connection with actions that are detrimental to U.S. foreign policy goals. To that end, the license requirements that apply to entities placed on the Entity List are intended to prevent the acquisition of certain items by persons who might engage in activities contrary to U.S. interests. The Entity List enables BIS to target specific persons with export license requirements, thereby avoiding the imposition of overly broad license requirements on numerous items destined for many destinations.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that imposing these controls is compatible and consistent with the national security and foreign policy objectives of the United States. Specifically, these controls are consistent with the U.S. policy of prohibiting exports, reexports, and transfers (in-country) when specific and articulable facts provide reasonable cause to believe that the parties to whom the items will be provided are involved in activities contrary to the national security or foreign policy interests of the United States, or pose a significant risk of becoming involved in such activities. Additionally, the Department of State's representation on the ERC assures that the decisions based on this rule will be compatible with U.S. foreign policy interests. The Secretary has further determined that these expanded controls will not have significant adverse foreign policy consequences.

3. *Reaction of Other Countries.* The Secretary has determined that although other countries may raise objections to the Entity List, any adverse reaction to the expansion of the Entity List is not likely to render the Entity List ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. Further, the Department of Commerce coordinates with the Department of State to consult with countries impacted by changes to the Entity List. These consultations are completed in advance of any changes to the List.

4. *Economic Impact on United States Industry.* The Secretary has determined that the cost to industry resulting from the maintenance of these controls does not exceed the benefit to U.S.

foreign policy. These controls provide an effective alternative to imposing additional and overly broad end use or geographic license export control requirements. The identification of persons through publication in the Entity List also reduces uncertainty for U.S. industry. Thus, these controls minimize the economic impact on industry while allowing BIS to achieve U.S. foreign policy objectives through strengthened U.S. export controls. Additionally, interagency representation on the ERC provides reasonable assurance that additions to the Entity List will reflect significant U.S. foreign policy concerns.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. By imposing license requirements on clearly identified persons via the Entity List, the U.S. Government facilitates the identification of actual and potential violations of the EAR. Publication of the Entity List helps U.S. industry and foreign companies to identify restricted parties, thereby reducing inadvertent violations of the EAR and increasing compliance with the export controls.

C. Consultation with Industry

In a September 1, 2011 *Federal Register* notice (76 FR 54426), the Department of Commerce solicited comments from industry and the public on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 3, 2011. A detailed review of all public comments received can be found in Appendix I. In addition, comments were solicited from the public via the BIS website. Comments from the Department's seven technical advisory committees are solicited on an ongoing basis and are not specific to this report.

D. Consultation with Other Countries

The United States continues to consult with a number of countries, on both a bilateral and multilateral basis, regarding the persons on the Entity List. These consultations are based on specific and articulable facts that provide reasonable cause to believe that the parties pose a significant risk of becoming involved in activities contrary to the national security or foreign policy interests of the United States and other countries. Most countries are supportive of U.S. export and reexport controls and enforcement.

E. Alternative Means

The United States continually reviews its means to curtail activities that are contrary to U.S. interests. The United States has taken a wide range of diplomatic, political, and security-related steps to support this effort.

F. Foreign Availability

The Department of Commerce is aware that these controls will not necessarily prevent the acquisition of sensitive commodities, software, or technologies by persons listed on the Entity List. However, by publishing the Entity List and imposing penalties for violations of the licensing requirements on the Entity List, the United States is sending a strong message that may deter suppliers from participating in transactions with persons known or suspected of violating the EAR or acting contrary to U.S. interests. Additionally, the United States cooperates with other governments to curtail transactions by other (third-country) suppliers.

APPENDIX I

Summary of Public Comments on Foreign Policy-Based Export Controls

The Department of Commerce's Bureau of Industry and Security (BIS) requested public comments on existing foreign policy-based export controls maintained under Section 6 of the Export Administration Act of 1979, as amended (EAA), and on the Entity List (Supplement No. 4 to Part 744 of the Export Administration Regulations (EAR)) through a *Federal Register* notice published September 1, 2011 (76 FR 54426). In addition, comments were solicited from the public through the BIS Web page. Comments from the Department's seven Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report.

BIS requested comments on how existing foreign policy controls have affected exporters and the overall public. The notice invited public comments about issues such as: the effectiveness of controls when foreign availability exists; whether the goals of the controls can be achieved through other means such as negotiations; the compatibility of the controls with the overall U.S. policy toward a country in question; the effect of controls on U.S. economic performance; and the ability to enforce the controls.

The comment period closed on October 3, 2011. BIS received two comments, one from an individual and one from a university. BIS has made these comments available for review in the BIS Freedom of Information Act Reading Room available on the BIS Web page. BIS also makes comments available for public review upon request. This Appendix summarizes the comments received.

Industry Comments

BIS reviewed and considered the two comments received, one from Mr. William Root and another from the Massachusetts Institute of Technology.

Mr. Root, in his individual capacity, submitted comments on current U.S. embargoes, special controls on certain countries in Country Group D, and the availability of certain License Exceptions. Mr. Root asserted that the "embargo" over North Korea should not have been imposed and that restrictions should be limited to controls on luxury goods destined to leaders per international agreement. Mr. Root further asserted that the embargo of Cuba has been ineffective in furthering its original foreign policy objective of obtaining compensation for nationalized property. Mr. Root questioned the continuing special controls on Rwanda, indicating that they should be removed.

Mr. Root questioned the inclusion of certain countries in Country Group D1, D2, D3 or D4 and the limitations on license exceptions that derive from the country being in the category. These countries include Iraq, Libya, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Russia, Tajikistan, Turkmenistan and Ukraine. Mr. Root also suggested removing the assurance prerequisite for License Exception Technology Software Restricted (TSR), indicating that it is outdated. Mr. Root's rationale was that recent events no longer merited keeping these countries in these categories. Finally, Mr. Root questioned the reasonableness of License Exception Civilian (CIV) as it applies to D1 countries and to software items which are not eligible for TSR arguing that the rationale for TSR is outdated. Mr. Root also suggested that License Exception Additional Permissive Reexports (APR) in 740.16(a) be removed, stating his belief that the exception applied to a COCOM procedure that is no longer in place.

Claude R. Canizares, Vice President for Research and Associate Provost of the Massachusetts Institute of Technology (MIT), commented that U.S. encryption controls should be more focused. According to Mr. Canizares, encryption controls should focus on devices and source code that specifically embody and deliver state-of-the-art encryption, and controls should be reduced on devices and software that are only peripherally involved with encryption or that can be easily purchased from foreign sources. Mr. Canizares asserted that more focused controls would be equally likely to achieve the foreign policy purposes as existing controls and would also be compatible with U.S. foreign policy objectives. He also argued that other countries would likely welcome more focused controls and that more focused controls would enhance the pace of research, leading to future economic growth and exports.

APPENDIX II

Multilateral Export Control Regimes in 2011

WASSENAAR	AG	MTCR	NSG
Argentina	Argentina	Argentina	Argentina
Australia	Australia	Australia	Australia
Austria	Austria	Austria	Austria
			Belarus
Belgium	Belgium	Belgium	Belgium
		Brazil	Brazil
Bulgaria	Bulgaria	Bulgaria	Bulgaria
Canada	Canada	Canada	Canada
Croatia	Croatia		Croatia
	Cyprus		Cyprus
Czech Republic	Czech Republic	Czech Republic	Czech Republic
Denmark	Denmark	Denmark	Denmark
Estonia	Estonia		Estonia
	European Commission		European Union (Observer)
Finland	Finland	Finland	Finland
France	France	France	France
Germany	Germany	Germany	Germany
Greece	Greece	Greece	Greece
Hungary	Hungary	Hungary	Hungary
	Iceland	Iceland	Iceland
Ireland	Ireland	Ireland	Ireland
Italy	Italy	Italy	Italy
Japan	Japan	Japan	Japan
			Kazakhstan
Latvia	Latvia		Latvia
Lithuania	Lithuania		Lithuania
Luxembourg	Luxembourg	Luxembourg	Luxembourg
Malta	Malta		Malta
Netherlands	Netherlands	Netherlands	Netherlands
New Zealand	New Zealand	New Zealand	New Zealand
Norway	Norway	Norway	Norway
			People's Republic of China
Poland	Poland	Poland	Poland
Portugal	Portugal	Portugal	Portugal
Rep. of Korea (South Korea)			
Romania	Romania		Romania
Russian Federation		Russia Federation	Russian Federation
Slovak Republic	Slovak Republic		Slovak Republic
Slovenia	Slovenia		Slovenia

WASSENAAR	AG	MTCR	NSG
South Africa		South Africa	South Africa
Spain	Spain	Spain	Spain
Sweden	Sweden	Sweden	Sweden
Switzerland	Switzerland	Switzerland	Switzerland
Turkey	Turkey	Turkey	Turkey
Ukraine	Ukraine	Ukraine	Ukraine
United Kingdom	United Kingdom	United Kingdom	United Kingdom
United States	United States	United States	United States

AG: Australia Group; **MTCR:** Missile Technology Control Regime; **NSG:** Nuclear Suppliers Group

APPENDIX III**Selected Rules Published by the Department of Commerce in 2011**

Publication Date	<i>Federal Register</i> Citation	Rule
01/09/12	77 FR 1017	Export and Reexport License Requirements for Certain Microwave and Millimeter Wave Electronic Components
12/23/11	76 FR 80282	Revisions to the Export Administration Regulations (EAR): Control of Vessels of War and Related Articles the President Determines No Longer Warrant Control Under the United States Munitions List (USML)
12/23/11	76 FR 80291	Revisions to the Export Administration Regulations (EAR): Controls Applicable to Submersible Vessels, Oceanographic Equipment and Related Articles that the President Determines No Longer Warrant Control under the United States Munitions List
12/16/11	76 FR 78146	Addition of Certain Persons on the Entity List; and Implementation of Entity List Annual Pension Changes
12/12/11	76 FR 77115	Amendments to the Export Administration Regulations Facilitating Enhanced Public Understanding of the Provisions That Implement the Comprehensive U.S. Sanction on Syria
12/06/11	76 FR 76072	Revisions to the Export Administration Regulations (EAR): Control of Gas Turbine Engines and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML). (Proposed Rule)
12/06/11	76 FR 76085	Revisions to the Export Administration Regulations (EAR): Control of Military Vehicles and Related Items that the President Determines No Longer Warrant Control on the United States Munitions List. (Proposed Rule)
11/21/2011	76 FR 71867	Addition of Certain Persons to the Entity List; and Implementation of Entity List Annual Review Changes
11/14/11	76 FR 70337	Exports and Reexports to the Principality of Liechtenstein
11/09/11	76 FR 69609	Amendment to Existing Validated End-User Authorizations in the People's Republic of China: National Semiconductor Corporation and Semiconductor Manufacturing International Corporation
11/07/2011	76 FR 68675	Revisions to the Export Administration Regulations (EAR): Control of Aircraft and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML). (Proposed Rule)
10/12/2011	76 FR 63184	Addition of Certain Persons on the Entity List; Implementation of Entity List Annual Review Change; and Removal of Persons from the Entity List Based on Removal Requests
09/12/2011	76 FR 56099	Implementation of a Decision Adopted under the Australia Group (AG) Intersessional Silent Approval Procedures in 2010 and Related Editorial Amendments
09/06/2011	76 FR 54928	Export Administration Regulations: Netherlands Antilles, Curaçao, Sint

Publication Date	Federal Register Citation	Rule
		Maarten and Timor-Leste
08/15/2011	76 FR 50407	Addition of Persons Acting Contrary to the National Security or Foreign Policy Interests of the United States to the Entity List; and Implementation of Additional Changes from the Annual Review of the Entity List
07/25/2011	76 FR 44259	Addition of Certain Persons on the Entity List: Addition of Persons Acting Contrary to the National Security or Foreign Policy Interests of the United States
07/15/2011	76 FR 41958	Proposed Revisions to the Export Administration Regulations (EAR): Control of Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML)
07/13/2011	76 FR 41046	Addition of the New State of the Republic of South Sudan to the Export Administration Regulations
07/12/2011	76 FR 40804	Technical Amendment to the Authorization Validated End-User Regulations of the Export Administration Regulations
06/28/2011	76 FR 37632	Addition of Certain Persons on the Entity List: Addition of Persons Acting Contrary to the National Security or Foreign Policy Interests of the United States
06/24/2011	76 FR 36986	Export Controls for High Performance Computers: Wassenaar Arrangement Agreement Implementation for ECCN 4A003 and Revisions to License Exception APP
06/16/2011	76 FR 35276	Export Control Reform Initiative: Strategic Trade Authorization License Exception
05/24/2011	76 FR 29998	Removal and Modifications for Persons Listed Under Russia on the Entity List
05/20/2011	76 FR 29610	Wassenaar Arrangement 2010 Plenary Agreements Implementation: Commerce Control List, Definitions, Reports
04/29/2011	76 FR 23872	Editorial Corrections to the Export Administration Regulations
04/20/2011	76 FR 22017	Implementation of the Understandings Reached at the 2010 Australia Group (AG) Plenary Meeting and Other AG-Related Clarifications and Corrections to the EAR
04/18/2011	76 FR 21628	Implementation of Additional Changes From the Annual Review of the Entity List; Removal of Person Based on Removal Request
01/25/2011	76 FR 4228	U.S.-India Bilateral Understanding: Revisions to U.S. Export and Reexport Controls Under the Export Administration Regulations
01/18/2011	76 FR 2802	Additions and Revisions to the List of Validated End-Users in the People's Republic of China: CSMC Technologies Corporation and Advanced Micro Devices China, Inc.
01/07/2011	76 FR 1059	Publicly Available Mass Market Encryption Software and Other Specified Publicly Available Encryption Software in Object Code