
2011 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, 2010 (75 FR 50681 (August 16, 2010)). 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, 2011, to January 20, 2012. 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 2010 calendar year, most of the statistical data presented in the report are based on fiscal year 2010 export licensing statistics, unless otherwise noted. BIS

¹ 50 U.S.C. app. §§ 2401-2420 (2000).

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

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 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 Controls

On July 15, 2010, BIS published a regulation in the *Federal Register* (75 FR 41078) that updates and clarifies export and reexport license requirements on striking weapons, restraint devices, shotguns and parts, optical sighting devices, and electric shock devices. It also adds equipment designed for the execution of humans to the Commerce Control List.

Regional Stability Controls

On March 25, 2010, BIS published a regulation (75 FR 14335) that added Export Control Classification Numbers (ECCNs) 2A984, 2D984, and 2E984 to the Commerce Control List (CCL) to control certain concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and related software and technology. These three new ECCNs are subject to Regional Stability (RS2) and Anti-Terrorism (AT1) controls.

On June 30, 2010, BIS published a proposed rule (75 FR 37742) that would add a new ECCN 6A981 to the Commerce Control List. This ECCN would control certain passive infrasound sensors because of their military and commercial utility. The proposal includes imposition of Regional Stability (RS2) controls on these items, as well as Anti-Terrorism (AT1) controls. This is a proposed rule that solicited public comments; no licensing requirements have been imposed as yet.

Embargoes and Other Special Controls

Iran – On July 1, 2010, the President signed into law the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA). CISADA Title III requires the President to designate countries as Destinations of Diversion Concern if they allow “substantial diversion” of certain goods, services, or technologies through the country to Iranian end users or Iranian intermediaries. No country has yet been designated a Destination of Diversion Concern under CISADA.

Chemical and Biological Controls

On February 22, 2010, the Department of Commerce published a final rule in the *Federal Register* (75 FR 7548) amending the Export Administration Regulations (EAR) to update the controls on certain select agents identified in Export Control Classification Number (ECCN) 1C360 on the CCL (Supplement No. 1 to Part 774 of the EAR) and to make a correction to ECCN 1E998. The ECCN 1C360 updates are based on recent changes to the lists of select agents and toxins that are separately maintained by the Animal Plant and Health Inspection Service (APHIS), U.S. Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS). APHIS and CDC maintain controls on the “possession, use, and transfer within the United States” of certain select agents and toxins, while BIS controls “exports” of these select agents and toxins.

On March 23, 2010, the Department of Commerce published in the *Federal Register* (75 FR 13672) to amend ECCN 1C351 (Human and zoonotic pathogens and “toxins”) on the CCL to reflect the Australia Group (AG) decision to remove “white pox” virus from its list of biological agents.

Missile Technology Controls

On April 20, 2010, the Department of Commerce published a final rule in the *Federal Register* (75 FR 20520) amending the EAR to reflect the changes to the Missile Technology Control Regime (MTCR) Annex that were accepted by the MTCR member countries at the November 2009 Plenary in Rio de Janeiro.

The MTCR held an intercessional Technical Experts Meeting (TEM) in London on June 9-11, 2010 to discuss changes to the MTCR control list, including revised controls for hybrid rocket motors and clarifying controls on ferrocene derivatives.

The annual Reinforced Points of Contact (RPOC) meeting for the MTCR was held June 14-15, 2010 in Paris. At the RPOC, the MTCR partners evaluated their activities over the previous six months and reaffirmed their determination to strengthen efforts to

discourage missile programs and activities of proliferation concern. There was also an outreach meeting following the RPOC in Paris at which several MTCR Partners updated interested nonmembers on risk assessment in licensing practices.

Entity List

BIS will send a final rule to the *Federal Register* implementing changes to the Entity List on the basis of 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 to implement an export control reform program, including the removal of India's defense and space-related entities from the Entity List. The rule will remove several entities from the Entity List to implement the initial steps in the bilateral export control reform program.

Export Enforcement

BIS export enforcement efforts focus on the most significant international threats facing U.S. national and homeland security and foreign policy: the proliferation of weapons of mass destruction (WMD) and their means of delivery, international terrorism and state sponsors of terrorism, and diversions of U.S. dual-use goods and technologies to unauthorized military end users and end uses. The ability of the United States to enforce the foreign policy controls that it imposes is one of the criteria that this report examines. Contained in the report are summaries of some more significant recent foreign policy-related enforcement cases.

Electronic Components to China – On May 17, 2010, following a five week trial, a federal jury in Massachusetts found Zhen Zhou Wu, a.k.a. Alex Wu, and Yufeng Wei, a.k.a. Annie Wei, guilty of illegally conspiring to violate U.S. export laws and illegally exporting defense articles and electronic equipment from the United States to China. Several Chinese military entities were among those receiving the exported equipment. The jury also convicted Chitron Electronics, Inc., a Waltham, Massachusetts corporation owned by one of the defendants, which procured the equipment from U.S. suppliers and then exported the goods to China through Hong Kong. On April 5, 2010, co-defendant Eric Lee pled guilty in U.S. District Court in the District of Massachusetts to making false statements. The case is a joint investigation with the Federal Bureau of Investigation and U.S. Immigration and Customs Enforcement.

Aircraft to Iran – On May 11, 2010, Balli Aviation Ltd. (Balli Aviation), a subsidiary of the United Kingdom-based Balli Group PLC, was sentenced in U.S. District Court in the District of Columbia to pay a \$2 million fine and to serve a five-year corporate period of probation. On February 5, 2010, Balli Aviation pled guilty to a two-count criminal information for its actions arising out of the illegal export of commercial Boeing 747

aircraft, an item controlled for anti-terrorism reasons, from the United States to Iran. On February 4, 2010, Balli Group PLC and Balli Aviation entered a civil settlement with BIS and OFAC, which includes a civil penalty of \$15,000,000, of which \$2,000,000 is suspended pending no further export control violations. In addition, a five year denial of export privileges was imposed on Balli Aviation and Balli Group which will be suspended provided that during the suspension period neither Balli Aviation nor Balli Group commits any future violations and has paid the civil penalty. Under the terms of the settlement Balli Group and Balli Aviation will also have to submit the results of an independent audit of its export compliance program to BIS and OFAC for each of the next five years.

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 are 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.³
5. ***Effective Enforcement of Controls.*** Whether the United States has the ability to enforce the controls. Some enforcement problems are common to all foreign policy controls.⁴ Other enforcement problems 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 8, 2010, *Federal Register* notice (75 FR 54540), 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 8, 2010, and one comment was received. A detailed review of public comments can be found in Appendix I.

³ *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.*

⁴ *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.*

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 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)⁵

Export Control Program Description

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 tasers), 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 2010 Changes

On July 15, 2010, BIS published a regulation in the *Federal Register* (75 FR 41078) that updates and clarifies export and reexport license requirements on striking weapons, restraint devices, shotguns and parts, optical sighting devices and electric shock devices. It also adds equipment designed for the execution of humans to the Commerce Control List. This rule makes no changes to the longstanding policy of denial of applications to export or reexport specially designed implements of torture. The rule provides additional illustrative examples of such items and adopts a definition of torture used in a U.S. statute that implements the United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.

BIS is also drafting a proposed rule to be issued in a second phase to address more complex policy issues, such as the inclusion of biometric identification systems, training simulators, and integrated data systems on the Commerce Control List (CCL).

⁵ 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.

Indonesia

The U.S. Government denies applications to export certain crime control items to Indonesia, subject to narrow exceptions, consistent with Section 582 of the Foreign Operations, Export Financing and Related Programs Appropriations Act of 1995 and the Foreign Operations, Export Financing and Related Programs Supplemental Appropriations Act of 1994 (Public Law 103-306). This restriction could be lifted if the Secretary of State determines and reports to Congress that there has been significant progress made on human rights in Indonesia. The Secretary of State has not made such a determination.

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 Export Control Classification Number (ECCN). In support of the OAS Model Regulations, 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 Belarusian, Burmese, and Zimbabwean regime officials and their supporters.

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 Department of State 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, the IRFA requires that countries engaging in particularly severe violations of religious freedom be designated as Countries of Particular Concern. On January 16, 2009, the Secretary of State redesignated eight countries as Countries of Particular Concern: Burma, the Peoples Republic of China (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 2010, the Department of Commerce approved 5,637 export license applications valued at over \$1.78 billion for crime control items while the total value of all exports from the United States was \$1.2 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 2010.

Table 1: Crime Control Applications Approved, Fiscal Year 2010

ECCN	Items Controlled	Applications Approved	\$ Value
0A978	Saps	14	\$690,306
0A979	Police helmets and shields	118	\$14,228,666
0A982	Restraint devices, e.g., leg irons, shackles, handcuffs	324	\$43,989,091

ECCN	Items Controlled	Applications Approved	\$ Value
0A984	Shotguns and buckshot shotgun shells	954	\$42,541,225
0A985	Discharge type arms (stun guns, shock batons, etc.)	366	\$176,271,326
0A986	Shotgun shells	233	\$20,297,619
0A987	Optical sighting devices for firearms	1,535	\$158,422,215
0E982	Technology for items under 0A982/0A985	4	\$20,770
0E984	Technology for items under 0A984	3	\$2
1A984	Chemical agents including tear gas containing 1% or less of CS or CN	87	\$14,807,806
1A985	Fingerprinting powders, dyes, and inks	228	\$40,275,279
3A980	Voice print identification and analysis equipment	7	\$587,860
3A981	Polygraphs, fingerprint analyzers, cameras, and equipment	612	\$691,723,358
3D980	Software for items under 3A980 and 3A981	513	\$74,479,397
3E980	Technology for items under 3A980 and 3A981	15	\$1,462,381
4A003*	Digital computers for computerized fingerprint equipment only	13	\$50,679,728
4A980	Computers for fingerprint equipment	11	\$101,771,282
4D001*	Software for items under 4A003 only	261	\$260
4D980	Software for items under 4A980	13	\$215,113,674
4E001*	Technology for items under 4A003 and 4D001 only	281	\$35,012,275

ECCN	Items Controlled	Applications Approved	\$ Value
4E980	Technology for items under 4A980	1	\$1
5A980	Communications intercepting devices and parts/accessories	1	\$46,448
6A002.c*	Police-model infrared viewers only	25	\$2,349,244
6E001*	Technology for development of items under 6A002c only	8	\$8
6E002*	Technology for production of items under 6A002c only	10	\$1,366
TOTAL		5,637	\$1,684,771,587

NOTES: (1) To give the reader the broadest perspective of the items covered, Table 1 lists all crime control ECCNs including those for which no license applications were submitted. (2) 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. (3) BIS did not approve any applications during the relevant period for crime-controlled items under ECCNs 0A983 specially designed implements of torture or 9A980 mobile crime science laboratories.

In fiscal year 2010, the Department of Commerce denied 6 applications for crime control items with a total value of \$604,929.

Table 2: Crime Control Applications Denied, Fiscal Year 2010

ECCN	Description	Applications Denied	\$ Value
0A984	Shotguns	2	\$388,355
0A987	Optical sighting devices	3	\$205,049
3A981	Polygraphs, fingerprint analyzers, cameras, and equipment	1	\$11,525
TOTAL		6	\$604,929

In fiscal year 2010, the Department of Commerce approved 2,722 export license applications valued at \$221.3 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 2009

ECCN	Items Controlled	Applications Approved	\$ Value
0A984	Shotguns and buckshot shotgun shells	954	\$42,541,225
0A986	Other shotgun shells	233	\$20,297,619
0A987	Optical sighting devices for firearms	1,535	\$158,422,215
TOTAL⁶		2,722	\$221,261,059

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:

Rifle Scopes to Russia – On July 29, 2010, Mark Komoroski, owner of D&R Sports Center, was sentenced in U.S. District Court in the Middle District of Pennsylvania to 32 months in prison, a \$10,000 criminal fine, two years supervised release and a \$100

⁶ 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.

special assessment. On January 7, 2008, Komoroski was arrested for knowingly and intentionally exporting Department of Commerce and Department of State controlled rifle scopes to Russia without the required export licenses. In June 2009, Komoroski pled guilty to these charges.

Handcuffs to Various Countries – On May 11, 2010, Master Cutlery Inc., of Secaucus, NJ, pled guilty in U.S. District Court in the District of New Jersey to illegally exporting handcuffs to the United Kingdom and to the introduction of switchblade knives into interstate commerce. The investigation revealed that on numerous occasions, Master Cutlery Inc. illegally exported handcuffs, legcuffs, and thumbcuffs to various consignees located outside of the United States.

Illegal Export of Crime Control Items – On February 9, 2010, Chief United States District Judge Louise Flanagan, Eastern District of North Carolina, accepted a Deferred Prosecution Agreement (DPA) and related settlement for Sirchie Acquisition Company, Ltd. of Youngsville, NC. In exchange, the U.S. Government agreed not to pursue a 10 count Criminal Information unsealed against the company. This DPA was the result of an Office of Export Enforcement (OEE) investigation which determined that the firm's former president violated his previous plea agreement with the U.S. Government for illegally exporting controlled items to the People's Republic of China. Included in this 2005 plea agreement was a Denial Order issued by BIS, which prohibited the former president from being involved, directly or indirectly, in export transactions. Evidence collected during the course of the new investigation showed that the former president had participated in setting prices for a host of products intended to be sold overseas while subject to this Denial Order. Under the terms of the DPA and settlement agreement, Sirchie Acquisition Company agreed to pay a total of \$12.6 million in fines, including \$10.1 million in criminal fines and \$2.5 million in administrative penalties. In addition, the company agreed to cooperate with the Government regarding the ongoing criminal investigation of the former president and to retain an Independent Compliance Monitor to ensure the company's compliance with the DPA. The company also remains under a five-year suspended denial order from BIS.

Sighting Devices to Taiwan and Afghanistan – On September 18, 2009, Aaron Henderson, doing business as Valhalla Tactical Supply, in U.S. District Court in the Southern District of Iowa, pled guilty to violating the International Emergency Economic Powers Act and was sentenced to time served followed by two years of supervised release, and a \$100 payment to the Crime Victims Fund. The guilty plea related to the export of sighting devices to Taiwan and Afghanistan without the required export licenses from the Department of Commerce. OEE, U.S. Immigration and Customs Enforcement, and the Bureau of Alcohol Tobacco and Firearms jointly conducted the investigation.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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 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.⁷ Congress

⁷ 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.

has recognized the usefulness and symbolic value of these controls in supporting U.S. Government policy on human rights issues, foreign availability notwithstanding.

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. This year, there were minor changes made to Regional Stability controls.

On March 25, 2010, BIS published a regulation (75 FR 14335) that added three new entries to the Commerce Control List (CCL) to control certain concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and related software and technology. These three new Export Control Classification Numbers (ECCNs) are 2A984, 2D984, and 2E984 and are subject to Regional Stability (RS2) and Anti-Terrorism (AT1) controls. This equipment is used for screening people, documents, baggage, cargo, and/or mail.

In addition, on June 30, 2010, BIS published a proposed rule (75 FR 37742) that would add a new ECCN 6A981 to the Commerce Control List. This ECCN would control certain passive infrasound sensors because of their military and commercial utility. The proposal includes imposition of Regional Stability (RS2) controls on these items, as well as Anti-Terrorism (AT1) controls. This is a proposed rule that solicited public comments; no licensing requirements have been imposed as yet.

Licensing 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 explosive 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 ECCNs 2A984, 2D984 and 2E984 (explosives detection equipment and related technology), 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 in 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; however, cameras can be subject to a more favorable licensing policy if they are packaged for civil use and destined only for 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, or the United Kingdom. A license is required to export or reexport to Hong Kong any item controlled in 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. Exports 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 Australia, Austria, Belgium, Bulgaria, Canada, 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.

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 some 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 most 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 the this industry sector. Items controlled for regional stability 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 regional stability-controlled exports. Controls on these cameras have resulted in declining sales for U.S. companies in a rapidly growing global market. BIS made the changes to controls on ECCN 6A003.b.4.b cameras 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.

In fiscal year 2010, the Department of Commerce approved 778 license applications for items controlled for RS1 reasons, with a total value of \$115 million. Most of this licensing volume and value is accounted for by exports of thermal imaging cameras in ECCN 6A003 (622 licenses valued at \$102 million). However, the licensing activity for this ECCN is significantly less than last year, when 1,094 licenses valued at \$145 million were approved. This decrease is due to the revision of controls on certain thermal imaging cameras that took effect in May 2009. Two license applications were denied, both of which were for ECCN 6A003 items, with a value of \$51,335.

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 2010:

**Table 1a: Regional Stability Applications Approved, Fiscal Year 2010
RS Column 1 Controls**

ECCN	Description	Number of Applications	Dollar Value
0A919	Military commodities produced outside the U.S. incorporating 6A003b.4.b cameras	38	\$10,965,376
+6A002.a.1, a.2., a.3, c, e	Optical detectors and direct view imaging equipment incorporating image intensifier tube or focal plane arrays	25	\$2,249,244
+6A003.b.3, b.4	Imaging cameras incorporating image intensifiers or focal plan arrays	622	\$102,165,247
+6E001	Technology for the development of RS-controlled items in 6A002, 6A003, and 6A008	8	\$8

+6E002	Technology for the production of RS-controlled items in 6A002, 6A003, and 6A008	10	\$1,366
+7D001	Software for the development or production inertial navigation systems	3	\$2
+7E001	Technology for the development of inertial navigation systems, inertial equipment and specially designed components for civil aircraft	31	\$7,236
+7E002	Technology for the production of inertial navigation systems, inertial equipment and specially designed components for civil aircraft	2	\$50
+7E101	Technology for the use of inertial navigation systems	39	\$100,875
TOTAL		778	\$115,489,404

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. (2) BIS did not approve any applications during the relevant period for RS1-controlled items under ECCNs 6A008.j.1 space-qualified LIDAR equipment; 6A998.b space qualified Laser Radar/LIDAR; 6D001 software for development/production of RS-controlled items in 6A002.a.1, a.2, a.3, c; 6A03.b.3 and 6A008.j; 6D002 software for the use of 6A002.a.1, a.2, a.3, c; 6A03.b.3 and 6A008.j; 6D003.c software for cameras with focal plane arrays; 6D991 software for development/production/use of 6A002.e or 6A998.b; 6D994 software for cameras with focal plane arrays; 6E991 technology for development/production/use of 6A998b; or 7A994 QRS-11 Sensors.

With regard to the economic impact of RS2 controls, explosives detection equipment in ECCN 2A983 and military trainer aircraft and vehicles in ECCN 9A018 account for the bulk of licensing activity. The total licensing volume (approvals) for RS2 controlled items was 779, with a total value of \$498 million.

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 2010:

**Table 1b: Regional Stability Applications Approved, Fiscal Year 2010
RS Column 2 Controls**

ECCN	Description	Number of Applications	Dollar Value
0A918	Military Equipment not on the Wassenaar Munitions List	4	\$21,136
1B018.a	Equipment for production of military explosives	3	\$439,062
+1D003	Software for equipment for production of military explosives	6	\$71,446
2A983	Explosives detection equipment	218	\$203,982,257
2D983	Software for equipment in 2A983	52	\$4,892,477
+9A018.a, b	Military trainer aircraft and vehicles designed or modified for military use	439	\$287,519,464
+9D018	Software for the use of items in 9A018.a.,b	0	\$0
+9E018	Technology for the development or production of items in 9A018.a.,b	57	\$1,212,104
TOTAL		779	498,137,946

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. (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. (3) BIS did not approve any applications during the relevant period for RS2-controlled items under ECCNs 0E918 technology for the development, production or use of bayonets; *1A004.d explosives detection equipment; *1E001 technology for equipment for production of military explosives; 2A984 concealed object detection equipment; 2B018 equipment on

the Wassenaar Munitions List; 2D984 software for equipment in 2A984; 2E983 technology for equipment in 2A983; 2E984 technology for equipment in 2A984; 8A918 marine boilers; or 9D018 software for the use of items in 9A018.a.,b.

With regard to the special regional stability controls in place for Iraq, BIS licensed a total of 29 applications valued at \$238,777,039. The majority of these applications (16 with a value of \$233,308,604) were for ECCN 1C992, oil well perforators. Other ECCNs with activity included 1B999 (9 licenses) and 1C999 (4 licenses). There were no denials for RS controlled items for Iraq in FY 2010.

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 regional stability purposes are almost all subject to multilateral controls for either national security or missile technology 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 decontrolled 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 are continuing 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

In a September 8, 2010 *Federal Register* notice (75 FR 54540), the Department of Commerce solicited public comment on the effectiveness of U.S. foreign policy-based export controls, including controls on Regional Stability items. The comment period on the *Federal Register* notice closed on October 8, 2010. 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 2010, 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 regional stability purposes may be obtained from foreign sources. However, in many cases there are overlapping multilateral national security (NS) controls on many RS-controlled items. In fact, most of the commodities, related software, and technology controlled for regional stability purposes are also subject to multilateral controls for either national security or missile technology 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. The Department completed a comprehensive study of the industry's condition, including data on foreign availability, in 2006 and found a growing market for thermal imaging cameras in commercial areas, including astronomy, firefighting, medical imaging, hunting, and wildlife observation. The study also found that U.S. exports of imaging and sensor products had grown steadily since 2001, but due to increasing competition from the European Union and Japan, U.S. market share has declined. In addition, there was a sharp decline in the value of U.S. exports of uncooled

infrared (thermal) imaging cameras, while the global market for such products has steadily increased. These cameras are used in the commercial electronics, medical, and automotive industries, and also for firefighting, search and rescue, and industrial safety purposes. U.S. manufacturers cite overly restrictive U.S. export controls as a key reason for this decline, noting that foreign competitors face far less restrictive licensing requirements. 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. This regulation eliminated controls on 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

Pursuant to Section 6(j) of the Export Administration Act of 1979, as amended (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.⁸ Additionally, the United States maintains broad controls, and in some cases comprehensive embargoes, 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. Controls imposed for anti-terrorism reasons are identified in the Export Administration Regulations (EAR) as anti-terrorism (AT) controls.

Since December 1993, the United States has reviewed license applications involving the export or reexport of five categories of dual-use items to certain 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. (See License Requirements and Licensing Policy, below, for a description of these categories.) Specifically, on December 28, 1993, the Acting Secretary of State determined that these items, if exported or exported to military, police, or intelligence organizations, or to other sensitive end users in a designated terrorist-supporting country, could make a significant contribution to that country's military potential or could enhance its ability to support acts of international terrorism. As a result, any such export or reexport is subject to a 30-day Congressional notification period prior to approval. The United States continues to control exports and reexports of such items to other end users, as well as exports and reexports of items not specifically included in these five categories, to 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 such determination, certain items are controlled for AT reasons

⁸ *On October 11, 2008, the designation of North Korea was rescinded, although most export control requirements continue to 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).*

pursuant to Section 6(j) of the EAA, while others are controlled pursuant to Section 6(a). 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 Commerce Control List (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 “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), the Departments of Commerce and State must notify the appropriate Congressional committees 30 days before issuing a license, 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.

The following items are controlled pursuant to Section 6(j) to military, police, intelligence, and other sensitive end users in all designated terrorist-supporting countries:

- 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).

Transactions involving exports or reexports of items controlled pursuant to Section 6(j) to military or other sensitive end users in all designated terrorist-supporting countries are subject to a general policy of denial. Pursuant to Section 6(a) of the EAA, the Department of Commerce requires a license for the export or reexport of the items specified above to non-sensitive end users in all designated terrorist-supporting countries for AT reasons. Such exports or reexports 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 continue in force.

Moreover, as described further in Chapter 5, the United States maintains additional controls on exports and reexports to Cuba, Iran, Sudan, and Syria. As a result, the U.S.

Government reviews license applications for exports and reexports of most items to these countries under a general policy of denial, with limited exceptions.

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, Sudan, and Syria, anti-terrorism 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 these AT-controlled items from other countries. The Secretary has further 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 do restrict access by these countries and persons to U.S.-origin commodities, technology, and software, and demonstrates 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 overall U.S. policy toward the designated terrorist-supporting countries. The Secretary has further 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 in countries of concern.

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. The AT controls maintained on designated terrorist-supporting countries as a whole have had some impact on U.S. industry. The economic impact of broader controls maintained on Cuba, Iran, Sudan, and Syria is described further in Chapter 5. On the whole, 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, gather leads on activities of concern, and conduct end-use checks and Sentinel visits to verify end use and end users of U.S. commodities. 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:

Aircraft Parts To Iran – On July 20, 2010, Baktash Fattahi was sentenced in U.S. District Court for the Southern District of Florida to 35 months in prison, three years supervised release, and a \$100 special assessment. On March 10, 2010, Fattahi pled guilty to one count of conspiracy to violate the International Emergency Economic Powers Act, the Arms Export Control Act, and the Iranian Transaction Regulations for his role in transshipping commercial and military aircraft parts to Iran. Fattahi was one of the parties associated with the Kesh Air and Orion Aviation diversion network, and operated out of the United Arab Emirates.

Aircraft Components to Iran – On September 24, 2009, Aviation Services International BV (ASI), an aircraft supply company in the Netherlands; Robert Kraaiipoel, Director of ASI, Neils Kraaiipoel, sales manager of ASI; and Delta Logistics pled guilty in the U.S. District Court for the District of Columbia to charges related to a conspiracy to illegally export aircraft components and other U.S.-origin commodities to entities in Iran, via the Netherlands, the United Arab Emirates and Cyprus. Between October 2005 and October 2007, the defendants received orders from customers in Iran for U.S.-origin items, contacted companies in the United States, and negotiated purchases on behalf of the Iranian customers. The defendants provided false end user certificates to U.S. companies to conceal the true end users in Iran. The defendants caused U.S. companies to ship items to ASI in the Netherlands or other locations in the United Arab Emirates and Cyprus which were then repackaged and transshipped to Iran. The Bureau of Industry and Security's Office of Export Enforcement (OEE), U.S. Immigration and Customs Enforcement, Defense Criminal Investigative Service and the Federal Bureau of Investigation jointly conducted the investigation.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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, on 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, although 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 terrorist-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 entities 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.⁹ Congress specifically excluded AT controls from foreign availability assessments otherwise required by the Act, 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.

⁹ 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 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, and General Order No. 2 to Part 736)

Export Control Program Description

This Chapter discusses the Department of Commerce's implementation of comprehensive and partial embargoes, 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 embargoes on Cuba, Iran, Sudan, Syria, and certain designated terrorist persons or groups. 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 or entities, including those engaged in the proliferation of weapons of mass destruction. See also Chapter 13 for a discussion of the Entity List.

Licensing Requirements and Licensing Policy

Certain Designated Parties

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 parties 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 Export Administration Regulations (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 parties 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. 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 entities 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;
- some 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 \$800¹⁰,

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 support for the Cuban people and 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;

¹⁰ *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.)*

- 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
- temporary 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 does not restrict exports of these items and 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
- when the U.S. Government determines it would be 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), but also through other provisions, including provisions imposing explicit export and import prohibitions relative to Iran. Title I does not require changes to BIS regulations or practice because BIS does not currently process license applications for exports to Iran other than for deemed exports (see below). CISADA Title III requires the President to designate countries as Destinations of Diversion Concern if they allow “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, within 45 days after reporting a country as a Destination of Diversion Concern. No country has yet been designated a Destination of Diversion Concern under CISADA.

OFAC administers the U.S. Government’s comprehensive trade and investment embargo 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 OFAC regulations. Certain trade activities by non-U.S. persons, including some reexports, are also prohibited by OFAC.

The Department of Commerce imposes license requirements for exports and reexports to Iran of most items on the Commerce Control List (CCL). The Iran-Iraq Arms Non-Proliferation Act of October 23, 1992, 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 the Act. In some cases, the EAR impose license requirements on items designated as EAR99 that are (1) destined to end users listed in either the EAR or in OFAC’s list of Specially Designated Nationals, or (2) destined to end uses prohibited by Part 744 of the EAR. The license requirements for items designated as EAR99, because they are not specific to Iran, are listed in either this Chapter’s description of controls on Specially Designated Nationals, 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 in the following circumstances: (1) the license is for the deemed export of technology subject to the EAR to Iranian nationals in the United States; 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.

BIS takes enforcement action against violations of the Iran-related provisions of the EAR. To reinforce controls administered by the Department of the Treasury, 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 is prohibited by the Department of the Treasury’s Iranian Transactions Regulations and not authorized by OFAC.

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 Commerce Control List 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 Commerce Control List for United Nations Embargo (UN) reasons;
- items on the Commerce Control List 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

On October 11, 2008, the Secretary of State rescinded North Korea’s designation as a state sponsor of terrorism. However, the rescission does not affect other sanctions against North Korea based on its nuclear and ballistic missile tests, proliferation activities, and human rights violations; these will continue to apply on the basis of other relevant laws and regulations. Consistent with UN Security Council Resolutions 1718 and 1874, and as set forth in Section 746.4 of the EAR, BIS still 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.

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.
- 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

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.

Pursuant to Executive Orders 13067 (November 3, 1997) and 13412 (October 13, 2006), the Department of the Treasury maintains trade restrictions on exports and reexports to Sudan. OFAC also requires a license for the export of many EAR99 items to Sudan. However, Executive Order 13412 eased the licensing requirements with respect to exports to Southern Sudan, with limited exceptions. The Department of the Treasury is

solely responsible for licensing the export of agricultural and medical items not listed on the CCL to Sudan under TSRA or, in the case of EAR99 agricultural equipment, non-TSRA specific licensing.

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 (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, as specified in General Order No. 2, which was published in the *Federal Register* on May 14, 2004 (69 FR 26766), and which is located in Supplement No. 1 to Part 736 of the EAR.

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" of technology or source code designated as EAR99. Additionally, certain categories of items are authorized to go 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;
- temporary sojourn of certain civil aircraft reexported to Syria;

The Department of Commerce generally denies license applications for exports or reexports to Syria. However, 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 include 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 embargoes on the export of certain arms and related materiel to several countries, geographic regions, or entities within certain countries. UN embargoes, or partial embargoes, are currently in place for the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iraq, Lebanon, Liberia, North Korea, Sierra Leone, 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, pursuant to United Nations Security Council Resolution 1823.

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

A. The Purpose of the Controls

Certain Designated Parties

The purpose of controls on designated terrorist persons 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 parties to undertake activities that support terrorism or contribute to the development of WMD.

The purpose of the Burma controls is to impose economic sanctions on political and military leaders and other parties that contribute to civil unrest and suppression of basic rights and freedoms in that country. These controls seek to prevent the acquisition of items by regimes or entities that may use the items to carry out activities that are or would be detrimental to U.S. foreign policy interests.

Cuba

The United States imposed an embargo on Cuba over four 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 would be useful in enhancing Iran's terrorist-supporting capabilities and to address other U.S. foreign policy concerns, including nonproliferation, human rights, and regional stability. By restricting the export of items with 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 individuals and entities engaged in activities that are contrary to the foreign policy interests of the United States and/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. embargo 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 embargo 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. U.S. export controls reflect U.S. opposition to these activities. The controls also promote other U.S. foreign policy interests, including the promotion and protection of human rights and the encouragement of regional stability.

United Nations Security Council Arms Embargoes

BIS expects to implement controls on arms-related items to the Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Iraq, Lebanon, Liberia, North Korea, Sierra Leone, 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 entities access to resources for use in their unacceptable activities and purposes. 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 Parties

The Secretary has determined that foreign policy controls will thwart the access that these persons and groups 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 embargo 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 instigation 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 and the Multinational Force in Iraq 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 and Syrian interference in Lebanon.

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, Iraq, Lebanon, Liberia, North Korea, Sierra Leone, 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, nor will any adverse reaction by other countries 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 regulations, 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 Parties

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 implements these 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. 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. As part of the U.S. response to the DPRK's March 2010 sinking of the South Korean naval vessel Cheonan, the President signed a new executive order that targets individuals and entities that support North Korea's involvement in illicit activities for sanctions. This action builds upon and is consistent with UN Security Council Resolutions 1718 and 1874. Five North Korean entities and one individual have been sanctioned under the new executive order.

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

In 1997, the United States imposed an embargo on Sudan in response to credible evidence that it assisted international terrorist groups, destabilized neighboring governments, and violated human rights. Although the Government of Sudan has cooperated with U.S. counterterrorism efforts, the United States will not fully normalize

relations with Sudan until, among other steps, Sudan allows for the full implementation of the 2005 Comprehensive Peace Agreement including the January 9, 2011 referendum on self-determination for Southern Sudan and also has taken the necessary 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, and refrain from interfering in Lebanon's internal affairs. 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, Iraq, Lebanon, Liberia, North Korea, Sierra Leone, 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 Parties

The Department of Commerce did not review any license applications for the particular parties designated by the Treasury Department in fiscal year 2010. 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. There has been a general decline in the number of licenses and notices issued since that time.

The increase in approved export license applications to Cuba from 1998 through 2002 can be attributed to changes in U.S. export policies made during the late 1990s, including the resumption of direct flights, exports of medicines and medical supplies and equipment, exports of food and certain agricultural commodities, and the expansion of agricultural commodities eligible for export authorization under the procedures specified in License Exception AGR to the Cuban Government.

The decline in the number of approved licenses and notices to Cuba since 2002 may be attributable to Cuba's economic difficulties and Cuban efforts to diversify import suppliers, particularly with the objective of strengthening strategic geopolitical relationships. Although the number of licenses and notices has generally continued to decline since 2002, the dollar value of the exports authorized has actually increased. For example, although the number of Agricultural License Exception notices issued in fiscal year 2010 actually dropped by 37, the dollar value of the agricultural exports increased by about \$500 million over the previous year. It is important, however, to note that the value of the licenses is the maximum that could be shipped and usually not the actual value of the goods shipped.

In fiscal year 2010, the Department of Commerce approved 246 license applications valued at over \$935 million for Cuba. There was a decrease in the number and value of license applications approved in fiscal year 2010 in comparison to fiscal year 2009. This decrease may reflect a worsening economic climate in Cuba. It also reflects a return to the general licensing trend following an influx of license applications submitted in the first quarter of fiscal year 2009 for the export of humanitarian aid to Cuba in response to three hurricanes that struck the island. Of note, this response to the hurricanes illustrates the U.S. Government's commitment to ensure that export controls do not hinder efforts to provide humanitarian aid to the Cuban people.

In fiscal year 2010, the Department returned without action 123 license applications, valued at over \$1 billion, and rejected 7 license applications, valued at over \$577,000. Errors and deficiencies were the primary reasons for the number of returned applications. The Department did not revoke any previously valid licenses during this period. Also during fiscal year 2010, the Department issued 142 notices of authorization valued at approximately \$3.7 billion under License Exception AGR. The Department of Commerce and reviewing agencies had no objections to these notices.

Table 1: Approved Commerce Export License Applications and License Exception AGR Notifications Authorized for Cuba, Fiscal Years 2001-2010

Fiscal Year	Number of Applications / Notifications	Total Value in U.S. Dollars
2001 ¹¹	241	\$454,908,260
2002	582	\$2,521,457,648
2003	528	\$2,801,868,688
2004	537	\$3,096,634,000
2005	483	\$3,091,221,021
2006	452	\$2,840,600,000
2007	364	\$3,523,536,224
2008	348	\$4,486,954,924
2009	465	\$4,417,538,817
2010	388	\$4,659,254,250

Other countries have not imposed restrictions on their exports to Cuba comparable to the U.S. embargo. According to the Central Intelligence Agency's (CIA) *World Factbook 2010*, Cuba imported an estimated \$9.0 billion in commodities in 2009 (the most recent year for which statistics are available), down from \$14.5 billion the year before. Leading Cuban imports included petroleum, food, machinery and equipment, and chemicals. Cuba's leading suppliers were Venezuela (31.5 percent), the People's Republic of China (15.5 percent), Spain (8.3 percent), and the United States (6.9 percent, an increase of 0.3 percent over 2008).

Iran

The U.S. Government maintains a policy of denial for license applications for exports of items on the CCL to Iran, consistent with the provisions of the Iran-Iraq Arms Non-Proliferation Act of 1992, contained in the National Defense Authorization Act of Fiscal Year 1993 (NDAA), and the U.S. trade and investment embargo of 1995.

In the early 1990s in response to Iran's removal of certain import restrictions, and prior to the NDAA and the imposition of the embargo, U.S. exports to Iran rose sharply. From 1991 through 1994, U.S. exports to Iran totaled close to \$2.2 billion, making the United States the sixth-largest exporter to Iran during this period. Such exports, however, amounted to only five percent of Iran's total imports and less than one percent of overall U.S. exports. As a result of the denial policy mandated by the NDAA and the 1995 U.S. trade and investment embargo, U.S. exports to Iran fell dramatically. In 2001, as the

¹¹ Notifications under License Exception AGR first became available in 2001.

result of the implementation of TSRA, the U.S. Government could authorize exports and reexports of food, agricultural equipment, medicine, and medical supplies and equipment. According to the U.S. Census Bureau statistics, total U.S. exports to Iran were valued at \$280 million in 2009. The top U.S. commodities exported to Iran 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” (transfers of controlled U.S. technology to Iranian nationals in the United States). As noted in Table 2, the Department of Commerce approved 29 deemed export licenses for Iranian nationals during fiscal year 2010. Deemed export licenses reflect a nominal value of technology and source code transferred to employees or students.

Table 2: Approved Commerce Deemed Export License Applications for Iran, Fiscal Years 2001-2010

Fiscal Year	Number of Applications
2001	19
2002	10
2003	16
2004	31
2005	31
2006	38
2007	53
2008	49
2009	27
2010	29

Prior to the embargo, 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 2010*, Iran imported an estimated \$57.16 billion worth of industrial raw materials and intermediate goods, capital goods, foodstuffs and other consumer goods, and technical services in 2009. Iran’s leading suppliers were United Arab Emirates (UAE) (15.1 percent), China (13.5 percent), Germany (9.7 percent), South Korea (7.2 percent), Italy (5.3 percent), Russia (4.8 percent), and India (4.1 percent).

The U.S. embargo on Iran has adversely affected U.S. industry. Immediately prior to the embargo's imposition, U.S. exports to Iran totaled close to \$2.2 billion. However, the embargo 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.

In 2009, according to the most recent U.S. Census Bureau statistics available, U.S. exports to Iraq were worth \$1.8 billion. In addition to agricultural commodities, other strong categories of U.S. exports to Iraq included telecommunications equipment, industrial engines and machines, and electronics, as well as military-related items.

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 2010, the Department approved 97 license applications for Iraq, valued at over \$303 million. The number and value of approvals in 2010 increased from 2009, likely due to additional reconstruction activities. The Department returned 28 license applications without action in 2010, valued at nearly \$13.9 million, primarily due to exporters submitting applications for transactions that did not require licenses. In 2010, the Department did not deny any license applications for Iraq.

Table 3: Approved Commerce Export License Applications for Iraq, Fiscal Years 2005-2010

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2005	100	\$206,170,161
2006	88	\$298,795,631
2007	100	\$222,845,105
2008	83	\$138,626,063
2009	84	\$126,241,256
2010	97	\$303,497,298

According to the *CIA World Factbook 2010*, Iraq imported an estimated \$55.4 billion in commodities in 2009 (the most recent year for which statistics are available), up from an

estimated \$50 billion in 2008. Leading Iraqi imports included food, medicine, and manufactures. Iraq's leading suppliers were Turkey (25.0 percent), Syria (17.4 percent), the United States (8.7 percent), the People's Republic of China (6.8 percent), Jordan (4.2 percent), Italy (4.0 percent) and Germany (4.0 percent).

North Korea

A 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 September 1999, as a result of North Korea's actions at that time, President Clinton announced a decision to ease sanctions maintained against North Korea. Implemented in June 2000, the new policy made most U.S. consumer goods, including humanitarian goods and low-level consumer items, eligible for export without a license to North Korea. This change helps to account for the decline in license applications for North Korea from fiscal years 2000-2007, in which the Department approved fewer than ten licenses per year. However, the number of license applications for exports to North Korea increased after 2007 as the U.S. Government imposed additional licensing requirements on North Korea following its test of nuclear devices and ballistic missiles in 2006 and 2009.

In fiscal year 2010, the Department approved 18 license applications, valued at \$3.1 million. The total license value in 2009 was much higher than in 2010, primarily due to a small number of high-value humanitarian exports in 2009 to support North Korean hospitals. The Department of Commerce returned without action 21 license applications in 2010, valued at \$7.6 million. The majority of applications were returned without action 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.

Table 4: Approved Commerce Export License Applications for North Korea, Fiscal Years 2001-2010

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2001	7	\$1,187,232
2002	9	\$2,947,044
2003	0	\$0
2004	3	\$140,625

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2005	3	\$15,665
2006	1	\$217,519
2007	9	\$26,435,444
2008	14	\$802,248
2009	23	\$20,728,077
2010	18	\$3,079,481

The CIA *World Factbook 2010* estimates that North Korean imports totaled \$3.6 billion in 2008 (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 2008 were China (57 percent), South Korea (25 percent), Russia (3 percent) and Singapore (3 percent).

Persons Sanctioned by the State Department

The impact on U.S. industry of these controls is minimal as they target only certain entities 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 remain exempt from Department of Commerce license requirements. As a result, BIS issued few licenses for exports to Sudan between 1998 and 2004.

In 2005, licensed exports to Sudan began to increase as a result of United Nations Security Council Resolution 1590, which established the United Nations Mission in Sudan, and the growth of humanitarian relief efforts following the signing of the Comprehensive Peace Agreement, which ended the civil war in Sudan. The Department of Commerce approved nearly 50 percent more license applications for exports and

reexports to Sudan in 2010 than in 2009, largely attributable to preparations for the scheduled January 2011 referendum on self-determination for southern Sudan and on the future of Abyei as well as a means to encourage the Government of Sudan in Khartoum to refrain from impeding the southern Sudan referendum.

In fiscal year 2010, the Department of Commerce approved 162 license applications for Sudan, valued at \$66.6 million. During the same period, 47 applications valued at \$14 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 2010, the Department of Commerce denied two license applications valued at approximately \$516,000. No licenses issued by the Department for export or reexport to Sudan were revoked during fiscal year 2010.

Table 5: Approved Commerce Export License Applications for Sudan, Fiscal Years 2001-2010

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2001	0	\$0
2002	0	\$0
2003	0	\$0
2004	4	\$10,646,641
2005	29	\$20,246,720
2006	42	\$26,955,168
2007	64	\$40,207,142
2008	103	\$58,287,788
2009	111	\$42,796,755
2010	162	\$66,630,426

U.S. Census Bureau statistics show that in 2009, U.S. exports to Sudan were valued at \$78.4 million, and consisted primarily of agricultural exports. The *CIA World Factbook 2010* estimates that Sudan's total imports from all sources were valued at \$8.253 billion in 2009. Leading suppliers to Sudan were China (21.87 percent), Saudi Arabia (7.22 percent), Egypt (6.1 percent), India (5.53 percent), and the UAE (5.3 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. The number of license applications that the Department of Commerce approved to Syria declined from 2003 to 2004 following implementation of the SAA but doubled in 2005, apparently because license applicants better understood that certain categories of items, particularly medical devices and telecommunications equipment, were subject to policies of case-by-case review based on the Presidential waiver exercised when the SAA was implemented.

The number of approved license applications for exports and reexports to Syria has been trending upward in recent years, while dollar value remained relatively steady until 2007. In fiscal year 2007, a select few applications for specific telecommunications exports contributed to a substantial dollar value increase over the previous year. The number of licenses and their dollar values shifted back toward typical figures in fiscal year 2008. The number and dollar value of approved license applications increased in fiscal year 2009, due largely to increased exports of medical items. The spike in dollar value was caused by a select few exceptionally large medical applications.

In fiscal year 2010, there was a dramatic 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 results 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.

In fiscal year 2010, the Department approved 401 license applications, valued at approximately \$723 million for Syria. Also during fiscal year 2010, the Department returned without action 166 license applications, valued at over \$312 million, and denied 8 license applications, valued at over \$666 million. The Department did not revoke any previously valid licenses.

Table 6: Approved Commerce Export License Applications for Syria, Fiscal Years 2001-2010

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2001	106	\$70,269,323
2002	95	\$108,101,460
2003	127	\$200,664,118

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
2004	100	\$246,979,100
2005	210	\$325,088,347
2006	168	\$257,417,642
2007	231	\$1,036,749,878
2008	215	\$247,483,495
2009	339	\$1,475,405,252
2010	401	\$723,348,160

Only the United States maintains comprehensive sanctions on Syria. According to the CIA *World Factbook 2010*, Syria imported an estimated \$13.3 billion in commodities in 2009. 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 (10.1 percent), China (9.95 percent), Turkey (6.97 percent), Egypt (6.44 percent), the UAE (4.97 percent), Italy (4.93 percent), Russia (4.92 percent), Germany (4.38 percent), and Lebanon (4.12 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, Iraq, Lebanon, Liberia, North Korea, Sierra Leone, 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, pursuant to Resolution 1823.

5. *Effective Enforcement of Controls.* The Secretary has determined 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 embargoes 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 2010. For example:

Aircraft to Iran – On May 11, 2010, Balli Aviation Ltd., a subsidiary of the United Kingdom-based Balli Group PLC, was sentenced in U.S. District Court in the District of Columbia to pay a \$2 million fine and to serve a five-year corporate period of probation. On February 5, 2010, Balli Aviation Ltd pled guilty to a two-count criminal information for its actions arising out of the illegal export of commercial Boeing 747 aircraft, an item controlled for anti-terrorism reasons, from the United States to Iran. On February 4, 2010, Balli Group PLC and Balli Aviation entered a civil settlement with BIS and OFAC, which includes a civil penalty of \$15,000,000, of which \$2,000,000 is suspended pending no further export control violations. In addition, a five year denial of export privileges was imposed on Balli Aviation and Balli Group which will be suspended provided that during the suspension period neither Balli Aviation nor Balli Group commits any future violations and has paid the civil penalty. Under the terms of the settlement Balli Group and Balli Aviation will also have to submit the results of an independent audit of its export compliance program to BIS and OFAC for each of the next five years.

Goods to Syria, Iran, and Sudan – On August 6, 2009, DPWN Holdings (USA), Inc. (formerly known as DHL Holdings (USA), Inc.) and DHL Express (USA), Inc. (collectively “DHL”), agreed to pay a civil penalty of \$9,444,744 to settle allegations that DHL unlawfully aided and abetted the illegal export of goods to Iran, Syria, and Sudan, and failed to comply with record keeping requirements of the Export Administration Regulations and Office of Foreign Assets Control (OFAC) Regulations. DHL also agreed to conduct external audits covering exports to Iran, Syria, and Sudan from March 2007 through December 2011. OEE and OFAC jointly conducted this investigation.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. A detailed review of all public comments received can 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 Parties

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 that 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.

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 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 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, support for terrorism, the flow of foreign fighters through Syria destined for Iraq, and Syrian nuclear, missile, and chemical/biological programs. 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.

E. Alternative Means

The U.S. Government imposes embargoes and sanctions in an effort to make a strong statement against a particular country's policies or a person's actions. Restrictions on exports can supplement other actions that the U.S. Government takes to change the behavior of the target countries and persons, including such actions as severing diplomatic relations, banning imports into the United States, seeking UN denunciations, and curtailing or discouraging bilateral educational, scientific, or cultural exchanges. The U.S. Government has had some success using these alternative means to reach the intended foreign policy objectives. Nonetheless, these trade sanctions remain a critical part of the U.S. Government's foreign policy. U.S. Government embargoes and sanctions complement diplomatic measures and continue to be used to influence the behavior of these countries.

F. Foreign Availability

The foreign availability of items controlled under Section 6(a) of the EAA has been considered by the Department of Commerce. In general, numerous foreign sources of commodities and technology similar to those subject to these controls are known, especially for items controlled by the U.S. Government. Although the embargoes and comprehensive sanctions described in this Chapter are widely followed and many have significant multilateral support, the U.S. Government's continued use of embargoes and sanctions serve foreign policy interests that override the impact of foreign availability.

CHAPTER 6

Toxic Chemicals, Chemical Precursors, and Associated Equipment, Technology, and Software (Sections 742.2, 742.18, 744.4, 744.6, and 745)¹²

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) by maintaining controls on certain chemicals.¹³

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.

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 Commerce Control List (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 the following items: all chemical weapons precursor and

¹² Chapter 7 of this report addresses U.S. biological controls.

¹³ 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.

intermediate chemicals, as identified on the AG common control list; technology for the development, production, and/or disposal of such items; relevant process control software, and; the facilities designed to produce such chemicals.

The U.S. Government 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/or 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.

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, including Canada, 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 and 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 2010 Changes

On March 23, 2010 the Department of Commerce published a final rule in the *Federal Register* (75 FR 13672) to implement both the understandings reached at the September 2009 plenary meeting of the Australia Group and a decision that was adopted under the AG intersessional silent approval procedures in October 2009. Specifically, this final rule amends Export Control Classification Number (ECCN) 2B350 (Chemical manufacturing facilities and equipment) on the CCL to clarify the use of the terms “nominal size” and “alloy” in connection with items controlled under this ECCN.

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 2010, the Department of Commerce approved 2668 license applications, valued at \$1,254,165,982 for the export or reexport of chemical precursors and equipment. The majority of the value of these approvals (80 percent) was for precursor chemicals controlled under ECCN 1C350, which are chemicals that have many commercial uses. The remaining value of these approvals (20 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 \$39,630 and returned without action 265 license applications valued at \$209,462,504. 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 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 this recent example summarized below:

Triethanolamine to a Variety of Countries – Between November 2001 and July 2006, Buehler Limited of Lake Bluff, Illinois, a global manufacturer of scientific equipment and supplies for use in materials research and analysis, made 80 exports of a product called “Coolmet,” a mixture containing triethanolamine (TEA) that is used as a lubricant with cutting tools, to various destinations including China, Hong Kong, Thailand, India, Brazil and Israel, without the required BIS licenses. Additionally, on one occasion in August 2005, the company's German affiliate reexported Coolmet from Germany to Iran without the required U.S. government authorization. TEA is a Schedule 3 chemical precursor and is controlled for chemical/biological/anti-terrorism, and chemical weapons reasons. On December 12, 2008, Buehler Limited agreed to pay a \$200,000 civil penalty.

Butterfly and Check Valves to a Variety of Countries – Between 2003 and 2007, FMC Technologies, Inc., headquartered in Houston, Texas, exported and reexported to a variety of countries butterfly and check valves classified under Export Control Classification Number 2B350 and controlled for reasons of chemical and biological weapons proliferation without the required BIS licenses. On August 13, 2009, FMC Technologies, Inc. agreed to pay a \$610,000 civil penalty.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (74 FR 46088), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 8, 2010. 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.

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 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/or 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)¹⁴

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).¹⁵

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.

Licensing 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 Commerce Control List (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

¹⁴ Chapter 6 of this report addresses U.S. chemical controls.

¹⁵ 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.

microorganisms and plant pathogens, and the technology for their production and/or 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 embargoed destinations identified in Part 746 of the Export Administration Regulations (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 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 2010 Changes

On February 22, 2010, the Department of Commerce published a final rule in the *Federal Register* (75 FR 7548) amending the EAR to update the controls on certain select agents identified in Export Control Classification Number (ECCN) 1C360 on the Commerce Control List (CCL) (Supplement No. 1 to Part 774 of the EAR) and to make a correction to ECCN 1E998. The ECCN 1C360 updates are based on recent changes to the lists of select agents and toxins that are separately maintained by the Animal Plant and Health Inspection Service (APHIS), U.S. Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS). APHIS and CDC maintain controls on the “possession, use, and transfer within the United States” of certain select agents and toxins, while BIS controls “exports” of these select agents and toxins.

On March 23, 2010, the Department of Commerce published a final rule in the *Federal Register* (75 FR 13672) to amend ECCN 1C351 (Human and zoonotic pathogens and “toxins”) on the CCL to reflect the AG decision, adopted under the AG intersessional silent approval procedures, to remove “white pox” virus from its list of biological agents.

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 2010, the Department of Commerce approved 1,072 license applications, valued at \$27,319,393 for the export or reexport of biological agents, vaccines and equipment. The majority of the value of these approvals (87 percent) was for biological processing and handling equipment controlled under Export Control Classification Number (ECCN) 2B352. The Department denied 1 license application valued at \$814,800 and returned without action 79 license applications valued at \$ 4,252,983. 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 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. A detailed review of all public comments received can 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)).

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 a total of 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 missile systems and major subsystems, production facilities, and production equipment 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.

Licensing 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 Commerce Control List (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 2010 Changes

The annual Plenary for the MTCR was held in November 2009 in Rio De Janeiro, Brazil. At the Plenary, the MTCR partners discussed the direct relevance of UN Security Council Resolutions (UNSCRs) 1718 (North Korea) and 1737 and 1747 (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 in conjunction with the Plenary to discuss changes to the MTCR control list, including adding controls for copper infiltrated tungsten, silver infiltrated tungsten, and tungsten alloys in solid form (including dimensional aspects) when these items are for fabrication of missile components; clarifying controls on high energy density materials usable in missile systems, excluding certain widely used fuels and biofuels; and deleting turbo-compound engines from the controls as this term is not used by the international community to refer to turbojet or turbofan engines. On April 20, 2010, the Department of Commerce published a final rule in the *Federal Register* (75 FR 20520) amending the EAR to reflect the changes to the MTCR Annex that were accepted by MTCR member countries at the November 2009 Plenary in Rio de Janeiro.

The MTCR held an intercessional Technical Experts Meeting (TEM) in London from June 9-11, 2010 to discuss changes to the MTCR control list, including revised controls for hybrid rocket motors and clarifying controls on ferrocene derivatives.

The annual Reinforced Points of Contact (RPOC) meeting for the MTCR was held from June 14-15, 2010 in Paris. At the RPOC, the MTCR partners evaluated their activities over the previous six months and reaffirmed their determination to strengthen efforts to discourage missile programs and activities of proliferation concern. They also discussed regional missile proliferation issues, outreach activities by Partners, membership issues and preparations for the 2010 Plenary. There was also an outreach meeting following the RPOC in Paris for several nonmember countries. This meeting was attended by several MTCR Partners and was used as an opportunity to update interested nonmembers on risk assessment in licensing practices.

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. 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 proliferation concern and have cooperated to interdict specific shipments of proliferation concern. 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 2010, the Department of Commerce approved 964 applications, valued at \$1.9 billion dollars, for the export or reexport of missile technology-controlled items. In addition, the Department rejected 16 applications valued at \$26 million and returned without action 52 applications valued at \$104 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 33 applications, valued at \$1.8 million, denied 14 licenses valued at \$18 million, and returned without action 13 applications valued at \$5 million. 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. Recognizing the importance of export enforcement, the MTCR held its ninth Licensing and Enforcement Experts Meeting (LEEM) at the MTCR Plenary in Rio de Janeiro, Brazil, in November 2009.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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 seek to foster the cooperation of non-member countries in limiting the spread of delivery systems for WMD, including 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 aimed at improving export controls and preventing 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

To protect and preserve national security and foreign policy interests, the United States maintains export controls on encryption items. 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 opposed to the United States are not able to conceal hostile or criminal activities.

When dual-use encryption items were transferred from the United States Munitions List (USML) to the Commerce Control List (CCL) on December 6, 1996, a foreign policy reason for control, Encryption Item (EI), was imposed on these items. A license is required to export or reexport EI-controlled items (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.

Licensing 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 June 25, 2010, BIS published amendments to the encryption provisions of the EAR that imposed a new requirement for exporters who produce encryption items to submit a company registration to BIS. As of September 30, 2010, approximately 300 companies had submitted encryption registrations.

Because EI-controlled software remains subject to the Export Administration Regulations (EAR) even when publicly available, License Exception Technology and Software–Unrestricted (TSU) is available for exports of publicly available encryption software after a notification requirement is met. 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 national or federal government bureaucratic agencies for civil use, and to state, provincial or local governments, 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 implement technical review procedures for commercial encryption items and 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 on the items to be controlled with the participating states of the Wassenaar Arrangement or through alternative means. This determination is under review as the electronic commerce industry and the Internet grow, as new security protocols emerge for, among other things, short-range wireless communications, and as the number of countries with the technology to produce highly sophisticated, dual-use encryption products expands.

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 2010, the Department of Commerce processed a substantial number of pre-export encryption review requests for a variety of products with encryption features. This activity continues to reflect the ever-expanding trade in encryption items, and the wide commercial applicability of such items. The Department of Commerce processed 2,080 classification requests for controlled encryption products, components, toolkits, and source code items. The types of products reviewed include commodities and software for desktop and laptop computers, wireless handheld devices, e-business applications, network security, and telecommunications platforms.

Additionally, during fiscal year 2010, the Department of Commerce approved 1,600 license applications for “restricted” encryption items (such as high-end routers and other network infrastructure equipment) and technology. By increasing the use of ELAs, the number of approved encryption license applications was reduced by 7 percent between fiscal year 2009 and fiscal year 2010. In fiscal year 2010, 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 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 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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 Technology Technical Advisory Committee and the Bureau’s other technical

advisory committees as appropriate, regarding encryption policy. The objective of these consultations is to develop updated policy solutions to 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 engaged in electronic commerce in an increasingly networked world. 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. Major industrial partners of the U.S. Government maintain export controls on encryption equipment and technology. U.S. encryption policy reflects continual consultation with other participating states of the Wassenaar Arrangement.

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.

E. Alternative Means

EI foreign policy controls are almost 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 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 world wide, 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 United States Munitions List (USML) to the Commerce Control List (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. 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, 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 2010, the Department of Commerce approved 180 licenses for technology controlled under ECCN 9E003. Most of the 180 licenses approved involved the export of “hot section” technology, of which 39 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 \$1,135,681 in fiscal year 2010. There was no license application rejected involving engine “hot section” technology in fiscal year 2010. In addition, 24 applications involving items valued at a total of \$12 million 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 U.S. Munitions List (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 8, 2010 *Federal Register* notice (75 FR 54540), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. The comment period closed on October 8, 2010. A detailed

review of all public comments received can be found in Appendix I. In addition, comments were solicited from the public through the BIS website.

As needed, the Department of Commerce consults with the Transportation Technical Advisory Committee (TransTAC), 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 has taken the lead in 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 especially 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 established and maintains a Trigger List 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, or software that could be of significance for nuclear explosive purposes (i.e., the Nuclear Referral List (NRL) included in the Commerce Control List (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 the design, development, manufacture, or testing of nuclear weapons or nuclear explosive devices;
 - unsafeguarded nuclear activities, including the design, development, or manufacture 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 the design, construction, fabrication, or operation 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 component and its availability elsewhere;
- the types of nuclear nonproliferation assurances or guarantees given in a particular case; and
- the nonproliferation credentials of the recipient country.

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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 Law¹⁶

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 2010, there were no additions or updates to the NRL.

The following are recent BIS enforcement actions regarding these controls:

Nickel Powders to a Variety of Countries – On 32 occasions between April 2003 and January 2008, New Jersey-based Novamet Specialty Products Corporation (Novamet) exported nickel powders without the required licenses to the People's Republic of China, Singapore, Taiwan, Thailand, India, Israel, the Dominican Republic, and Mexico. Nickel powders are controlled for nuclear nonproliferation reasons. On October 1, 2009, Novamet agreed to pay a \$700,000 civil penalty and to complete an internal export compliance audit and submit the results of that audit to BIS.

Pressure Transducers to a Variety of Countries – Between August 2005 and May 2006, Foxsemicon Integrated Technologies, Inc. (FITI) of Taiwan, aided and abetted by Foxsemicon LLC of San Jose, California, an affiliate of FITI, knowingly made fifteen

¹⁶ *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.*

unlicensed exports of pressure transducers to the People's Republic of China. The transducers are used as spare parts for larger manufacturing systems, and are controlled for nuclear nonproliferation reasons to the People's Republic of China. On September 11, 2009, BIS approved a settlement agreement under which FITI agreed to a \$250,000 civil penalty with \$160,000 of the penalty suspended for one year, and Foxsemicon LLC agreed to pay a \$160,000 civil penalty.

CHAPTER 12

Surreptitious Listening (Section 742.13)

Export Control Program Description and Licensing Policy

On November 20, 2006, the Department of Commerce published an amendment to the Export Administration Regulations (EAR) to impose foreign policy controls on exports of devices primarily useful for the surreptitious interception of wire, oral, or electronic communications, and on related software and technology (71 FR 67034). The U.S. Government maintains these controls in order 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 amendment imposed Anti-Terrorism (AT) controls and created a new foreign policy control, Surreptitious Listening (SL), for devices used for the surreptitious interception of wire, oral, or electronic communications controlled under Export Control Classification Number (ECCN) 5A980. It also imposed the same controls on related software and technology by creating ECCNs 5D980 (software) and 5E980 (technology).

Licensing 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 classified as ECCNs 5A980, 5D980, or 5E980, other than to destinations for which a license is required for AT reasons, for 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 2512 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 2512 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 the imposition 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 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. 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 of: preventing 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; promoting the protection of privacy of oral, wire, or electronic communications; and protecting against threats of terrorism around the world.

Although the availability of comparable goods from foreign sources limits the effectiveness of the surreptitious listening controls, these controls restrict access by the countries and persons subject to these controls 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 toward 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 interests. Most countries are generally supportive of U.S. efforts to prevent unlawful uses of intercepted communications, including uses of intercepted communications by terrorists, and to stop the proliferation of weapons of mass destruction in countries of concern. In addition, the sending or carrying of the devices in foreign commerce is already subject to independent criminal sanction. The imposition of foreign policy-based controls on these devices and related software and technology is not expected to result in any adverse reaction by other countries.

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 discernable economic impact.

In fiscal year 2010, the Department of Commerce approved two applications for the export or reexport of SL controlled items. No applications were rejected. During the same time period, the Department of Commerce made two 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 imposition of foreign policy-based controls on the devices and related software and technology will enhance effective enforcement because the new controls have been introduced pursuant to the export control authorities delegated to the Department of Commerce. The U.S. Government can effectively enforce these controls by focusing on preventive enforcement, using regular outreach efforts to keep industry informed, and gathering leads on activities of concern.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR (75 FR 54540)), 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 8, 2010. 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. BIS did consult with the RPTAC prior to the publication of this rule.

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 the United States' export controls. The United States will consult with other countries as necessary regarding these changes in order to ensure compliance and encourage their efforts to deter terrorism and other criminal activity.

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 the aforementioned 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 best address national security and foreign policy threats to the United States in the post-Cold War era, BIS has adopted export controls that focus on individuals or entities that pose a threat to the national security or foreign policy of the United States and has taken steps to provide additional information to the public about these individuals or 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 companies and individuals identified on the Entity List require a license from the Bureau of Industry and Security (BIS) and that the availability of License Exceptions in such transactions is limited.

Established in 1997, the Entity List provides notice of a prohibition against activities and transactions involving end users and end uses that meet the criteria listed in Sections 744.2, 744.3, 744.4, 744.10, 744.11, and 744.20 of the EAR, unless specifically authorized by BIS. Sections 744.2, 744.3, and 744.4 of the EAR are foreign policy-based end-use controls that prohibit exports, reexports and transfers (in-country) for use in defined nuclear, missile, chemical and biological activities. Sections 744.10, 744.11 and 744.20 are foreign policy-based end user controls that restrict transactions to certain individuals.

Entity List entries specify the license requirements imposed on each listed entity. These license requirements are in addition to any license requirements imposed on the transaction elsewhere in the EAR.

The End User Review Committee (ERC), chaired by the Department of Commerce, implements changes to the Entity List, making all decisions to add entries to the List by majority vote and all decisions regarding removals from the List or changes to a specific entry by unanimous vote. The ERC is composed of representatives of the Departments of Commerce, State, Defense, Energy, and – where appropriate – the Treasury.

Section 744.16 of the EAR provides for a mechanism whereby entities on the Entity List may request their removal from the list or a modification of their status on the list. The ERC conducts an annual review of all entities on the Entity List to correct and update the list.

Summary of 2010 Changes

On February 13, 2010, BIS published a final rule in the *Federal Register* (75 FR 7358) adding ten additional persons to the Entity List on the basis of Section 744.11 of the EAR. All ten of the persons, located in Hong Kong and Taiwan, were added after the ERC determined that they were involved in activities contrary to U.S. national security and foreign policy interests.

On May 28, 2010, BIS published a final rule in the *Federal Register* (75 FR 29884) implementing changes to the Entity List on the basis of the ERC's 2009 annual review of the Entity List. This rule, the first for the 2009 annual review, implemented the result of the annual review of listed entities in eleven destinations: Canada, Egypt, Germany, Hong Kong, Israel, Kuwait, Lebanon, Malaysia, South Korea, Singapore and the United Kingdom. In the rule, one entity, located in Hong Kong, was removed from the Entity List. The rule also implemented two ERC decisions to modify entries on the Entity List by making a correction to the address of an entity located in Egypt and by clarifying the license requirement for an entity located in Israel. On the basis of the 2009 annual review, the ERC determined not to make any changes to the Entity List entries for the remaining eight destinations (Canada, Germany, Kuwait, Lebanon, Malaysia, South Korea, Singapore, and the United Kingdom).

On June 28, 2010, BIS published a final rule in the *Federal Register* (75 FR 36516) adding twenty-four persons to the Entity List on the basis of Section 744.11 of the EAR. The persons added were located in nine destinations: Belarus, China, Hong Kong, Iran, Malaysia, New Zealand, Norway, South Africa and the United Kingdom. The ERC determined to add them to the List on the basis of information indicating that they each diverted items subject to the EAR to China and/or Iran. This rule also removed one person located in Hong Kong from the Entity List. The person was removed as a result of a request for removal submitted by that person.

On December 17, 2010, BIS published a final rule in the *Federal Register* (75 FR 78883) implementing changes to the Entity List on the basis of the ERC's 2009 annual review of the Entity List. This rule, the second for the 2009 annual review, implemented the result of the annual review of listed entities in two destinations: China and Russia. In the rule, six entities, located in Russia, were removed from the Entity List. The rule also implemented ERC decisions to modify entries on the Entity List by clarifying names, adding addresses and/or adding aliases to the entries of nineteen persons in China and two persons in Russia.

BIS will publish a final rule in the *Federal Register* implementing changes to the Entity List on the basis of 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 to implement an export control reform program, including the removal of India's defense and space-related entities from the Entity List. The rule will remove several entities from the Entity List to implement the initial steps in the bilateral export control reform program.

Licensing Policy

The licensing policy for each entity on the Entity List is set by the ERC when an entity is added to the Entity List, and varies from entity to entity. The license review policy is described within each entity'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 U.S. foreign policy controls included for individual entries on the Entity List is to protect and enhance the United States' foreign policy interests by demonstrating U.S. resolve to restrict trade with entities that fail to adhere to acceptable norms of international behavior or whose behavior threatens U.S. interests. Specifically, the purpose of these controls is to focus export control efforts specifically on problematic potential recipients of items that are subject to the EAR, and who may be engaging in activities defined by the criteria currently set forth in Sections 744.2, 744.3, 744.4, 744.10, 744.11, or 744.20. As a result of these controls, the public is put on notice regarding the restrictions placed on exports, reexports, and transfers (in-country) to listed entities. The U.S. Government may conduct prior review and make appropriate licensing decisions regarding proposed exports, reexports and transfers (in-country) to such recipients to the degree necessary to protect its 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 the imposition of foreign policy controls as part of the licensing requirements imposed on individual entries to the Entity List is likely to achieve the intended national security and foreign policy purposes.

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

These license requirements are intended to deter actions contrary to U.S. interests by preventing the acquisition of certain items by parties who might take actions that are detrimental to U.S. policy goals. The United States seeks to prevent the use of U.S.-origin items in connection with such conduct. The controls exercised through the Entity List enable BIS to focus export license requirements more precisely to target specific entities without imposing overly broad license requirements on a large array of items to a large number of 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 works closely 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 publication of entity names on a consolidated 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 the strengthening of 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. Imposing license requirements on clearly identified entities via the Entity List will facilitate the U.S.

Government's identification of actual and potential violations. In addition, listing entities will facilitate industry's compliance with the controls by allowing for a more automated review of proposed transactions, and will facilitate industry efforts to assist the Government in enforcing these controls by allowing industry to know what entities to specifically look for in export transactions.

C. Consultation with Industry

In a September 8, 2010 *Federal Register* notice (75 FR 54540), 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 8, 2010. 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 parties on the Entity List and those proposed for addition. These consultations are based on specific 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. efforts in the export and reexport control and enforcement arena.

E. Alternative Means

The United States continually reviews the means by which it can 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 goods or technologies by parties listed on the Entity List. However, the United States is sending a strong message by publishing and enforcing this Entity List that may deter other suppliers from participating in transactions with listed entities. Additionally, the United States intends to work in cooperation with other governments to curtail transactions by other 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 8, 2010 (75 FR 54540). 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 8, 2010. BIS received one comment from the Boeing Company (Boeing). BIS has made this comment 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 comment received.

Industry Comments

On October 8, 2010, Boeing submitted comments supporting the President's announced intent to reform export controls. Boeing expressed interest that the reform effort include foreign policy-based controls, stating its belief that those controls are overly complex and burdensome and affect the competitiveness of U.S. exporters. Boeing highlighted its belief that the foreign availability of comparable items that are not subject to the same level of controls by foreign countries puts U.S. exporters at a disadvantage.

Boeing contended that the intended foreign policy purposes of the export controls are not necessarily clear to industry and that the controls could result in unintended consequences, such as fostering of "gray" markets, encouraging foreign competition, and designing-out of U.S. parts and components in foreign-made commodities.

Boeing recommended that the U.S. Government remove foreign policy-based export controls to the maximum extent possible, and that it place more of a priority on the use of diplomacy, government-to-government contacts, harmonization of control regimes with other countries, and other means to meet the intended foreign policy objectives. Additionally, Boeing suggested that foreign policy-based export controls should automatically expire after a specified period of time, absent annual review of those controls, as well as overall streamlining of the U.S. export control system.

APPENDIX II

Multilateral Export Control Regimes in 2010

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)	Rep. of Korea (South Korea)	Rep. of Korea (South Korea)	Rep. of Korea (South Korea)
Romania	Romania		Romania
Russian Federation		Russian Federation	Russian Federation
Slovak Republic	Slovak Republic		Slovak Republic
Slovenia	Slovenia		Slovenia
South Africa		South Africa	South Africa
Spain	Spain	Spain	Spain
Sweden	Sweden	Sweden	Sweden
Switzerland	Switzerland	Switzerland	Switzerland

WASSENAAR	AG	MTCR	NSG
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 2010**

Publication Date	Federal Register Citation	Rule
12/17/2010	75 FR 78883	Implementation of Additional Changes from the 2009 Annual Review of the Entity List
11/01/2010	75 FR 67029	Amendment to Existing Validated End User Authorization in the People's Republic of China: Semiconductor Manufacturing International Corporation
10/12/2010	75 FR 62462	Additions to the List of Validated End Users in the People's Republic of China: Hynix Semiconductor China Ltd., Hynix Semiconductor (Wuxi) Ltd., and Lam Research Corp.
10/13/2010	75 FR 62675	Wassenaar Arrangement 2009 Plenary Agreements Implementation: Categories 1, 2, 3, 4, 5 Part I, 6, 7, and 9 of the Commerce Control List, Definitions, Reports; Correction
09/07/2010	75 FR 54271	Wassenaar Arrangement 2009 Plenary Agreements Implementation: Categories 1, 2, 3, 4, 5 Part I, 6, 7, and 9 of the Commerce Control List, Definitions, Reports
07/27/2010	75 FR 43819	Clarification of Grace Period for Encryption Registration Requirement
07/15/2010	75 FR 41078	Revisions to the Commerce Control List to Update and Clarify Crime Control License Requirements
06/30/2010	75 FR 37742	Addition of New Export Control Classification Number 6A981 Passive Infrasound Sensors to the Commerce Control List of the Export Administration Regulations, and Related Amendments. (Proposed rule with request for comments)
06/28/2010	75 FR 36516	Addition and Removal of Certain Persons on the Entity List: Addition of Persons Acting Contrary to the National Security or Foreign Policy Interests of the United States; Removal of Person Based on Removal Request
06/28/2010	75 FR 36511	Revisions to the Export Administration Regulations Based Upon a Systematic Review of the Commerce Control List: Additional Changes
06/25/2010	75 FR 36482	Encryption Export Controls: Revision of License Exception ENC and Mass Market Eligibility, Submission Procedures, Reporting Requirements, License Application Requirements, and Addition of Note 4 to Category 5, Part 2
05/28/2010	75 FR 29884	Implementation of Changes from the 2009 Annual Review of the Entity List
05/14/2010	75 FR 27185	Revisions to the Authorization for Validated End User Applied Materials China, Ltd.
05/10/2010	75 FR 25763	Addition to the list of Validated End Users: Advanced Micro Devices China, Inc.
04/20/2010	75 FR 20520	Revisions to the Export Administration Regulations Based on the 2009 Missile Technology Control Regime Plenary Agreements

03/25/2010	75 FR 14335	Revisions to the Export Administration Regulations to Enhance U.S. Homeland Security: Addition of Three Export Control Classification Numbers (ECCNs) and License Review Policy
03/23/2010	75 FR 13672	Implementation of both the Understandings Reached at the 2009 Australia Group (AG) Plenary Meeting and a Decision Adopted under the AG Intersessional Silent Approval Procedures
03/23/2010	75 FR 13674	Wassenaar Arrangement 2008 Plenary Agreements Implementation: Categories 1, 2, 3, 4, 5 Parts I and II, 6, 7, 8 and 9 of the Commerce Control List, Definitions, Reports; Correction
2/22/2010	75 FR 7548	Amendments to the Select Agents Controls in Export Control Classification Number (ECCN) 1C360 on the Commerce Control List (CCL); Correction to ECCN 1E998
02/19/2010	75 FR 7358	Addition of Certain Persons to the Entity List: Addition of Persons Acting Contrary to the National Security or Foreign Policy Interests of the United States
02/09/2010	75 FR 6301	Revisions to License Exception GOV To Provide Authorization for Exports and Reexports of Commodities for Use on the International Space Station (ISS)
01/15/2010	75 FR 2435	Addition to the List of Validated End Users in the People's Republic of China (PRC)
01/13/2010	75 FR 1699	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 and Entry Modified for Clarification