



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

Annual Report to the Congress for Fiscal Year 2011

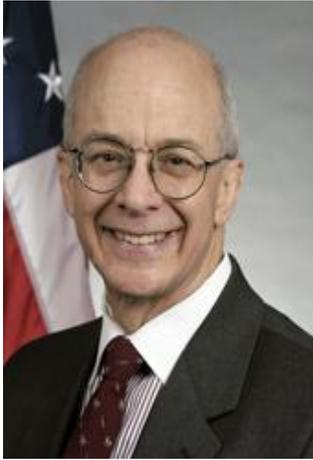
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## Bureau of Industry and Security Fiscal Year 2011 Annual Report

This report summarizes the activities of the Department of Commerce's Bureau of Industry and Security (BIS) during Fiscal Year 2011, from October 1, 2010, through September 30, 2011.

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*“The Bureau of Industry and Security, together with its counterparts at the Departments of State and Defense, is proceeding apace with the President’s ambitious Export Control Reform (ECR) initiative. I am pleased to report that at the same time, BIS continues to perform its many “day jobs” capably and efficiently. Like the ECR initiative, these tasks protect and enhance our national security. They include export licensing, regulation, outreach, and enforcement; work on domestic compliance with the Chemical Weapons Convention and the Biological Weapons Convention; participation in the Committee on Foreign Investment in the United States (CFIUS), which reviews foreign investments in our nation that may present national security concerns; policing compliance with the antiboycott laws; conducting studies relating to our country’s defense industrial base; and monitoring offsets in defense trade.”*

*Under Secretary Eric L. Hirschhorn*

Export control reform topped the BIS agenda in Fiscal Year 2011 (FY 2011). BIS played an integral role as part of the Administration’s task force charged by the President with implementing changes to the export control system needed to meet the national security challenges of the modern global marketplace.

President Obama announced a major step forward in the Administration’s export control reform effort on August 31, 2010, when he outlined the foundation of the proposed new system. His remarks to the 2010 BIS Annual Update Conference on Export Controls and Policy outlined fundamental changes in what items are controlled, how those items are controlled, how the controls will be enforced, and how the United States manages its exports. The new system is aimed at helping to strengthen U.S. national security by focusing efforts on controlling the most critical products and technologies and by enhancing the competitiveness of key U.S. manufacturing and technology sectors.

*(Please see Appendix H, page 66, for additional export control reform resources.)*

## Background on BIS

BIS advances U.S. national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system, and by promoting continued U.S. leadership in strategic technologies. BIS accomplishes its mission by maintaining and strengthening adaptable, efficient, and effective export control and treaty compliance systems.

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*“This is what export control reform is about: adapting and thriving in a world with new rules. It’s about partnering with allies and enlisting industry to ensure sophisticated technology can be traded amongst friends, but kept away from our enemies.”*

*Deputy Under Secretary Daniel O. Hill*

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Items subject to BIS’s regulatory jurisdiction have chiefly commercial uses, but can also be used in conventional arms or weapons of mass destruction, terrorist activities, or human rights abuses. These items are generally referred to as dual-use items. BIS has primary responsibility, in coordination with several other agencies, for implementing U.S. export control policy on dual-use commodities, software, and technology. To accomplish its objectives, BIS administers, and amends as necessary, the Export Administration Regulations (EAR). The EAR set forth license requirements and licensing policy for the exports of dual-use items.

The enforcement of the U.S. dual-use export control laws and regulations and the U.S. antiboycott regulations is a critical component of the BIS mission.

Enforcement efforts encourage compliance, prevent and deter violations, disrupt illicit activities, and bring violators to justice. BIS achieves these important objectives through a law enforcement program focused on parties engaged in the export of sensitive commodities, software, and technology to end uses, end users, and destinations of concern.

BIS plays a significant role in the four major multilateral export control regimes and three treaties which deal in different industry sectors: the Australia Group (chemical and biological nonproliferation), the Missile Technology Control Regime, the Nuclear Suppliers Group, the Wassenaar Arrangement (conventional arms and related dual-use goods, software, and technologies), the Chemical Weapons Convention

(chemical weapons nonproliferation), the Additional Protocol to the U.S.-International Atomic Energy Agency Safeguards Agreement (nuclear weapons nonproliferation), and the Biological Weapons Convention (biological weapons nonproliferation).

BIS consults closely with industry on the development of regulatory policy through its Technical Advisory Committees (TACs). The TACs provide valuable industry input on trends in technology and the practicality and likely impact of export controls. BIS also conducts numerous outreach events throughout the United States and overseas to educate and update the public on export controls and policy.

#### **Export Control Reform Initiative Update**

On November 9, 2010, the President signed Executive Order 13558, establishing an Export Enforcement Coordination Center (E2C2) among the Departments of Defense, Justice, Commerce, and Homeland Security, among others, as well as elements of the Intelligence Community. The E2C2 became operational in November 2011. The Department of Homeland Security administers the E2C2 and provides its Director. There are two Deputy Directors, one from the Department of Commerce and one from the Department of Justice. There is also a liaison with the Intelligence Community who is designated by the Director of National Intelligence.

On December 9, 2010, BIS published an Advanced Notice of Proposed Rulemaking seeking public comment on how to improve the description of items on the Commerce Control List (CCL) and foreign availability of items on the CCL.

On June 16, 2011, BIS published the final version of a rule implementing License Exception Strategic Trade Authorization

(STA). STA authorizes exports of most items on the CCL to low risk destinations without individual licenses once the foreign customer acknowledges the limits on reexport or transfer of the item.

On July 15, 2011, BIS published a proposed rule describing how items that no longer warrant control on the United States Munitions List will be controlled on the CCL. The proposed rule sets up a new control series in the CCL, the “600 series”, provides a definition of the term “specially designed”, and creates an Export Control Classification Number (ECCN) to control new items that otherwise are not on the CCL but may warrant control.

## Export Control Policy and Regulations

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*“Our goal is to find that sweet spot between facilitating trade to trusted end users and ensuring that sensitive items do not find their ways into the hands of entities and nation states that seek to undermine our national security. It takes a collection of activities from all interested stakeholders – exporters, export counselors, licensing officers, enforcement agents, and prosecutors – to make our system effective. But its underlying foundation must be strong. That’s what the President’s export control reform initiative aims to do.”*

*Assistant Secretary for Export Administration Kevin J. Wolf*

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## Foreign Policy-Based Controls

### Entity List-related Developments

In FY 2011, BIS implemented the decisions of the End User Review Committee (ERC), the interagency group that administers the Entity List, and published six Entity List-related rules. Through publication of these

rules, 29 persons were added to the Entity List. Additionally, eight persons were removed from the Entity List - one in response to an appeal, six as a result of the ERC’s annual review of the Entity List, and one in recognition of the bilateral partnership between the United States and Russia. Finally, 34 amendments were made to existing entries on the Entity List, 32 as a result of the annual review and two on an ad hoc basis.

## Regulation Developments

### Encryption

To protect and preserve national security and foreign policy interests, the United States maintains export controls on encryption items. Most encryption items are eligible for export and reexport to non-government end users under the terms and conditions of License Exception ENC after self-classification by the exporter or classification by BIS and the National Security Agency. Many items are also eligible for export and reexport to government end users under this License Exception.

On January 7, 2011, BIS published amendments to the encryption provision of the EAR that released from control publicly available mass market software after an encryption registration and self-classification. These amendments also released from control publicly available object code when the corresponding source code is publicly available under License Exception Technology and Software Unrestricted (TSU).

## **Export Licensing**

### **Export License Processing**

In FY 2011, BIS processed 25,093 export license applications valued at approximately \$89.6 billion. This marked an increase of more than fifteen percent from the 21,660 applications processed in FY 2010. BIS approved 21,605 license applications (86 percent), returned 3,357 applications without action (13 percent), and denied 131 applications (less than one percent). In FY 2011, BIS's average processing time to review a license application was 30 days.

The export of crude oil remained the category of license applications with the highest value, totaling \$65.0 billion. The greatest number of license application approvals under a single commodity classification was for chemical manufacturing facilities and equipment (ECCN 2B350), with 3,032 approved applications for exports and reexports worth \$343.1 million.

### **Exports under License**

BIS obtains data from the Bureau of the Census (Census) on exports subject to BIS licensing requirements to evaluate the economic impact that export controls are having on U.S. interests. For calendar year 2010 (the most recent data available to BIS for this report), U.S. companies exported \$3.7 billion of licensed items (of which 5.0 percent were exported under a special comprehensive license), and \$16.1 billion of items under a license exception, representing 0.3 percent and 1.3 percent, respectively, of overall U.S. trade. Between 2008 and 2010, companies exported approximately 49.9 percent of the commodities that they were authorized to export under BIS licenses.

BIS continues to work with Census and the Department of Homeland Security's U.S. Customs and Border Protection to improve the Automated Export System and to increase exporter compliance with the EAR.

### **License Applications Escalated for Interagency Resolution**

Under Executive Order 12981, BIS's Operating Committee (OC) – with membership including the Departments of Commerce, Defense, Energy, and State – is tasked with resolving license applications where there is disagreement among the relevant agencies as to the appropriate licensing action. In FY 2011, 242 cases were escalated to the OC for dispute resolution. Of those 242 cases, 26 were further escalated to the Assistant Secretary-level Advisory Committee on Export Policy for resolution.

### **Commodity Classifications**

To ascertain whether an export license is required from BIS, an exporter needs to classify the item to be exported by determining the ECCN and may request an official classification from BIS. In FY 2011, BIS processed 6,427 classification request applications, including encryption requests, in an average of 28.3 days.

### **Commodity Classification Determinations and Licensing of Encryption Items**

The FY 2010 removal of the commodity classification determination requirements for less sensitive encryption items resulted in a 33 percent decrease in the number of commodity classification determination

requests completed from 3,192 in FY 2010 to 2,128 in FY 2011. This change also enabled faster turnaround time for classification of encryption items with the average processing time dropping by 46 percent. The encryption registration process, which replaced encryption reviews for many items, continued at a steady pace of approximately 100 encryption registrations per month for a total of 1,149 encryption registrations for FY 2011.

BIS approved more than 1,800 licenses for encryption items in FY 2011. This was an increase of 12.5 percent over the number approved in FY 2010. The overall number of licenses increased even though the number of licenses for encryption technology dropped by one third. The June 25, 2010 rule (75 FR 36481) expanded License Exception ENC to allow the export of technology to more countries. The number of “encryption licensing arrangements” (ELAs) increased by more than 25 percent in FY 2011. These ELAs authorize unlimited exports and reexports of more sensitive encryption items that continue to require licenses for export to government end users in most countries.

### **Commodity Jurisdiction Determinations**

A commodity jurisdiction (CJ) request is used to determine whether an item or service is subject to the export licensing authority of the Department of Commerce or the Department of State, Directorate of Defense Trade Controls (DDTC). Exporters may request a CJ determination by submitting the request to DDTC, which has final jurisdiction determination authority. In FY 2011, BIS provided recommendations to the State Department on 1,359 CJ requests in an average of 36 days.

### **Special Comprehensive Licenses, Internal Control Program Reviews, and Export Compliance Programs**

In an effort to streamline licensing procedures while protecting U.S. national security, BIS administers special license and authorization programs.

In FY 2011, BIS conducted one on-site review, and one desk audit of holders of Special Comprehensive Licenses (SCL), which are issued to qualified exporters and consignees in place of individual export licenses. BIS also conducted 15 Export Management and Compliance Program (EMCP) reviews of corporate written compliance programs and conducted one two-day and three one-day seminars on how to develop an EMCP, in various U.S. cities.

On August 31, 2011, BIS published on its website a list of seven best practices aimed at reducing diversion, particularly through transshipment ports. Since the publication, BIS has begun to incorporate training on these best practices in its export outreach seminars.

### **License Determinations**

License Determinations (LDs) are used to support BIS enforcement actions connected with potential violations of the EAR. In FY 2011, BIS completed 350 enforcement LDs in an average of 47 days. In addition, BIS processes LDs for the Federal Bureau of Investigation and the Department of Homeland Security in support of criminal investigations of unlawful exports.

## Export Enforcement

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*“We in Export Enforcement are dedicated to our national security mission in this very challenging global environment. We want to make it crystal clear to bad actors, whether they contemplate diverting U.S. products, getting access to controlled U.S. technology, or circumventing U.S. embargoes, that we can and will catch up with them, and impose penalties to the fullest extent of the law. And, when a violation is a deliberate action of an individual, we are making an extra effort to determine whether it would be appropriate to seek penalties against the individual or against a supervisor who is complicit in deliberate violations by subordinates.”*

*Assistant Secretary for Export Enforcement  
David W. Mills*

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On July 1, 2010, the President signed the Comprehensive Iran Sanctions, Accountability, and Divestment Act, Pub. Law 111-195, 124 Stat. 1312, which under Section 305 provides, for the first time, permanent law enforcement authorities to Special Agents in BIS’s Office of Export Enforcement. These permanent authorities enhance the ability of our Special Agents to

investigate and prosecute violators of the EAR.

### Penalties

BIS investigations in FY 2011 resulted in the criminal conviction of 39 individuals and businesses for export violations, as compared to 31 convictions in FY 2010. The penalties for these convictions came to \$20,214,000 in criminal fines, more than \$2.1 million in forfeitures, and more than 572 months of imprisonment; compared to \$12,298,900 in criminal fines, more than \$2 million in forfeitures, and more than 522 months of imprisonment in FY 2010.

In FY 2011, BIS investigations resulted in the completion of 47 administrative cases against individuals and businesses and \$8,508,300 in administrative penalties, as compared to 53 cases and more than \$25.4 million in administrative penalties in FY 2010. The FY 2010 figure is higher as a result of a single case in FY 2010 with an administrative penalty of \$15 million. Of the 47 closed cases, eight involved antiboycott violations that resulted in total penalties of \$129,300.

### Antiboycott Activities

During FY 2011, eight companies agreed to pay civil penalties totaling \$129,300 to settle allegations that they violated the antiboycott provisions of the EAR, as compared to 14 antiboycott cases that involved \$380,975 in penalties in FY 2010. Additionally, BIS issued two antiboycott Warning Letters in FY 2011.

In FY 2011 BIS responded to 1,183 requests from companies for guidance on compliance with the antiboycott provisions of the EAR. BIS continued to reach out to exporters, manufacturers, freight forwarders, bankers,

and attorneys involved in international trade, and to provide extensive counseling to individual companies with specific boycott problems. The Office of Antiboycott Compliance (OAC) also conducted seven antiboycott compliance seminars for exporter groups and trade associations. OAC also provided export counseling to three U.S. firms seeking to remove boycott-related language from tenders originating in the UAE. OAC continued to work with the U.S. Embassy in Baghdad to assist U.S. firms seeking to register their trademarks in Iraq, and to remove boycott-related language from tenders.

Officials from OAC conducted an antiboycott compliance assessment trip to the United Arab Emirates in October 2010, where they briefed U.S. Embassy officials, including those from the U.S. and Foreign Commercial Service, on the EAR. OAC also participated in the State Department's regional Economic Officers Conference in Dubai. The conference brought together Economic Officers from more than 18 embassies, officials of the FCS, and a wide range of senior private sector and Administration officials to discuss regional economic issues. OAC led two training sessions on the requirements of the antiboycott provisions of the EAR.

### **Preventive Enforcement**

In FY 2011, BIS continued to emphasize its preventive and compliance enforcement activities. Export Enforcement officials participate in the export licensing process by making recommendations on license applications, detaining shipments that may have been undertaken in violation of the EAR, and in some significant cases seeking the issuance of Temporary Denial Orders to prevent imminent export violations.

End-use checks continue to play a valuable preventive enforcement role in confirming the bona fides of end users, ensuring that items will be or have been properly used as authorized and that license conditions are adhered to. BIS end-use checks also have uncovered improper or unauthorized reexports or diversions of items subject to BIS jurisdiction.

In FY 2011, BIS completed 891 end-use checks in more than 60 countries. Of these, 88 were Pre-License Checks (PLCs) and 803 were Post-Shipment Verifications (PSVs). To conduct these checks, BIS maintains Export Control Officers (ECOs) in U.S. embassies and consulates in Moscow, Beijing, Hong Kong, New Delhi, Abu Dhabi, and Singapore. Following the establishment of the Singapore office in December 2010, BIS further expanded the ECO program with the assignment of an additional ECO to the Beijing office in late 2011. Approximately 52 percent of the checks were conducted by BIS ECOs. The remaining checks were conducted by Office of Export Enforcement Special Agents deployed from the United States to conduct end-use checks in certain countries and by Foreign Commercial Service Officers and support personnel stationed at various U.S. embassies. BIS used the results of the negative checks to prevent future exports to unsuitable end users and to take enforcement action where appropriate.

In situations where BIS cannot make a recommendation on an end-use check because the U.S. Government was unable to conduct the check or was otherwise unable to verify the existence or authenticity of the end user, the end user may be considered for inclusion on the Entity List or the Unverified List. The presence of an end user on the Entity List provides notice to the public that certain exports, reexports, and

transfers (in-country) to the identified parties are subject to licensing requirements and policies supplemental to those found elsewhere in the EAR and that availability of license exceptions in such transactions is limited. Any transaction in which an end user listed on the Unverified List is a party will be deemed by BIS to raise a red flag with respect to such a transaction within the meaning of the guidance set forth in Supplement No. 3 to 15 C.F.R. Part 732.

BIS completed a significant number of additional preventive enforcement actions in FY 2011, including the issuance of 227 warning letters; 139 detentions; 69 seizures; one Temporary Denial Order against one company and one individual, and one order adding one company as an additional respondent to an existing Temporary Denial Order; renewals of four Temporary Denial Orders previously issued against a total of nine companies and two individuals; six orders adding a total of nine related persons to denial orders or Temporary Denial Orders; two denial orders under Section 11(h) of the EAA (which authorizes denial of export privileges of parties convicted under certain Federal statutes); one order revoking a penalty suspension (and thereby activating the penalty); and 1,053 outreach contacts with industry.

For additional information related to significant BIS enforcement activities, see Appendices C and D.

## **Industry Outreach Activities**

### **Seminars and Conferences**

BIS export outreach and education constitute the first line in the Bureau's contact with U.S. exporters and provide guidance and transparency to new and

experienced exporters regarding the Export Administration Regulations (EAR). BIS counseling operations have been instrumental in assisting the exporting community to understand and comply with critical national security and foreign policy-based regulations. Each year, counselors in the BIS Office of Exporter Services (OExS)'s Outreach and Educational Services Division and Western Regional Office provide regulatory, policy and process guidance to tens of thousands of exporters, forwarders, universities and other individuals, enabling them to meet their obligations under the EAR.

In FY 2011, BIS expanded the scope of its outreach and education in furtherance of the Export Control Reform Initiative and related regulatory developments. The regulated community was asked to comment on proposed regulations relating to Export Control Reform. BIS initiated a series of outreach activities designed to educate industry on these proposed regulations. BIS's activities included webinars, teleconferences, and on location panel sessions at various conferences. For example, Assistant Secretary Wolf spoke weekly via teleconference with industry representatives on the proposed license exception Strategic Trade Authorization and the July 15 rule proposing how items previously on the U.S. Munitions List would be controlled on the Commerce Control List. These weekly teleconferences allowed BIS to address specific questions from the business community. These activities educated the regulated community on the proposed rules, thereby helping it to focus its attention on key issues when submitting formal comments to BIS.

One-on-one counseling assistance is provided on both coasts, for extended periods of operation each day. In addition,

counselors conduct dozens of highly regarded and cost-effective seminars throughout the United States in the high technology communities most affected by these regulations. Over the past few years, BIS has developed additional capabilities to offer training online and via interactive webinars. These services have been particularly useful for small and medium-sized businesses that operate with more limited compliance resources.

In FY 2011, BIS reached more than 2,500 people through 24 domestic export control seminars conducted in 17 states. These seminars provided guidance to new and experienced exporters regarding the EAR, changes in export policy, licensing procedures as well as encryption and technical data issues. More than 94 percent of attendees rated the seminars either “good” or “excellent” in FY 2011. BIS also participated as a speaker or organized information booths at several dozen additional events hosted by other organizations.

BIS held its 24th annual Update Conference on Export Controls and Policy between July 19, 2011 and July 21, 2011 in Washington, DC. The conference attracted close to 1,050 participants. Under Secretary of Commerce for Industry and Security Eric L. Hirschhorn and Assistant Secretary of Commerce for Export Administration Kevin J. Wolf provided updates on the progress of the Export Control Reform Initiative. One of the highlights of the conference was an address on July 19 by White House Chief of Staff William M. Daley on the importance of Export Control Reform. A key feature of Update 2011, the roundtable one-on-one discussions between conference participants and BIS staff on export control issues, was a great success again this year. Slide presentations from the Update 2011

Conference are available online to the public.

BIS also holds an annual Export Control Forum in California. This past year it was held on February 28, 2011 and March 1, 2011 and attracted 200 representatives of technology firms.

BIS also provides an introductory series of easy-to-use training modules. Six of those modules mirror content provided in the Essentials of Export Controls seminar that BIS currently offers around the United States. This service offers exporters and reexporters - particularly small and medium-sized enterprises—a cost-saving mechanism to learn about U.S. dual-use export controls. The training modules were viewed over 55,000 times and the accompanying transcripts were viewed more than 20,000 times in FY 2011.

In addition to BIS seminars, annual conferences and online training, BIS works with a number of public and private-sector organizations to introduce audiences in specific business and technology sectors to BIS’s mission and services. These partnerships also provide additional insight into technology and market developments in key sectors of the economy. BIS began a series of outreach activities with the Office of the Ombudsman, U.S. Department of Homeland Security, to educate those in the immigration field on the new export control provisions of the I-129 form, Petition for a Nonimmigrant Worker. One teleconference reached more than 350 persons, the largest such event sponsored by the Office of the Ombudsman. This activity has led to numerous outreach programs to universities and associations involved in immigration issues.

In response to requests by those in the fields of technology and university research, BIS began a series of outreach events on deemed exports and technology data exports. BIS has been working with a number of non-profit associations involved in university research programs to explain deemed export license requirements to their members. In FY 2011, BIS conducted 24 deemed export outreach and education events.

BIS supports the interagency Trade Promotion Coordinating Committee (TPCC) as part of the TPCC's U.S. Export Pavilion and Trade Officer Training Conference. In FY 2011, BIS participated in 14 trade shows. BIS also supports the TPCC's weeklong Trade Officer's Training Conferences, held three times a year in Rosslyn, Virginia.

The expansion of outreach activities went beyond Export Control Reform and had the effect of educating parties who are new to export controls. This includes small and medium sized companies, freight forwarders, immigration attorneys, human relations managers, and government personnel from the Department of Homeland Security.

In addition, BIS continued to focus on the enforcement aspects of expanded outreach and deemed export compliance involving individuals and companies that had not previously submitted applications for actual or deemed export licenses. In FY 2011, BIS's Office of Export Enforcement conducted more than 546 enforcement outreach visits to such individuals and companies. BIS also initiated 34 leads and cases involving allegations of deemed export licensing violations.

## **Project Guardian**

BIS maintains a constructive and cooperative relationship with the business community through outreach programs sponsored by BIS's Export Enforcement arm. BIS's Project Guardian focuses on specific goods and technologies that illicit proliferation networks actively seek to acquire. BIS contacts U.S. manufacturers and exporters of these goods and technologies to apprise them of the acquisition threat and to solicit cooperation in identifying and responding to suspicious purchase requests. In FY 2011, BIS conducted 58 Project Guardian outreach contacts.

## **Counseling**

BIS received more than 50,000 phone and email inquiries through its counseling programs at BIS's Outreach and Educational Services Division in Washington, DC, and at the Western Regional Office in California. Through these programs, BIS provides guidance on regulations, policies, and practices and helps to increase compliance with U.S. export control regulations.

## **International Cooperation**

BIS staff participated in bilateral discussions with the Republic of Korea and Hong Kong, participated in the U.S.'s annual Counterproliferation Task Force Meeting with the UAE in Dubai, and hosted management and procurement officials from the United Nations Development Program for a briefing on U.S. export control requirements for sanctioned and embargoed countries.

## **International Regimes and Treaty Compliance**

BIS plays an important role in the U.S. Government's efforts to develop and refine the control lists and operational guidelines for the four major multilateral export control regimes: the Australia Group (chemical and biological weapons), the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement (conventional arms and related dual-use items).

### **Australia Group**

The Australia Group (AG), a multilateral export control regime, was formed in 1985 to help stem the proliferation of chemical and biological weapons through harmonized export controls. The AG now includes 40 countries and the European Union.

On April 20, 2011 the Department of Commerce published a final rule amending the Export Administration Regulations (EAR) in the *Federal Register* (76 FR 22017) to implement the understandings reached at the June 2010 plenary meeting of the Australia Group (AG). This final rule amended certain ECCN's to clarify controls of materials from which certain chemical manufacturing equipment is made, and to update the names of certain bacteria.

On September 12, 2011, the Department of Commerce published a final rule amending the EAR to implement a proposal adopted under the AG intersessional decision procedures in the *Federal Register* (76 FR 56099). Specifically, this rule amended ECCN 1C351 to remove and replace certain viruses and to conform the format with the AG List of Biological Agents. This rule also amended Section 740.20(b)(2)(vi), which describes certain limitations on the

use of License Exception Strategic Trade Authorization (STA), to add several toxins that were inadvertently omitted by the License Exception STA rule that BIS published on June 16, 2011 (76 FR 35276).

### **Missile Technology Control Regime**

The United States is a member of the Missile Technology Control Regime (MTCR), a multilateral export control regime established in 1987. The MTCR currently includes 34 member countries that have agreed to coordinate their national export controls to prevent missile proliferation.

The MTCR held a Technical Experts meeting in conjunction with the Plenary meeting to discuss changes to the MTCR control list, including adding controls for the production facilities specially designed for rocket systems and unmanned aerial vehicle systems capable of a range equal to or greater than 300 km; and clarifying the coverage of control in the General Technology Note. No changes in the EAR resulted from this update to the MTCR Annex that was accepted by MTCR member countries at the April 2011 Plenary in Buenos Aires.

### **Nuclear Suppliers Group (NSG)**

The NSG is a multilateral export control regime that was formally established in 1992 and now includes 46 members. The regime seeks to impede the proliferation of nuclear weapons through the implementation of guidelines for the control of nuclear and nuclear-related exports. Members pursue the aims of the NSG through voluntary adherence to the NSG Guidelines, which are adopted either by consensus or through exchanges of information on developments of nuclear proliferation concern.

The 2011 Nuclear Suppliers Group (NSG) Plenary, Consultative Group (CG), Information Exchange (IEM), and Licensing and Enforcement Experts (LEEM) meetings were held in Noordwijk, Netherlands, during the week of June 20-24, 2011. The United States confirmed that it would host the next Plenary in 2012 in Seattle, Washington.

The CG reached consensus, confirmed by the Plenary, on approval of the compromise enrichment and reprocessing (ENR) proposal circulated by outgoing NSG Chair Ambassador Jennifer Macmillan. There was a robust discussion of the U.S. “Food for Thought” paper on NSG Membership for India with speeches from 21 delegations. In the CG, the United States introduced its paper on safeguards issues associated with a State’s withdrawal from the Non-Proliferation Treaty (NPT). The CG took note of the substantial progress made by the Dedicated Meeting of Technical Experts (DMTE) in review of possible revisions to the Part 1 and Part 2 control lists. The Plenary took note of and endorsed the outgoing NSG Chair’s report and recommendations in support of a continued active outreach program with non-member states, including non-NPT States India, Israel, and Pakistan.

### **Wassenaar Arrangement**

The Wassenaar Arrangement (Wassenaar) is a multilateral arrangement addressing export controls on conventional arms and sensitive dual-use goods and technologies. Wassenaar was founded in 1996 to replace the East-West technology control program under the Coordinating Committee (COCOM) regime that ended in 1994. There are currently 40 countries participating in Wassenaar.

Members are required to report approvals, transfers, and denials of certain controlled dual-use goods and technologies. Reporting denials helps to bring to the attention of member countries’ attempts to obtain strategic items that may undermine the objectives of Wassenaar.

Wassenaar members, at the December 2010 Plenary, agreed to a substantial number of amendments to the control lists, including many in technically complex and challenging areas such as electronics, information security (encryption) and acoustic seabed survey equipment. Particular attention was also given to terrorism-related items, such as improvised explosive devices electronic countermeasures. Members also actively worked to make the existing control text more easily understood and “user-friendly” for exporters and licensing officials.

The Wassenaar Plenary agreed that 2011 would be an assessment year—a wide ranging exercise undertaken by Wassenaar members every four years to review and evaluate its overall functioning. Members established a framework for this exercise to guide Wassenaar in weighing its response to existing and emerging challenges to the export control regime. The Wassenaar Plenary also established several task forces, one of which will be chaired by the United States, to assist in the review process. The Wassenaar Plenary reiterated that Wassenaar membership is open to all states who comply with the agreed membership criteria.

## **Treaty Compliance**

BIS also administers the industry compliance program for the Chemical Weapons Convention (CWC), is a lead agency for implementation of the Additional Protocol (AP), and participates in activities on the Biological Weapons Convention (BWC) issues.

### **Chemical Weapons Convention**

The United States ratified the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and their Destruction (the Chemical Weapons Convention, or CWC) on April 25, 1997. There are 188 States Parties to the CWC. The CWC bans the development, production, stockpiling, and use of chemical weapons and provides for an extensive verification regime to ensure adherence to its terms. BIS works actively with other CWC States Parties and the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons to ensure that all 188 States Parties to the CWC are implementing the CWC's provisions in a rigorous, analytically sound, and equitable manner.

The CWC requires certain commercial chemical facilities to submit data declarations that include information on chemical production, processing, consumption, and import/export activities. In the United States, BIS collects this information, compiles it, and forwards it to the Department of State for transmittal to the Organization for the Prohibition of Chemical Weapons (OPCW) Technical Secretariat (TS), which is charged with carrying out verification functions under the CWC.

During FY 2011, BIS collected declarations and reports from 569 facilities and trading companies in the United States and submitted them to the OPCW in accordance with the CWC. BIS also provided advice and support to 23 chemical plant sites in the United States that were selected for inspection by the OPCW, hosted the inspections, and protected the sites' confidential business information while demonstrating their compliance with the CWC. Most of these companies had never been inspected before and benefited from BIS's efforts to guide them through the process. BIS also responded to three requests from industry by providing site assistance visits to companies with plant sites subject to inspection.

In 2011, BIS gathered the necessary data and prepared the congressionally-mandated reports regarding the implementation of the CWC. These reports include: (1) an annual report on the cost of inspections to both industry and the government; and (2) an annual statement regarding the impact of the treaty on availability of Schedule 1 chemicals and toxins to industry, with a particular focus on intermediate use of Schedule 1 chemicals in the production of some other chemical.

BIS provided support for meetings of the Executive Council and the Conference of States Parties, as well as other meetings of the policy-making organs of the OPCW, and provided an Alternate Permanent Representative on the U.S. Delegation to the OPCW.

## **U.S. Additional Protocol to the U.S.-International Atomic Energy Agency (IAEA) Safeguards Agreement**

The Additional Protocol is a bilateral treaty that supplements and amends verification arrangements under the existing “Agreement Between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States” of November 18, 1977. The Additional Protocol augments the U.S.-IAEA Safeguards Agreement by requiring the United States to provide the IAEA with information on certain civil nuclear and nuclear-related items, materials, and activities not currently covered by the Safeguards Agreement.

The Additional Protocol entered into force in the United States on January 6, 2009. Under Executive Order 13458, BIS is the lead agency for all subject commercial activities and locations not licensed by the Nuclear Regulatory Commission (NRC) or an NRC Agreement State, and not located on certain other government locations. BIS published its final Additional Protocol Regulation (APR) on October 31, 2008.

BIS administers the compliance program involving private sector nuclear fuel cycle activities that are not subject to the jurisdiction of the Nuclear Regulatory Commission. BIS receives declarations from industry, the Nuclear Regulatory Commission and the Department of Energy, and assembles the U.S. national declaration and other reports to the International Atomic Energy Agency.

BIS compiled the Additional Protocol declaration on behalf of all U.S. Government agencies and prepared the annual declaration to the IAEA, which was submitted on May 15, 2011. This

declaration contains 372 changes and/or new activities. During FY 2011, BIS also submitted four quarterly reports for the export of nuclear equipment. There were 58 exports in the first quarter, 41 exports in the second quarter, 40 exports in the third quarter, and 41 exports in the fourth quarter.

During FY 2011, BIS participated in two Complementary Access Visits under the Additional Protocol.

## **Biological Weapons Convention**

The Biological Weapons Convention (BWC) prohibits developing, producing, stockpiling, or otherwise acquiring or retaining biological agents or toxins for non-peaceful purposes. The BWC entered into force in 1975. In FY 2011, BIS supported U.S. Government efforts, in accordance with the *National Strategy for Countering Biological Threats*, to prepare for the 7<sup>th</sup> BWC Review Conference of States Parties to the BWC, which occurs every five years to consider measures to more effectively implement the treaty. BIS led the effort to bring U.S. industry’s perspective into discussions on the full range of issues pertinent to the BWC through consultations with its Materials Technical Advisory Committee and various trade and professional associations.

## **Short Supply Controls**

BIS implements short supply controls on western red cedar, as required by section 7(i) of the EAA. Section 3(2)(c) of the EAA also authorizes the President to prohibit or curtail the export of goods “where necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of foreign demand.” BIS does not currently maintain any export controls or monitor

items under sections 7(a) or (b), which authorize the imposition of controls and monitoring, respectively, on any commodities in short supply. BIS administers export controls under the Energy Policy and Conservation Act, the Mineral Leasing Act, the Naval Petroleum Reserves Production Act, the Outer Continental Shelf Lands Act, and the Forest Resources Conservation and Shortage Relief Act, as amended.

### **U.S. Defense Industrial and Technological Base Programs and Advocacy Activities**

BIS's mission includes supporting continued U.S. technology leadership in industries that are essential to U.S. national security. Activities in this regard include:

#### **Administering the Defense Priorities and Allocations System**

BIS's administration of the Defense Priorities and Allocations System (DPAS) continues to play an important role in supporting the deployment of U.S. and allied forces abroad, meeting critical national defense and homeland security requirements, and facilitating recovery from natural disasters.

The Defense Production Act (DPA), the statutory authority for the DPAS, was reauthorized on September 30, 2009 for five years. The 2009 legislation required that all delegate agencies develop rules for the use of their priorities and allocations authority. The 2009 legislation also established an interagency committee to advise the President on the effective use of DPA authority. In FY 2011, BIS worked with the relevant agencies to take steps to implement these requirements.

In FY 2011, in cooperation with the Department of Defense, BIS expedited the delivery of items critical to military operations in Afghanistan. In cooperation with the Department of Homeland Security, BIS authorized the U.S. Army Corps of Engineers to expedite the delivery of equipment to support response and recovery related requirements following the Midwest floods. BIS also provided DPAS guidance in support of interagency emergency preparedness activities.

#### **Committee on Foreign Investment in the United States**

BIS participates in the Committee on Foreign Investment in the United States (CFIUS) by evaluating foreign investments in U.S. industries for export control equities. In FY 2011, BIS worked closely with the Department of Commerce's International Trade Administration (ITA) and interagency CFIUS partners to review 121 CFIUS filings to determine the effects of those transactions on the national security of the United States. The filings are reviewed pursuant to the Foreign Investment and National Security Act of 2007, and the CFIUS implementing regulations published by the Department of the Treasury on November 21, 2008.

#### **Monitoring the Strength of the U.S. Defense Industrial and Technological Base**

In FY 2011, BIS completed one assessment that was initiated in FY 2009:

- **Healthcare and Public Health Sector:** This assessment was designed to provide data on the scope and pervasiveness of foreign sourcing and reliance within the U.S. healthcare and public health supply chain, in order to identify critical

dependencies that could have a negative impact on the delivery of effective medical services. The information will allow government and industry to monitor trends and take action to mitigate potential problems caused by this dependency. The assessment focused on pharmaceuticals, medical devices, and surgical equipment marketed, manufactured, and/or sold in the United States.

Out of many possible healthcare related products, BIS identified 418 commodities that were deemed critical to healthcare emergencies in the United States. If their availability were limited or denied, it could present risks for the delivery of needed services by U.S. healthcare providers. These commodities were selected based on previous shortages/supply disruptions, interagency input, the World Health Organization's (WHO) *List of Essential Medicines*, and other sources. 161 companies participated in the survey. Each participating company produced at least one of the 418 commodities identified in the survey for sale in the United States.

BIS data revealed a very high degree of foreign sourcing and dependency for critical components, materials, and finished products required for U.S.-based manufacturing operations. In many cases, there is no U.S.-based alternate source available for the components, materials, and products supplied from companies based outside the United States.

BIS also continued work on three assessments established in FY 2009 and 2010:

- NASA Industrial Base: which assess the health and competitiveness of NASA suppliers for Human Space Flight Missions, and the impact of the Space Shuttle and Constellation Programs' terminations.
- Telecommunications Sector: which looks at current and future projected use of foreign information and communication technology in this critical domestic sector.
- Cartridge and Propellant Actuated Device Industry: which assesses the current and long-term health and economic competitiveness of the industry and develops recommendations for the Navy to ensure the continued ability of industry to support defense missions and programs.

BIS initiated the following two assessments in FY 2010:

- U.S. Space Industrial Supply Chain: which will examine the health of supply chains in the space industry – including satellites, ground systems, and launch, with particular emphasis on government program participation and suppliers from lower tiers.
- Department of Defense Sector-by-Sector Tier-by-Tier Assessment (S2T2): which will produce a sector-by-sector, tier-by-tier evaluation of the defense industrial base to provide a comprehensive assessment of the defense supply chain in order to plan for future challenges affecting U.S. military capabilities and readiness.

BIS also completed its fifteenth congressionally mandated report on the impact of offsets in defense trade. On

December 23, 2009, BIS published a final rule to update its offset reporting requirement regulation in order to enhance the assessment of the economic effects of offsets. These changes were reflected in the fifteenth report to Congress.

In FY 2011, BIS reviewed 76 proposed transfers of excess defense equipment to foreign governments through the Department of Defense's Excess Defense Articles program and provided the Department of Defense with determinations whether these transfers would interfere with the ongoing sales or marketing activities of U.S. industry. BIS also reviewed 99 proposed international armament cooperative agreements and provided the Department of Defense with comments on these agreements' commercial implications and potential effects on the international competitive position of the U.S. defense industrial and technological base.

During FY 2011, BIS continued to co-chair the interagency National Defense Stockpile Market Impact Committee (MIC) with the Department of State's Bureau of Energy Resources. The MIC advises the Defense National Stockpile Center whether proposed plans to sell portions of the remaining material held in the stockpile, no longer needed to support national defense purposes, would cause an undue disruption in the usual markets of producers, processors, and consumers of such materials.

### **Supporting the U.S. Defense Industry's International Competitiveness**

As part of BIS's ongoing efforts to monitor policies of foreign partners affecting the U.S. defense industrial base, BIS sent a delegation to Brussels in February 2011 that met with European Union and European Defense Agency (EDA) officials to discuss the European Union's defense procurement directive and the EDA's "Code of Conduct" on offsets. These discussions helped to increase understanding of the directive and the Code, assess their impact on the U.S. defense industrial base, and continue a dialogue with European Union and EDA officials critical to the implementation of the directive and the Code. BIS also hosted meetings with EDA officials in Washington, DC in July and September 2011 to continue the dialogue on defense trade and offset-related issues.

In FY 2011, BIS continued to administer the Department of Commerce's North Atlantic Treaty Organization (NATO) Security Investment Program (NSIP), a certification requirement for U.S. companies interested in competing to supply goods and services in NSIP-funded procurements.

During FY 2011, BIS vetted and approved 210 U.S. firms that were interested in participating in NATO procurement competitions.

## **Appendix A: Regulatory Changes in Fiscal Year 2011**

BIS published 34 notices, rules or other items in the *Federal Register* during FY 2011, including the following:

### **Export Control Reform**

On December 9, 2010, BIS published a rule proposing implementation of License Exception Strategic Trade Authorization (STA) to facilitate transactions with low-risk destinations while guarding against subsequent diversion. Also on December 9, BIS published an Advanced Notice of Proposed Rulemaking on clarification and streamlining of the Commerce Control List. License Exception STA was published in final form on June 16, 2011.

On July 15, 2011, BIS published a rule proposing a new regulatory construct to control items that the President determines no longer warrant control on the United States Munitions List on the Commerce Control List once congressional notification requirements have been met. That rule also proposed the creation of new ECCNs for the regulation of ground vehicles and related items that the President determines no longer warrant control on the United States Munitions List.

### **Entity List**

In FY 2011, BIS implemented the decisions of the End-User Review Committee (the interagency group that administers the Entity List) and published six Entity List-related rules. Within the six rules, 31 persons were added to the Entity List, all on the basis that they were engaging in activities contrary to U.S. national security

or foreign policy interests. Additionally, twelve persons were removed from the Entity List. Finally, numerous amendments were made in order to clarify existing entries on the List.

### **Encryption**

On January 7, 2011, BIS published a rule revising provisions regarding publicly available mass market encryption software.

### **Country Policy**

On January 25, 2011, BIS published a rule implementing several components of the bilateral understanding between the United States and India that was reached in November 2010.

On July 13, 2011, BIS published a rule adding the new state of the Republic of South Sudan to the Export Administration Regulations.

On September 6, 2011, BIS clarified the status of the former Netherlands Antilles.

### **Wassenaar Arrangement**

On May 20, 2011, BIS published a rule amending the Commerce Control List to implement the agreement reached at the December 2010 plenary meeting of the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies. This rule revised control list entries in most categories.

On June 24, 2011, BIS published Wassenaar Arrangement revisions to computer controls.

## **Chemical and Biological Weapons**

On April 20, 2011, BIS implemented changes to the Commerce Control List resulting from the 2010 Australia Group plenary meeting and on September 12, 2011, implemented an inter-sessional decision.

## **Validated End-Users**

In FY 2011, BIS published five rules modifying the list of Validated End-Users in the People's Republic of China and India.

## **License Processing**

On November 23, 2010, BIS proposed implementation of an on-line registration process for obtaining an account to submit license applications and similar documents electronically. This rule was published in final form on February 7, 2011.

## **Appendix B: Bureau of Industry and Security Organizational Structure and Administrative Information**

### **Performance Based Programs**

For budget and performance integration, BIS has continued to develop performance-based budgets based on OMB guidance. BIS budget submissions continue to be directly tied to the Bureau's performance goals and measures, and BIS will continue to develop performance-based budgets that display the cost of achieving its performance goals. Budget requests are integrated with performance goals and describe the anticipated effects of resource requirements on performance.

In the area of Strategic Management the Bureau incorporated a balanced score card approach to management. This approach focuses on themes that reflect the priorities of the Department and BIS. BIS contributes to the Department's programmatic theme of Economic Growth and the three management themes of Customer Service, Organizational Excellence, and Workforce Excellence.

The major E-Gov initiative accomplishment for BIS in 2011 was continued success in its program to replace the legacy export license processing system, while simultaneously meeting new information technology (IT) security challenges, including particularly stringent requirements for export control data.

The Export Control Reform initiative combined the efforts of the Export Control Automated Support System Redesign (ECASS-R) program and a collaborative effort with the Department of Defense to incorporate their USXPorts system for dual use licensing process. This effort has initiated multiple projects to support the building and expansion of the BIS mission critical technology platform and orderly retirement of the ECASS mainframe. As part of this effort, several subprojects are under way:

1. Simplified Network Application Process Redesign (SNAP-R) enhancements to support submission of Special Comphersensive Licenses (SCL),
2. Migration of entity coding in the Investigative Management System Redesign (IMS-R) application,
3. Establishment of a technology platform to support various self-managed business applications such as CFIUS, OffSet, DAPAS, and Consolidated List.
4. Implementation of SIPRNet for the headquarters office and the BIS field offices

The fully deployed collaborative system will provide BIS business users with a

modernized export licensing system while protecting mission critical export control system applications and data from foreign intrusions. The project is on schedule to replace the Legacy ECASS system by the end of fiscal year 2012.

Highlights of Performance based accomplishments in FY 2011 include:

1. The deployment of the End- Use Check (EUC) as improvements to IMS-R in the second quarter of FY 2011,
2. The deployment of online registration for exporters in the second quarter of FY 2011.
3. The deployment of the Antiboycott Compliance case management into production in the second quarter of FY 2011,
4. The deployment of the compartmentalized application infrastructure moderate network in production in second quarter of FY 2011.
5. The deployment of the BISAES pilot system in third quarter of FY 2011.

In addition, BIS supported the President's Open Government Initiative by submitting two high value datasets for publication through Data.gov, which is one of the Administration's flagship initiatives designed to increase public access to high value, machine readable datasets generated by the Executive Branch of the Federal Government. BIS also continued to meet its enterprise architecture, IT security, and Web public data dissemination requirements.

## **Cooperation with Auditing Agencies and Responses to Requests from the Public and the Courts**

BIS program controls are sound and recommendations resulting from the Government Accountability Office (GAO) and the Department of Commerce's Office of Inspector General (OIG) are being addressed. BIS continues to work with GAO and OIG on their studies of BIS programs and control systems, as well as to address audit findings and recommendations. During FY 2011, we submitted periodic reports to the Office of the CFO and Assistant Secretary for Administration on the status of BIS corrective actions of all open GAO and OIG recommendations. BIS management also monitored the progress of corrective actions on the basis of these reports.

Five GAO studies addressing BIS programs and activities were completed in FY 2011. These studies were:

- 1) Export Control Reform (job code 120922),
- 2) National Security Collaboration (job code 450768),
- 3) Nuclear Cooperation Agreements with Foreign Countries (job code 361111),
- 4) Current Deemed Export Rule (job code 320704), and
- 5) Strategic Alignment of Agencies with International Responsibilities (job code 351595).

At the end of the fiscal year, four GAO studies addressing BIS programs and activities are pending final report:

- 1) IT Supply Chain Management (job code 311064),
- 2) Proliferation of Unmanned Aerial Vehicles (job code 320817),
- 3) Transforming Export Controls (job code 320806), and
- 4) Export Control Enforcement (job code 120966).

One open OIG review will carry over from FY 2011 into FY 2012: the Vulnerability of Web-Based Applications - SNAP-R (project number 011200000117).

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



**Appendix C: Summaries and Tables of Closed Export Enforcement Cases  
and Criminal Cases**

*Table 1  
Criminal Case Convictions During Fiscal Year 2011*

<i>Sentencing Date</i>	<i>Defendant</i>	<i>Criminal Charges</i>	<i>Criminal Sanctions</i>	<i>Case Details</i>
10/6/10	Arkradani Viranuvatti	One count of conspiracy to traffic in stolen government property in violation of 18 USC 641 and 371	Seven days in prison, 36 months of supervised release, 50 hours of community service, and \$30,000 in restitution	Export of commodities to Taiwan
10/7/10	Wilfred Bouton	One count of conspiracy to traffic in stolen government property in violation of 18 USC 641 and 371	24 months in prison, 36 months of probation, and \$32,311 in restitution	Export of commodities to Taiwan
10/25/10	Charles Yu Hsu Lee	One count of misprision of a felony in violation of 18 USC 4	Six days in prison, one year of supervised release, a \$3,000 criminal fine, and 100 hours of community service	Export of digital video cameras to China
10/28/10	Thomas Loretz	Four counts of making a material false statement in violation of 18 USC 1001	Eight months of home confinement, 24 months of probation, and a \$20,000 criminal fine	Export of micro channel plates to Singapore
11/8/10	Manual Bautista	One count of conspiracy in violation of 18 USC 371; and two counts of false statements to a licensed federal firearms dealer in violation of 18 USC 924	Three years of probation	Export of shotguns and rifles to Mexico
12/9/10	Richard Duhaney	One count of smuggling goods from the U.S. in violation of 18 USC 554; and one count of conspiracy to make false statements during the purchase of a firearm in violation of 18 USC 371 and 924	Ten months in prison and two years of probation	Export of shotguns to various locations

12/21/10	PPG Paints Trading (Shanghai) Co. Ltd.	Three counts of causing an unlawful export in violation of 50 USC 1705 and 18 USC 2; and one count of conspiracy in violation of 18 USC 371	\$2,000,000 criminal fine and forfeit \$32,319	Export of a high performance paint system to a listed entity in Pakistan
1/3/11	Emenike Charles Nwankwoala	One count of exportation of controlled goods without a license in violation of 50 USC 1705; one count of exportation of arms without a license in violation of 22 USC 2778; and one count of willful delivery of a firearm to a common carrier without written notice in violation of 18 USC 922	37 months in prison and two years of supervised release	Export of firearms to Nigeria
1/4/11	Emilio Gonzalez Niera	One count of conspiracy in violation of 18 USC 371	One year of probation	Export of electronics to a Specially Designated National in Paraguay using false export documents
1/4/11	Jumbo Cargo, Inc.	One count of conspiracy in violation of 18 USC 371	One year of probation and forfeit \$20,000	Export of electronics to a Specially Designated National in Paraguay using false export documents
1/5/11	Master Cutlery, Inc.	One count each of importation and conspiring to export prohibited items in violation of 15 USC 1242 and 50 USC 1705	24 months of probation and a \$400,000 criminal fine	Export of handcuffs to the United Kingdom
1/19/11	Chitron (PRC) Electronics Co. Ltd.	Contempt order	\$1,925,000 criminal fine	Export of electronics equipment to China via Hong Kong
1/21/11	Transamerica Express of Miami	One count of conspiracy in violation of 18 USC 371	Three years of probation and forfeit \$100,000	Export of electronics to a Specially Designated National in Paraguay using false export documents
1/21/11	Cedar Distributors	One count of conspiracy in violation of 18 USC 371	Three years of probation	Export of electronics to a Specially Designated National in Paraguay using false export documents
1/21/11	Khaled Safadi	One count of conspiracy in violation of 18 USC 371	Six months in prison and one year of probation	Export of electronics to a Specially Designated National in Paraguay using false export documents
1/21/11	Ulyses Talavera	One count of conspiracy in violation of 18 USC 371	One year of probation	Export of electronics to a Specially Designated National in Paraguay using false export documents

1/26/11	Zhen Zhou	12 counts of unlawful export of Commerce controlled goods in violation of 50 USC 1705; two counts of conspiracy in violation of 18 USC 371; two counts of unlawful exports of defense articles in violation of 22 USC 2778; and one count of scheming to falsify, conceal and cover up material facts and aiding and abetting in violation of 18 USC 1001 and 2	97 months in prison, 24 months of probation, a \$15,000 criminal fine, forfeit \$65,881.71 (jointly with co-defendants)	Export of electronics equipment to China via Hong Kong
1/28/11	Chitron Electronics, Inc.	One count of conspiracy in violation of 18 USC 371; 20 counts of unlawful export of Commerce controlled goods in violation of 50 USC 1705; and three counts of unlawful export of defense articles in violation of 22 USC 2778	\$15,500,000 criminal fine and forfeit \$65,881.71 (jointly with co-defendants)	Export of electronics equipment to China via Hong Kong
1/28/11	Yufeng Wei	Two counts of conspiracy in violation of 18 USC 371; seven counts of unlawful export of Commerce controlled goods in violation of 50 USC 1705; two counts of unlawful export of defense articles in violation of 22 USC 2778; one count of scheming to falsify, conceal and cover up material facts, and aiding and abetting in violation of 18 USC 1001 and 2; and use of fraudulently obtained permanent resident card in violation 18 USC 1546	36 months in prison and forfeit \$65,881 (jointly with co-defendants)	Export of aircraft parts to Iran via Singapore and Malaysia
1/31/11	Ching Sheng Lee	One count of conspiracy to export national security controlled items without a license in violation of 18 USC 371	12 months and one day in prison, three years of probation, a \$10,000 criminal fine, and 100 hours of community service	Export of digital video cameras to China
3/7/11	Amirhossein Sairafi	One count of conspiracy in violation of 18 USC 371; one count of violating the International Emergency Economic Powers Act and aiding and abetting and causing an act to be done in violation of 50 USC 1705 and 18 USC 2; and one count of money laundering in violation of 18 USC 1956	41 months in prison and three years of supervised release	Export of vacuum pumps and parts to Iran via the United Arab Emirates

5/9/11	GWC Valves	One count of conspiracy in violation of 18 USC 371	Five years of probation, a \$300,000 criminal fine, and forfeit \$410,833.82	Export of items to Iran via the United Arab Emirates
5/9/11	David Meador	One count of conspiracy in violation of 18 USC 371	13 months in prison, three years of supervised release, a \$10,000 criminal fine, and 500 hours of community service	Export of items to Iran via the United Arab Emirates
5/16/11	Mohammed El-Gamal, a/k/a Moe Zayed Elgameil	One count of making a material false statement in violation of 18 USC 1001	Two years of probation, a \$5,000 criminal fine, and 100 hours of community service	Export of electronics to Libya
5/20/11	Sadek Mohamad Koumaiha	Two counts of conspiracy in violation of 18 USC 371; two counts of false statements to a government official and aiding and abetting in violation of 18 USC 1001 and 2	42 months in prison, three years of supervised release, and forfeit \$1,406,955.30	Export of stolen goods to Lebanon
6/3/11	Mohammad Vaghari	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 18 USC 371; two counts of violating the International Emergency Economic Powers Act and aiding and abetting in violation of 50 USC 1705 and 18 USC 2; and one count of naturalization fraud in violation of 18 USC 1435	33 months in prison and three years of supervised release	Export of computers and other items to Iran via the United Arab Emirates
6/22/11	Hamid Seifi	One count of conspiracy in violation of 18 USC 371; and one count of violation of the International Emergency Economic Powers Act in violation of 50 USC 1705	56 months in prison, three years of supervised release, a \$12,500 criminal fine, and forfeit \$153,940	Export of aircraft parts to Iran via the United Arab Emirates and France
6/22/11	Galaxy Aviation Services	One count of conspiracy in violation of 18 USC 371	\$400 special assessment	Export of aircraft parts to Iran via the United Arab Emirates and France

7/6/11	Jirair Avanesian	Once count of conspiracy in violation of 18 USC 371; one count of aiding and abetting and causing an act to be done in violation of 50 USC 1705 and 18 USC 2; and conspiracy to launder money in violation of 18 USC 1956	18 months in prison, two years of supervised release, and a \$10,000 criminal fine	Export of vacuum pumps and parts to Iran via the United Arab Emirates
7/12/11	Boniface Ibe	One count of exportation of controlled goods in violation of 50 USC 1705; one count of exportation of arms without a license in violation of 22 USC 2778; and one count of willful delivery of a firearm to a common carrier without written notice in violation of 18 USC 922	Five months in prison and three years of supervised release	Export of shotguns to Nigeria
7/21/11	Sergey Korznikov	One count of conspiracy to smuggle goods from the U.S. in violation of 18 USC 371; one count of violating the International Emergency Economic Powers Act and causing an act to be done in violation of 50 USC 1701-1706 and 18 USC 2; and one count of money laundering in violation of 18 USC 1956	Six months in prison and two years of supervised release	Export of riflescopes to Russia
7/21/11	Orville Lee Parker	Four counts of interstate transportation of stolen goods in violation of 18 USC 2314; and one count of failure to file export information in violation of 13 USC 305	Nine months of home confinement, four years of probation, three months of work release, and \$86,450 in restitution	Export of thermal imaging cameras to Germany
8/1/11	Andrew O'Donnell	One count of conspiracy in violation of 18 USC 371; two counts of exporting prohibited munitions in violation of 22 USC 2778; and one count of possession of an unregistered prohibited firearm in violation of 26 USC 5841	37 months in prison, three years of supervised release, a \$2,500 criminal fine, and 80 hours of community service	Export of controlled items to Hong Kong
8/12/11	Davoud Baniameri	One count of conspiracy to export goods and technology to Iran in violation of 50 USC 1705; and one count of attempting to export defense materials on the U.S. Munitions List without a license in violation of 22 USC 2778	51 months in prison and three years of supervised release	Export of radio communication devices to Iran via the United Arab Emirates

8/19/11	Russell Marshall	One count of making false statements in violation of 18 USC 1001	180 days of home detention, three years of probation, and 150 hours of community service	Undervaluing of unlicensed exports of aircraft parts to Singapore
8/19/11	Universal Industries Ltd.	One count of attempted unlicensed export of U.S. military aircraft parts designated as defense articles of the U.S. Munitions List in violation of 22 USC 2778	One year of probation and a \$1,000 criminal fine	Undervaluing of unlicensed exports of aircraft parts to Singapore
9/2/11	Eduardo Acosta	One count of conspiracy in violation of 18 USC 371; one count of attempting to smuggle goods from the U.S. in violation of 18 USC 554 and 2; and one count of possession of a firearm in violation of 18 USC 922	12 months and one day in prison and three years of probation	Export of shotguns and rifles to Mexico
9/14/11	Mir Ghaemi	One count of criminal copyright infringement in violation of 17 USC 506 and 18 USC 2319	Six months of supervised release and \$680.90 in restitution	Export of computers and other items to Iran via the United Arab Emirates
9/26/11	Chan Hok Shek	One count of conspiracy in violation of 18 USC 371; one count of attempted smuggling of goods from the U.S. in violation of 18 USC 554 and 2; and one count of attempted unlawful export of defense articles in violation of 22 USC 2778	42 months in prison and three years of supervised release	Export of controlled items to Iran via Malaysia

*Table 2*  
*Department of Commerce Export Enforcement Cases During Fiscal Year 2011*

<i>Order Date</i>	<i>Respondent</i>	<i>Charges</i>	<i>Sections Violated [number of charges]</i>	<i>Result</i>
10/6/10	Parto Abgardan Cooling Tower Co.	Related Person under Section 766.23 of the EAR to Aqua-Loop Cooling Towers Co. A denial order issued against Aqua-Loop after the filing of a charging letter for conspiring to export filament winding machines and hog hair filter media to Iran, via the U.A.E., without the required license, and for causing, aiding or abetting the unlicensed export of hog hair filter media, to Iran, via the U.A.E., with knowledge that violations of the EAR would occur.		Added as a Related Person to the March 25, 2010 denial order against Aqua-Loop Cooling Towers, Co.
10/7/10	Alphatronx, Inc.	Related Person under Section 766.23 of the EAR to Joseph Piquet. Piquet was convicted of violating Section 1705(a) of IEEPA and Section 38 of the Arms Export Control Act for criminal conspiracy to purchase high-tech military and dual-use electronic components from a domestic corporation and to then export the items to Hong Kong and the People's Republic of China without first obtaining the required export licenses.	Section 1705(a) of IEEPA and Section 38 of the Arms Export Control Act	Added as a Related Person to the May 28, 2010 denial order against Joseph Piquet, pursuant to Section 766.25(h) of the EAR (see also Section 11(h) of the EAA).
10/22/10	Orion Air, S.L. and Syrian Pearl Airlines	Temporary Denial Order issued based on showing of imminent violation in matter involving the reexport and attempted reexport to Syria of BAE 146-300 aircraft containing U.S.-origin engines and other U.S.-origin parts, without the U.S. Government authorization required by General Order No. 2.		Temporary Denial Order denying export privileges renewed for 180 days.

11/15/10	Anvik Technologies Sdn. Bhd., a/k/a Anvik Technologies and Babak Jafarpour, a/k/a Bob Jefferson	Temporary Denial Order issued based on showing of imminent violation in matter involving the use of “virtual offices” in Hong Kong, Malaysia, and the U.S. to export microwave mixers, bias tees, GPS timing boards, digital phase shifters and a millidioptrimeter to Iran without the required U.S. Government authorization.		Temporary Denial Order denying export privileges issued for 180 days.
12/21/10	PPG Industries, Inc.	Exported and attempted to export high performance epoxy paint and epoxy paint thinner (certified as meeting “Level 1” nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Islamabad, Pakistan, and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required licenses.	764.2(a) [2] 764.2(c) [1]	Settlement Agreement – civil penalty of \$750,000; complete two external export compliance audits.
12/21/10	PPG Paints Trading (Shanghai) Co., Ltd.	Conspired to export high performance epoxy paint and epoxy paint thinner (certified as meeting “Level 1” nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Islamabad, Pakistan, and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required license and with knowledge that violations would occur.	764.2(d) [1] 764.2(e) [3]	Settlement Agreement – civil penalty of \$1,000,000; complete two external export compliance audits.

12/21/10	Yuri I. Montgomery	Acting contrary to the terms of a Denial Order and acting with knowledge that violations would occur.	764.2(k) [7] 764.2(e) [6]	Final Decision and Order approving settlement agreement (after filing of charging letter) and affirming the ALJ's Recommended Decision and Order, except as modified as to sanctions to conform to the settlement agreement. Civil penalty of \$340,000, of which \$322,500 is suspended for 10 years; export privileges denied for 30 years. As part of the settlement agreement, Montgomery admitted liability and consented to the Under Secretary affirming the RDO (with the modified penalty provisions).
02/07/11	Ali Amirnazmi	Underlying criminal conviction for multiple violation of the International Economic Emergency Powers Act for, inter alia, engaging in transactions for the sale and supply of goods, technology, and services to the National Petrochemical Company of Iran and other Iranian entities, without obtaining the required licenses from the U.S. Department of the Treasury's Office of Foreign Assets Control.	Section 1705(c) of IEEPA	Export privileges denied until January 11, 2020, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
02/07/11	William Chi-Wai Tsu and related person Cheerway Corporation	Underlying criminal conviction for knowingly and willfully exporting and causing to be exported Triquint Semiconductor integrated circuits from the United States to the People's Republic of China without first obtaining the required licenses.	Sections 1705(a) and (c) of IEEPA	Export privileges of William Chi-Wai Tsu denied until August 9, 2019, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA); combined with the naming and addition of Cheerway Corporation as a Related Person.

02/25/11	Mahan Airways; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard, and Mahmoud Amini	Temporary Denial Order originally issued based on showing of imminent violations in matter involving the reexport of three U.S.-origin aircraft to Iran and the intended reexport of three additional U.S. origin-aircraft, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S.		Temporary Denial Order denying export privileges renewed for 180 days; combined with the naming and addition of Pejman Mahmood Kosarayanifard, a/k/a Kosarian Fard, and Mahmoud Amini as Related Persons.
02/28/11	Amy Farrow	Exported stun guns controlled on crime control grounds to various destinations without the required licenses.	764.2(a) [116]	Settlement Agreement – denial of export privileges for two years, with the second year of the two-year denial period suspended.
02/28/11	Sandra Stevens	Attempted to export stun guns controlled on crime control grounds to Thailand without the required license.	764.2(c) [1]	Settlement Agreement – civil penalty of \$20,000, all of which is suspended due to inability to pay; denial of export privileges for one year, all of which is suspended; and complete an export compliance training program within six months.
03/11/11	TW Metals, Inc.	Exported titanium alloy and aluminum bar controlled on nuclear non-proliferation grounds to the People’s Republic of China (48 violations) and Israel (1 violation) without the required licenses.	764.2(a) [49]	Settlement Agreement – civil penalty of \$575,000.
03/22/11	ArvinMeritor, Inc.	Exported and caused, aided or abetted the export of national-security controlled axles, seal assemblies and related technology to various countries, including China, without the required licenses, and made a deemed export of national-security controlled technology to a national of India without the required license.	764.2(a) [13] 764.2(b) [1]	Settlement Agreement – civil penalty of \$100,000.

03/24/11	GEOMET Technologies, L.L.C.	Under the Chemical Weapons Convention Regulations (CWCR): Willfully failed to declare the storage of a Schedule 1.A chemical; willfully failed to declare the production and the consumption of a Schedule 1.B chemical; willfully failed to declare the consumption of a Schedule 2.B.11 chemical; willfully failed to establish and maintain records related to the storage of a Schedule 1.A chemical; willfully failed to establish and maintain records related to the declared consumption and subsequent storage of a Schedule 1.B chemical.	719.2(a)(2)(i) [3] 719.2(a)(2)(ii) [5] of the CWCR	Settlement Agreement (joint BIS/State Dept. agreement with the respondent) – civil penalty of \$35,000.
03/28/11	Manoj Bhayana	Made false statements to BIS Special Agents during an investigation.	764.2(g) [1]	Final Order issued by the Under Secretary – export privileges denied for two years.
03/30/11	Polar Star International Co. Ltd.	Reexported electronic components controlled on anti-terrorism grounds to Al-Faris, an entity located in the United Arab Emirates and designated under General Order No. 3.	764.2(a) [1]	Settlement Agreement – civil penalty of \$50,000; and complete and submit results of an external audit by September 30, 2012.
03/30/11	Aviation Trading & Leasing, Inc.	Exported a mode select panel aircraft component controlled on anti-terrorism grounds to Syria without the license required pursuant to General Order No. 2.	764.2(a) [1]	Settlement Agreement – civil penalty of \$20,000.
03/30/11	Credit International Trading Co. Ltd.	Related Person under Section 766.23 of the EAR to Ruo Ling Wang. Wang was convicted in 2005 of violating Section 1705(b) of IEEPA for knowingly and willfully making a false statement and concealing a material fact from the Bureau of Industry and Security and the former U.S. Customs Service.	Section 1705(b) of IEEPA	Added as a Related Person to the April 18, 2006 denial order against Ruo Ling Wang, pursuant to Sections 766.23 and 766.25 of the EAR (see also Section 11(h) of the EAA).

04/18/11	Orion Air, S.L. and Syrian Pearl Airlines	Temporary Denial Order issued based on showing of imminent violation in matter involving the reexport and attempted reexport to Syria of BAE 146-300 aircraft containing U.S.-origin engines and other U.S.-origin parts, without the U.S. Government authorization required by General Order No. 2.		Temporary Denial Order denying export privileges renewed for 180 days.
05/19/11	Balli Group PLC and Balli Aviation	Conspired with an Iranian airline and others, known and unknown, to export or reexport, or attempt to export or reexport, certain U.S.-origin aircraft to Iran for the use of the Iranian airline; acted contrary to the terms of a Temporary Denial Order.	764.2(d) [1] 764.2(k) [1]	Issued Order revoking suspension of the \$2 million suspended portion of the \$15 million civil penalty set forth in the February 5, 2010 Final Order, and also confirming the application of the settlement agreement's acceleration clause regarding the two remaining installment payments.
06/09/11	Analytical Technology, Inc.	Exported wire gas transmitters to the United Arab Emirates without the required licenses.	764.2(a) [2]	Settlement Agreement – civil penalty of \$45,000.
06/20/11	Curtis L. Hickcox	Conspired and caused, aided and abetted the export of high performance epoxy paint and epoxy paint thinner (certified as meeting "Level 1" nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Islamabad, Pakistan, and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required licenses.	764.2(d) [1] 764.2(b) [1]	Settlement Agreement – civil penalty of \$500,000, of which \$485,000 is suspended; denial of export privileges for 15 years, with the denial suspended during a 15-year probationary period; and complete an export compliance training program within six months.

06/30/11	Mohammed El-Gamal a/k/a Moe El-Gamal	Exported electronic and computer equipment to Libya with knowledge that violations would occur; made false or misleading statements to BIS special agents in the course of an investigation.	764.2(e) [3] 764.2(g) [1]	Settlement Agreement – civil penalty of \$340,000; perform an audit of the export controls compliance program of his company, Applied Technology, Inc., for the 12-month period following the date of the Order, with the audit report to be submitted within 14 months of the date of the Order; and denial of export privileges for five years, with the denial suspended during a five-year probationary period.
06/30/11	SZY Holding LLC a/k/a Ever Dixie USA EMS Supply Company a/k/a Ever Dixie EMS a/k/a Everready First Aid & Medical Supplies a/k/a Everready First Aid & Medical Supply Corp.	Took actions with the intent to evade the Regulations; exported thermal imaging camera to South Korea without the required license; failed to file Shipper’s Export Declaration or Automated Export Systems Record.	764.2(h) [1] 764.2(a) [2]	Settlement agreement (after filing of charging letter) – civil penalty of \$75,000; complete and submit results of an external audit by September 30, 2012; and denial of export privileges for five years, with the denial suspended during a five-year probationary period.
06/30/11	Eric Cohen	Took actions with the intent to evade the Regulations and aided and abetted the unlicensed export of thermal imaging cameras to South Korea.	764.2(h) [1] 764.2(b) [1]	Settlement agreement (after filing of charging letter) – civil penalty of \$15,000; denial of export privileges for five years for items listed on Commerce Control List.
07/01/11	Conax AS	Reexported computer servers and software from Norway to Sudan, via the United Arab Emirates, without the required license.	764.2(a) [1]	Settlement Agreement – civil penalty of \$50,000.

07/01/11	Mahan Airways, Zarand Aviation, a/k/a GIE Zarand Aviation and Gatewick LLC	Temporary Denial Order originally issued based on showing of imminent violations in matter involving the reexport of three U.S.-origin aircraft to Iran and the intended reexport of three additional U.S. origin-aircraft, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S.		Temporary Denial Order denying export privileges modified by naming and adding Zarand Aviation, a/k/a GIE Zarand Aviation, as a respondent and denied person.
07/27/11	Jianwei Ding	Conspired to export carbon fiber to China without the required license.	764.2(d) [1]	Settlement Agreement – civil penalty of \$100,000; export privileges denied for 25 years.
07/28/11	Toll Global Forwarding (USA) Inc.	Caused, aided and abetted the export of platinum electronic components and platinum pellets to entities in India listed on BIS's Entity List without the required licenses.	764.2(b) [9]	Settlement Agreement - civil penalty of \$200,000; complete and submit results of an external audit of export controls compliance program within 14 months.
08/16/11	Serfilco, Ltd.	Exported industrial pumps and pump components on four occasions to Russia, India and Israel without the required licenses; failed on four occasions to file Shipper's Export Declarations or Automated Export Systems Records.	764.2(a) [8]	Settlement Agreement – civil penalty of \$44,000.
08/16/11	Ram International Inc.	Aided and abetted the export of salvage scrap electrolytic tin plate steel to Allied Trading Company of Karachi, Pakistan, an entity listed on BIS's Entity List.	764.2(b) [2]	Settlement Agreement – civil penalty of \$40,000.

08/24/11	Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; and Ali Eslamian	Temporary Denial Order originally issued based on showing of imminent violations in matter involving the reexport of three U.S.-origin aircraft to Iran and the intended reexport of three additional U.S. origin-aircraft, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S.		Temporary Denial Order denying export privileges renewed for 180 days; combined with the naming and addition of Kerman Aviation, a/k/a GIE Kerman Aviation, Sirjanco Trading LLC, and Ali Eslamian as Related Persons.
08/26/11	Howard L. Combs	Conspired to export high performance epoxy paint and epoxy paint thinner (certified as meeting “Level 1” nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Islamabad, Pakistan, and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required license.	764.2(d) [1]	Settlement Agreement – civil penalty of \$250,000, of which \$200,000 is suspended; required to complete export compliance training on the Regulations every twelve months for the next five years; and subject to a five-year suspended denial of export privileges.
09/01/11	Vytran LLC	Exported a large-diameter precision cleaver and accessories to the Chinese Academy of Engineering Physics in China, an entity on the BIS Entity List without the required license.	764.2(a) [1]	Settlement Agreement – civil penalty of \$28,000; required to complete export compliance training on the Regulations within six months.
09/08/11	A.M. Castle & Co.	Exported aluminum alloy to the People’s Republic of China, Singapore, Malaysia and Mexico without the required licenses.	764.2(a) [65]	Settlement Agreement – civil penalty of \$775,000; complete and submit results an audit of its export control compliance program within 14 months.
09/22/11	Bahram Maghazehe	Took actions with the intent to evade the Regulations when attempting to export used medical equipment to Iran.	764.2(h) [1]	Settlement Agreement – export privileges denied for six years.

09/23/11	Toll Global Forwarding (USA) Inc.	Caused, aided and abetted the export of electronic components to Solid State Physics Lab, an entity in India that is listed on BIS's Entity List.	764.2(b) [1]	Settlement Agreement – civil penalty of \$27,000.
09/23/11	Essex Group, Inc.	Exported aromatic polyamide-imide solution to the People's Republic of China without the required licenses.	764.2(a) [14]	Settlement Agreement – civil penalty of \$200,000.
09/27/11	Texas Armoring Corporation	Exported armored vehicles to Saudi Arabia, Indonesia, Nigeria and Mexico without the required licenses and with knowledge that violations would occur.	764.2 (a) [2] 764.2(e) [3]	Settlement Agreement – civil penalty of \$300,000, of which \$100,000 is suspended; complete and submit results of an external audit of its export compliance program within 15 months; and complete an export control compliance training program within six months.
09/28/11	Flowserve Corporation (United States)	Exported pumps, valves and pump and valve component parts to Aruba, Brazil, Chile, the Netherlands Antilles, Hong Kong, Israel, Mexico, the People's Republic of China, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand, Trinidad and Tobago, and Venezuela, without the required licenses; failed to comply with reporting requirements relating to "installed base" items exported to Libya.	764.2(a) [55] 764.2(i) [5]	Settlement Agreement – civil penalty of \$725,000; complete and submit result of an external audit of its export compliance program within 15 months.
09/28/11	Flowserve Australia Pty. Ltd. (Australia)	Reexported valves and valve components from Australia to Indonesia without the required licenses.	764.2(a) [1]	Settlement Agreement – civil penalty of \$5,000.
09/28/11	Flowserve Canada Corp. (Canada)	Reexported pumps and pump components from Canada to Singapore and Taiwan without the required licenses.	764.2(a) [2]	Settlement Agreement – civil penalty of \$25,000.

09/28/11	FlowsERVE Pompes SAS (Arnage, France)	Reexported pumps and pump components from France to Syria without the required licenses; and caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through France to Iran without the required licenses.	764.2(a) [2] 764.2(b) [18]	Settlement Agreement – civil penalty of \$135,000; complete and submit results of an external audit of its export compliance program within 19 months.
09/28/11	FlowsERVE S.A.S. France (Thiers, France)	Caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through France to Iran without the required licenses.	764.2(b) [27]	Settlement Agreement – civil penalty of \$210,000; complete and submit result of an external audit of its export compliance program within 19 months.
09/28/11	FlowsERVE Hamburg GmbH (Germany)	Reexported pumps and pump components from Germany to Syria without the required licenses; and caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through Germany to Iran without the required licenses.	764.2(a) [9] 764.2(b) [7]	Settlement Agreement – civil penalty of \$125,000; complete and submit result of an external audit of its export compliance program within 19 months.
09/28/11	Worthington S.r.l. (Italy)	Reexported pumps and pump components from Italy to Saudi Arabia and Venezuela without the required licenses.	764.2(a) [3]	Settlement Agreement – civil penalty of \$30,000.
09/28/11	FlowsERVE B.V. (Netherlands)	Caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through the Netherlands to Iran without the required licenses; reexported pumps and pump components from the Netherlands to Syria, Kazakhstan, Kenya, Kuwait and Qatar without the required licenses.	764.2(a) [33]	Settlement Agreement – civil penalty of \$310,000; complete and submit results of an external audit of its export compliance program within 15 months.
09/28/11	FlowsERVE PTE Ltd. (Singapore)	Reexported pumps and pump components from Singapore to the People’s Republic of China, India, Malaysia, the Philippines, Taiwan and Thailand without the required licenses.	764.2(a) [96]	Settlement Agreement – civil penalty of \$510,000; complete and submit results of an external audit of its export compliance program within 19 months.

09/28/11	Flowsolve Spain S.A. (Spain)	Caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through Spain to Iran without the required licenses.	764.2(b) [4]	Settlement Agreement – civil penalty of \$20,000.
09/28/11	Flowsolve GB Ltd. (United Kingdom)	Reexported pumps and pump components from the United Kingdom to Egypt, Morocco, Pakistan, Russia, Saudi Arabia, South Africa and Taiwan without the required licenses; caused, aided and abetted the exports of pumps and pump components from the United States for transshipment through United Kingdom to Iran and Syria without the required licenses.	764.2(a) [23] 764.2(b) [3]	Settlement Agreement – civil penalty of \$405,000; complete and submit results of an external audit of its export compliance program within 19 months.

**Table 3**  
**Summary of Antiboycott Cases Closed in Fiscal Year 2010**

<b><i>Company Name &amp; Location</i></b>	<b><i>Date Order Signed</i></b>	<b><i>Alleged Violations</i></b>	<b><i>Settlement Amount</i></b>
Tollgrade Communications Inc. (voluntary disclosure)	09/29/11	3 X 760.2(d) Furnishing information about business relationships with or in a boycotted country 1 X 760.5 Failure to report receipt of a boycott request in a in a timely manner	\$10,000
World Kitchen, L.L.C.	09/23/11	5 X 760.5 Failure to report receipt of a boycott request in a in a timely manner	\$10,000
Bank of New York Mellon (Shanghai Branch) (voluntary disclosure)	08/19/11	15 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$30,000
Chemguard, Inc.	08/18/11	2 X 760.2(d) Furnishing information about business relationships with or in a boycotted country 5 X 760.5 Failure to report receipt of a boycott request in a in a timely manner	\$22,000

<b><i>Company Name &amp; Location</i></b>	<b><i>Date Order Signed</i></b>	<b><i>Alleged Violations</i></b>	<b><i>Settlement Amount</i></b>
Smith International Inc.	06/29/11	1 X 760.2(a) Refusing to do business with a boycotted country or resident of a boycotted country 1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country 9 X 760.5 Failure to report receipt of a boycott request in a in a timely manner	\$20,500
Lynden Air Freight (Lynden International)	06/28/11	3 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$20,400
Applied Technology Inc.	06/28/11	1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country 1 X 760.5 Failure to report receipt of a boycott request in a in a timely manner	\$10,000
UPS Supply Chain Solutions (Houston)	01/25/11	1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$6,400

**Appendix D:  
Boycott Requests reported to the  
Office of Antiboycott Compliance, U.S. Department of Commerce**

Country	Prohibited Boycott Requests	Permissible Boycott-Related Requests	Amended Boycott Requests	Boycott Exceptions	Totals
Algeria	0	0	0	1	1
Bahrain	13	7	7	7	34
Iraq	66	2	2	0	70
Jordan	1	0	0	0	1
Kuwait	8	6	1	11	26
Lebanon	4	31	4	0	39
Libya	55	10	1	13	79
Oman	17	11	7	1	36
Qatar	10	42	5	39	96
Saudi Arabia	30	22	2	8	62
Syria	42	1	0	0	43
United Arab Emirates	123	102	21	107	353
Yemen	0	1	1	0	2
<b>Total (Arab League members)</b>	<b>369</b>	<b>235</b>	<b>51</b>	<b>187</b>	<b>842</b>
Bangladesh	0	4	2	47	53
Iran	0	0	0	0	0
Malaysia	1	0	0	56	57
Nigeria	1	0	0	4	5
Pakistan	0	3	1	15	19
All other Countries	5	30	2	20	57
<b>Total (All countries &amp; Arab League members)</b>	<b>376</b>	<b>272</b>	<b>56</b>	<b>329</b>	<b>1033</b>

**Prohibited requests** describe those requests to take an action that would be prohibited under section 760.2 of the EAR, mainly actions to enforce the secondary and tertiary aspects of the boycott.

**Permissible boycott-related requests** are for actions that fall outside the prohibitions of the EAR but nonetheless still require compliance with some level of the boycott.

**Amended requests** were ones that were prohibited as an initial matter but were subsequently adjusted and reclassified as permissible requests or as exceptions under the EAR.

**Exceptions** are requests to take actions that would be prohibited, but for a specific provision in the EAR that allows the actions.

## Appendix E: Approved Applications for Country Group D:1 and Cuba

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
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ALBANIA			
0A985	DISCHARGE TYPE ARMS	1	\$25,000
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$2,386,554
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	7	\$11,484,836
5D002	SOFTWARE FOR INFORMATION SECURITY	4	\$21,116
	TOTAL APPLICATIONS: 10		
	TOTAL CCL'S: 4		
	TOTAL DOLLAR VALUE: \$13,917,506		
ARMENIA			
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$519
1A004	PROTECTIVE AND DETECTION EQUIPMENT	2	\$44,850
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	1	\$766,415
2D983	EQUIPMENT CONTROLLED BY 2A983	1	\$20,000
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	2	\$2
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	3	\$66,683
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	1	\$3
6E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/	1	\$1
6E201	TECHNOLOGY FOR EQUIPMENT CONTROLLED BY 6A003,6A005	1	\$1
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$178,200
	TOTAL APPLICATIONS: 11		
	TOTAL CCL'S: 10		
	TOTAL DOLLAR VALUE: \$1,076,674		
AZERBAIJAN			
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$7,470
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$899
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	2	\$70,020
1A984	CHEMICAL AGENTS, INCLUDING TEAR GAS	1	\$498
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$250,000
1C002	METAL ALLOYS, POWDER OR ALLOYED MATERIALS	1	\$320
1C010	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC	1	\$1,336
1C011	METALS AND COMPOUNDS	1	\$0
1C116	MARAGING STEELS NOT CONTROLLED BY 1C216	1	\$0
1C210	FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C	1	\$352
1C229	HIGH PURITY BISMUTH WITH LOW SILVER CONTENT	1	\$0
1C230	BERYLLIUM	1	\$2,352
1C231	HAFNIUM	1	\$5,860
1C234	ZIRCONIUM, WITH A HAFNIUM CONTENT	1	\$2,020
1C240	NICKEL POWDER OR POROUS NICKEL METAL	1	\$0
2A225	CRUCIBLES MADE OF MATERIALS RESISTANT TO LIQUID AC	1	\$0
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	5	\$64,304
3A201	ELECTRONIC COMPONENTS NOT CONTROLLED BY 3A001	1	\$320

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	2	\$1,726,000
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$23,400
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	1	\$1
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	1	\$1
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	10	\$2,219,936
5D002	SOFTWARE FOR INFORMATION SECURITY	4	\$32,010
7A001	ACCELEROMETERS FOR USE IN NAVIGATION OR GUIDANCE S	1	\$9,630
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$98,291
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$2,205,000

TOTAL APPLICATIONS: 28  
TOTAL CCL'S: 28  
TOTAL DOLLAR VALUE: \$6,720,020

BELARUS

0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	8	\$32,474
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$1,158
3A001	ELECTRONIC DEVICES/COMPONENTS	2	\$42,800
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	3	\$3
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	3	\$3
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	3	\$3
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	3	\$3
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	3	\$3
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	1	\$20,358
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	3	\$3
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	4	\$6
6A003	CAMERAS	4	\$77,632

TOTAL APPLICATIONS: 20  
TOTAL CCL'S: 12  
TOTAL DOLLAR VALUE: \$174,446

BURMA

TOTAL APPLICATIONS: 0  
TOTAL CCL'S: 0  
TOTAL DOLLAR VALUE: \$0

CAMBODIA

1A005	BODY ARMOR	2	\$10,269
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$240,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	3	\$50
5D002	SOFTWARE FOR INFORMATION SECURITY	2	\$11
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	2	\$1,055,000

TOTAL APPLICATIONS: 8  
TOTAL CCL'S: 5  
TOTAL DOLLAR VALUE: \$1,305,330

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
CHINA			
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	17	\$818,478
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	32	\$44,270,266
0E018	TECHNICAL DATA FOR USE OF ITEMS CONTROLLED BY 0A01	1	\$10,000
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	19	\$729,979
1A003	MANUFACTURES OF NON-FLUORINATED POLYMERIC SUBSTANC	1	\$190
1A004	PROTECTIVE AND DETECTION EQUIPMENT	120	\$20,451,292
1A005	BODY ARMOR	1	\$30
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	2	\$94,800
1A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S	1	\$750
1B001	EQUIPMENT FOR PRODUCTION OF FIBERS, PREFORMS OR CO	4	\$16,137,492
1B117	PRODUCTION EQUIPMENT FOR TESTING OF PROPELLANTS	2	\$1,209,930
1B118	CONTINUOUS MIXERS	1	\$2,000
1B119	FLUID ENERGY MILLS	13	\$1,294,461
1C006	FLUIDS AND LUBRICATING MATERIALS	1	\$0
1C007	CERAMIC BASE AND PRECURSOR MATERIALS	1	\$3,025
1C008	NON-FLUORINATED POLYMERIC SUBSTANCES	93	\$347,348,708
1C010	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC	20	\$13,319,603
1C107	GRAPHITE AND CERAMIC MATERIALS	3	\$26,148,620
1C111	PROPELLANTS AND CONSTITUENT CHEMICALS	2	\$162,593
1C202	ALUMINUM AND TITANIUM ALLOYS IN THE FORM OF TUBES/	37	\$12,430,058
1C210	FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C	12	\$32,397,666
1C225	BORON AND BORON COMPOUNDS/MIXTURES AND LOADED MATE	1	\$9,300
1C227	CALCIUM CONTAINING BORON AND OTHER IMPURITIES	2	\$300
1C228	MAGNESIUM CONTAINING IMPURITIES OTHER THAN CALCIUM	1	\$330
1C229	HIGH PURITY BISMUTH WITH LOW SILVER CONTENT	1	\$110
1C230	BERYLLIUM	3	\$9,153
1C231	HAFNIUM	25	\$4,404,951
1C233	LITHIUM	4	\$23,451
1C234	ZIRCONIUM, WITH A HAFNIUM CONTENT	13	\$3,485,869
1C238	CHLORINE TRIFLUORIDE	1	\$141,010
1C240	NICKEL POWDER OR POROUS NICKEL METAL	2	\$69
1C350	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS	26	\$72,805,981
1C351	HUMAN PATHOGENS, ZOONOSES, AND TOXINS	80	\$36,495
1C352	ANIMAL PATHOGENS	5	\$85,000
1C981	CRUDE PETROLEUM/TAR SANDS/CRUDE SHALE	1	\$5,000,000,000
1D001	SOFTWARE UTILIZED FOR DEVELOPMENT/USE OF EQUIPMENT	1	\$50,000
1D003	SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004	5	\$96,028
1D101	SOFTWARE USED FOR ITEMS CONTROLLED BY 1A/1B/1C MIS	1	\$10,000
1E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00	16	\$20,006,212
1E201	TECHNOLOGY FOR USE OF 1A002,1A202,1A225 TO 1B225	2	\$200
1E350	TECHNOLOGY FOR USE OF 1C350 CHEMICALS	5	\$4
1E351	TECHNOLOGY FOR USE OF MICROBIOLOGICAL MATERIALS	2	\$2
2A226	VALVES NOT CONTROLLED BY 0B001	2	\$37,032
2A292	PIPING/FITTINGS/VALVES MADE/LINED WITH NAMED ALLOY	2	\$0
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	21	\$9,689,608
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	46	\$88,418,570
2B002	NUMERICALLY CONTROLLED MACHINE TOOLS FOR OPTIC	2	\$3,660,000
2B005	PROCESSING EQUIPMENT OF INORGANIC OVERLAYS/COATINGS	3	\$699,934
2B006	DIMENSIONAL INSPECTION/MEASURING SYSTEMS OR EQUIPM	41	\$3,862,773
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	2	\$137,000
2B009	PRINTED CIRCUIT BOARDS/ROTARY TABLES FOR TOOLS IN	2	\$3,550,000
2B116	VIBRATION TEST SYSTEMS,EQUIPMENT,AND COMPONENTS TH	1	\$520,000
2B201	MACHINE TOOLS FOR REMOVING OR CUTTING METALS	3	\$219,235
2B204	ISOSTATIC PRESSES NOT CONTROLLED BY 2B004 OR 2B104	1	\$860,000
2B206	DIMENSIONAL INSPECTION MACHINES,DEVICES OR SYSTEMS	1	\$161,054
2B226	VACUUM AND CONTROLLED ENVIRONMENT INDUCTION FURNAC	7	\$8,084,500
2B227	VACUUM AND CONTROLLED ATMOSPHERE MELTING/CASTING F	2	\$16,320,100
2B230	PRESSURE TRANSDUCERS	230	\$16,081,576
2B231	VACUUM PUMPS	18	\$709,531
2B290	NUMERICAL CONTROL UNITS/MACHINE TOOLS NOT CNT BY 2	1	\$18,400
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	455	\$46,988,468
2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	60	\$8,166,647
2D001	SOFTWARE FOR EQUIPMENT IN CATEGORY 2A/2B	1	\$1
2D002	ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	8	\$34,005
2D983	EQUIPMENT CONTROLLED BY 2A983	13	\$2,739,023
2E001	TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2B/	14	\$2,609

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
2E002	TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2	11	\$175,151
2E003	OTHER TECHNOLOGY	2	\$1
2E201	TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2A	2	\$0
2E290	TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2A	1	\$0
2E301	TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B	6	\$3
2E983	SOFTWARE CONTROLLED BY 2D983	11	\$19,101
3A001	ELECTRONIC DEVICES/COMPONENTS	125	\$141,427,687
3A002	GENERAL PURPOSE ELECTRONIC EQUIPMENT	32	\$4,209,034
3A225	INVERTERS/CONVERTERS/FREQUENCY CHANGERS/GENERATORS	10	\$280,064
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$500,000
3A233	MASS SPECTROMETERS	227	\$34,640,430
3A991	ELECTRONIC DEVICES AND COMPONENTS	1	\$1
3A992	GENERAL PURPOSE ELECTRONIC EQUIPMENT	1	\$6,980
3A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	1	\$125,300
3B001	EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS	107	\$2,136,746,785
3C001	HETERO-EPITAXIAL MATERIALS	6	\$6,715,640
3C002	RESIST MATERIALS	9	\$19,003,603
3C003	ORGANO-INORGANIC COMPOUNDS DESCRIBED IN THIS ENTRY	32	\$315,047,500
3C004	HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY	39	\$60,690,225
3C005	SILICON CARBIDE WAFERS	1	\$14,700
3C006	SUBSTRATES SPECIFIED IN 3C005	1	\$14,460
3D001	SOFTWARE FOR DEV OR PROD OF EQUIP CERTAIN ITEMS IN	9	\$10
3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	66	\$66
3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	63	\$63
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	347	\$431
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	378	\$379
3E003	OTHER "TECHNOLOGY"	59	\$58
3E101	TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A001 &	1	\$1,000
3E201	TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A	2	\$88,000
3E991	MANUFACTURING AND TEST EQUIPMENT FOR 3B991/92	1	\$1
4A003	DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT	7	\$1,912,359
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	2	\$106,198
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	208	\$208
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	194	\$194
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	229	\$229
5A001	TELECOMMUNICATIONS/TRANSMISSION EQUIPMENT	1	\$720,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	55	\$77,326,488
5B002	TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S	5	\$5
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	216	\$208
5D002	SOFTWARE FOR INFORMATION SECURITY	44	\$24,322,120
5D992	SOFTWARE NOT CONTROLLED BY 5D002	2	\$176
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	504	\$1,304
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	64	\$10,058
6A001	ACOUSTICS	11	\$57,969,227
6A002	OPTICAL SENSORS	4	\$232,658
6A003	CAMERAS	30	\$1,569,008
6A005	OPTICAL EQUIPMENT (LASERS)	27	\$13,177,722
6A006	MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S	7	\$234,701
6A008	RADAR SYSTEMS/EQUIPMENT/ASSEMBLIES	1	\$510,000
6A203	CAMERAS/COMPONENTS NOT CONTROLLED BY ECCN 6A003	8	\$436,465
6A205	LASERS, OTHER THAN THOSE SPECIFIED IN 6A005	3	\$761,952
6A226	PRESSURE SENSORS	1	\$1,884
6B004	OPTICS	3	\$124,500
6D003	OTHER SOFTWARE	1	\$1,000
6E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/	8	\$7
6E002	TECHNOLOGY FOR PRODUCTION OF EQUIPMENT/MATERIALS I	5	\$4
6E201	TECHNOLOGY FOR EQUIPMENT CONTROLLED BY 6A003, 6A005	3	\$3
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	35	\$16,216,189
7D003	OTHER SOFTWARE	5	\$500
7D101	SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,	1	\$500
7E001	TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A	1	\$50
7E004	OTHER TECHNOLOGY	5	\$550
7E101	TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A	3	\$6,500
7E102	TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP	1	\$5,000
8A002	SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES	2	\$16,685
8C001	SYNTACTIC FOAM FOR UNDERWATER USE	1	\$25,360
9A001	AERO GAS TURBINE ENGINES	5	\$95,389,946
9B106	ENVIRONMENTAL CHAMBERS AND ANECHOIC CHAMBERS	3	\$826,764

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
9B990	VIBRATION TEST EQUIPMENT	1	\$270,000
9D001	SOFTWARE FOR DEV OF CERTAIN EQUIP/TECHNOLOGY IN 9A	1	\$100
9D003	SOFTWARE FOR USE OF FADEC FOR CERTAIN PROPULSION S	1	\$100
9D004	SOFTWARE FOR VIBRATION TEST EQUIPMENT	1	\$100
9E003	OTHER TECHNOLOGY	4	\$10,001
TOTAL APPLICATIONS: 3096			
TOTAL CCL'S: 139			
TOTAL DOLLAR VALUE: \$8,840,848,168			

CUBA

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	250	\$3,244,546,864
1A995	PROTECTIVE AND DETECTION EQUIPMENT	1	\$0
1C991	VACCINES, IMMUNOTOXINS AND MEDICAL PRODUCTS	2	\$3,138,250
1C992	OIL WELL PERFORATORS	1	\$0
1C995	MIXTURES CONTAINING PRECUSOR & INTERMEDIATE CHEM	1	\$21,600
2A994	PORTABLE ELECTRIC GENERATORS AND SPECIALLY DESIGNE	3	\$136,295
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$443,270
2B999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	2	\$30,000
3A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	1	\$0
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	2	\$1,376,344
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	2	\$2,250,000
5A991	TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001	5	\$77,103
5A992	INFORMATION SECURITY EQUIPMENT	163	\$1,273,242,739
5D002	SOFTWARE FOR INFORMATION SECURITY	3	\$4,185,600
5D992	SOFTWARE NOT CONTROLLED BY 5D002	9	\$7,401,006
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	1	\$1
5E992	TECHNOLOGY FOR INFORMATION SECURITY/CRYPTOLOGY	1	\$1
7A994	OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT	11	\$45,682
8A002	SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES	2	\$277,000
8A992	UNDERWATER SYSTEMS OR EQUIPMENT	34	\$0
9A991	AIRCRAFT AND CERTAIN GAS TURBINE ENGINES N.E.S.	22	\$0
9E991	TECHNOLOGY FOR THE DEV/PROD/USE WITH ITEMS IN 9A99	11	\$0
TOTAL APPLICATIONS: 446			
TOTAL CCL'S: 22			
TOTAL DOLLAR VALUE: \$4,537,171,755			

GEORGIA

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$7,470
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	2	\$35,035
1A004	PROTECTIVE AND DETECTION EQUIPMENT	1	\$437
1A006	DISPOSAL OF IMPROVISED EXPLOSIVE DEVICES	1	\$5,995
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	1	\$360
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$10,000
1C002	METAL ALLOYS, POWDER OR ALLOYED MATERIALS	1	\$320
1C010	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC	1	\$1,336
1C011	METALS AND COMPOUNDS	1	\$0
1C116	MARAGING STEELS NOT CONTROLLED BY 1C216	1	\$0
1C210	FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C	1	\$352
1C229	HIGH PURITY BISMUTH WITH LOW SILVER CONTENT	1	\$0
1C230	BERYLLIUM	1	\$2,352
1C231	HAFNIUM	1	\$5,860
1C234	ZIRCONIUM, WITH A HAFNIUM CONTENT	1	\$2,020
1C240	NICKEL POWDER OR POROUS NICKEL METAL	1	\$0
2A225	CRUCIBLES MADE OF MATERIALS RESISTANT TO LIQUID AC	1	\$0
2B018	EQUIPMENT ON THE INTERNATIONAL MUNITIONS LIST	1	\$440,657
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$203
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$2,565,000
3A201	ELECTRONIC COMPONENTS NOT CONTROLLED BY 3A001	1	\$320

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$13,500
3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	1	\$20,000
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	7	\$73,814
5D002	SOFTWARE FOR INFORMATION SECURITY	1	\$4
6A003	CAMERAS	1	\$33,500
TOTAL APPLICATIONS: 18			
TOTAL CCL'S: 27			
TOTAL DOLLAR VALUE: \$3,218,535			

IRAQ

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$119,467
0A018	ITEMS ON THE INTERNATIONAL MUNITIONS LIST	5	\$429,012
0A978	SAPS	3	\$509,000
0A979	POLICE HELMETS, SHIELDS AND PARTS	9	\$2,942,385
0A982	THUMBPUFFS, LEG IRONS AND SHACKLES	6	\$485,087
1A004	PROTECTIVE AND DETECTION EQUIPMENT	8	\$3,137,673
1A005	BODY ARMOR	23	\$9,052,640
1A006	DISPOSAL OF IMPROVISED EXPLOSIVE DEVICES	1	\$7,199
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	7	\$46,510,000
1A984	CHEMICAL AGENTS, INCLUDING TEAR GAS	1	\$200,000
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	6	\$4,771,526
1B999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	8	\$1,724,885
1C992	OIL WELL PERFORATORS	18	\$523,470,112
1C999	SPECIFIC MATERIALS, N.E.S.	3	\$364,292
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	11	\$353,256
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$1,900,000
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	3	\$3,915,000
3A292	OSCILLOSCOPES AND TRANSIENT RECORDERS	3	\$106,564
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	2	\$99,528
3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	1	\$10,000
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	3	\$254,200
3E101	TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A001 &	1	\$20,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	10	\$1,769,423
5A991	TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001	1	\$1,650
5B001	EQUIPMENT FOR DEV/PROD OR USE OF ITEMS IN 5A001	1	\$34,814
5D002	SOFTWARE FOR INFORMATION SECURITY	4	\$8
6A003	CAMERAS	3	\$106,291
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$21,567
7A994	OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT	1	\$29,181
7D994	FOTHER SOFTWARE FOR NAVIGATION AND AVIONICS	1	\$3,810
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	10	\$17,031,914
9A980	NON-MILITARY MOBILE CRIME SCIENCE LABORATORIES	1	\$1,080,000
TOTAL APPLICATIONS: 125			
TOTAL CCL'S: 32			
TOTAL DOLLAR VALUE: \$620,460,484			

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
KAZAKHSTAN			
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	3	\$110,998
0A979	POLICE HELMETS, SHIELDS AND PARTS	1	\$37,344
0A984	SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS	2	\$30,847
0A985	DISCHARGE TYPE ARMS	1	\$30,000
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	63	\$9,253,539
1A005	BODY ARMOR	1	\$1,480
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	4	\$7,962,500
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$358
1B119	FLUID ENERGY MILLS	4	\$26,942
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	2	\$29,401
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$440,000
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	1	\$1
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	1	\$1
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	6	\$15,241,670
5D002	SOFTWARE FOR INFORMATION SECURITY	5	\$233,363
6A001	ACOUSTICS	1	\$60,000
6A003	CAMERAS	2	\$122,412
6A006	MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S	1	\$25,000
6D003	OTHER SOFTWARE	1	\$19,000
9A004	SPACECRAFT	8	\$224,476
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$301,615
TOTAL APPLICATIONS: 101			
TOTAL CCL'S: 21			
TOTAL DOLLAR VALUE: \$34,150,947			

KOREA DEMOCRATIC PEO

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	18	\$38,263,083
2A994	PORTABLE ELECTRIC GENERATORS AND SPECIALLY DESIGNE	1	\$20,000
3A992	GENERAL PURPOSE ELECTRONIC EQUIPMENT	1	\$305
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	1	\$1,420
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	1	\$8,488
5A992	INFORMATION SECURITY EQUIPMENT	3	\$57,162
5D992	SOFTWARE NOT CONTROLLED BY 5D002	3	\$0
8A992	UNDERWATER SYSTEMS OR EQUIPMENT	1	\$0
9A991	AIRCRAFT AND CERTAIN GAS TURBINE ENGINES N.E.S.	2	\$0
TOTAL APPLICATIONS: 23			
TOTAL CCL'S: 9			
TOTAL DOLLAR VALUE: \$38,350,458			

KYRGYZSTAN

0A018	ITEMS ON THE INTERNATIONAL MUNITIONS LIST	1	\$5,032
0A978	SAPS	1	\$1,331
0A979	POLICE HELMETS, SHIELDS AND PARTS	1	\$6,900
0A982	THUMBCUFFS, LEG IRONS AND SHACKLES	1	\$5,189
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	7	\$6,703
1A005	BODY ARMOR	1	\$22,150
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	3	\$200,716
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$14,850
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	1	\$83,904
TOTAL APPLICATIONS: 13			
TOTAL CCL'S: 10			
TOTAL DOLLAR VALUE: \$346,775			

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
LAOS			
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$12,500
	TOTAL APPLICATIONS: 1		
	TOTAL CCL'S: 1		
	TOTAL DOLLAR VALUE: \$12,500		
LIBYA			
1A004	PROTECTIVE AND DETECTION EQUIPMENT	2	\$83,440
1A005	BODY ARMOR	1	\$1,873
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$680,000
4A003	DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT	1	\$0
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	1	\$0
	TOTAL APPLICATIONS: 5		
	TOTAL CCL'S: 5		
	TOTAL DOLLAR VALUE: \$765,313		
MACAO			
1C351	HUMAN PATHOGENS, ZOOZOSES, AND TOXINS	1	\$480
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	3	\$179,689
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$110,700
	TOTAL APPLICATIONS: 5		
	TOTAL CCL'S: 3		
	TOTAL DOLLAR VALUE: \$290,869		
MOLDOVA			
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$3,830
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	1	\$50,000
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	1	\$285,000
2D983	EQUIPMENT CONTROLLED BY 2A983	1	\$10,000
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	2	\$35,750
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	2	\$28,748
5D002	SOFTWARE FOR INFORMATION SECURITY	1	\$0
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$300,000
	TOTAL APPLICATIONS: 8		
	TOTAL CCL'S: 9		
	TOTAL DOLLAR VALUE: \$713,328		

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
MONGOLIA			
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$460
1A004	PROTECTIVE AND DETECTION EQUIPMENT	1	\$66,195
1C352	ANIMAL PATHOGENS	1	\$250
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	1	\$1
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	1	\$1
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	1	\$1
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	1	\$1
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	1	\$1
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	1	\$1
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	1	\$1
TOTAL APPLICATIONS: 4			
TOTAL CCL'S: 10			
TOTAL DOLLAR VALUE: \$66,912			

RUSSIA FEDERATION

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	25	\$614,757
0A918	POWER CONTROL SEARCHLIGHTS AND BAYONETS IN 0A918	1	\$0
0A978	SAPS	2	\$378,000
0A979	POLICE HELMETS, SHIELDS AND PARTS	3	\$200,697
0A982	THUMBCHUFFS, LEG IRONS AND SHACKLES	4	\$66,060
0A984	SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS	23	\$1,024,098
0A985	DISCHARGE TYPE ARMS	1	\$7,800
0A986	SHOTGUN SHELLS (EXCEPT BUCKSHOT SHELLS) AND PARTS	2	\$14,569
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	971	\$19,859,808
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	1	\$50,000
1A004	PROTECTIVE AND DETECTION EQUIPMENT	11	\$5,025,386
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	2	\$3,150,000
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	5	\$2,179,841
1A995	PROTECTIVE AND DETECTION EQUIPMENT	1	\$150,000
1A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S	8	\$197,733
1B101	OTHER EQUIPMENT FOR PRODUCTION OF FIBERS/PREFORMS/	1	\$2,863,243
1C006	FLUIDS AND LUBRICATING MATERIALS	2	\$29,200
1C008	NON-FLUORINATED POLYMERIC SUBSTANCES	3	\$4,085,461
1C010	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC	1	\$252,000
1C230	BERYLLIUM	1	\$42,000
1C350	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS	3	\$8,893,000
1D003	SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004	1	\$71,416
1E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00	4	\$5,003
2A291	NUCLEAR REACTOR AND NUCLEAR POWER PLANT RELATED EQ	2	\$132,244
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	6	\$1,743,086
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	6	\$7,654,108
2B007	ROBOTS/CONTROLLERS/END EFFECTORS	1	\$125,800
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	5	\$172,500
2B116	VIBRATION TEST SYSTEMS,EQUIPMENT,AND COMPONENTS TH	1	\$12,830
2B204	ISOSTATIC PRESSES NOT CONTROLLED BY 2B004 OR 2B104	1	\$57,750
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	43	\$5,496,253
2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	1	\$940,800
2D002	ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	7	\$26,405
2D983	EQUIPMENT CONTROLLED BY 2A983	5	\$322,718
2E001	TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2B/	1	\$1
2E003	OTHER TECHNOLOGY	1	\$1
2E983	SOFTWARE CONTROLLED BY 2D983	1	\$1,000
3A001	ELECTRONIC DEVICES/COMPONENTS	88	\$11,719,555
3A002	GENERAL PURPOSE ELECTRONIC EQUIPMENT	7	\$1,071,488
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	2	\$1,191,000
3A228	SWITCHING DEVICES	1	\$40,000
3A292	OSCILLOSCOPES AND TRANSIENT RECORDERS	1	\$16,000
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	15	\$735,250
3A992	GENERAL PURPOSE ELECTRONIC EQUIPMENT	4	\$123,600
3A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	6	\$119,050

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3B001	EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS	4	\$24,659,013
3C001	HETERO-EPITAXIAL MATERIALS	1	\$102,840
3C002	RESIST MATERIALS	1	\$912,000
3C004	HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY	1	\$38,600
3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	2	\$2
3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	1	\$1
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	14	\$0
3D991	GENERAL PURPOSE ELECTRONIC EQUIPMENT FOR 3A992	1	\$12
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	39	\$47
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	50	\$50
3E003	OTHER "TECHNOLOGY"	1	\$1
4A003	DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT	2	\$19,934,300
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	3	\$46,345
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	40	\$40
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	36	\$36
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	41	\$41
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	19	\$1,876,816
5A991	TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001	1	\$8,000
5B002	TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S	1	\$1
5B991	TELECOMMUNICATIONS TEST EQUIPMENT	1	\$103,331
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	37	\$37
5D002	SOFTWARE FOR INFORMATION SECURITY	27	\$570,871
5D991	SOFTWARE FOR DEV/PROD/USE WITH 5B994 TEST EQUIPMEN	1	\$2
5D992	SOFTWARE NOT CONTROLLED BY 5D002	1	\$5,600
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	51	\$77
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	10	\$15
6A001	ACOUSTICS	7	\$41,314,459
6A002	OPTICAL SENSORS	2	\$706,550
6A003	CAMERAS	27	\$1,967,743
6A005	OPTICAL EQUIPMENT (LASERS)	1	\$36,500
6A225	VELOCITY INTERFEROMETERS FOR MEASURING VELOCITIES	1	\$66,525
6D003	OTHER SOFTWARE	1	\$1,000
6E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/	1	\$1
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	8	\$6,715,430
7E102	TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP	1	\$5,000
9A004	SPACECRAFT	48	\$27,302,850
9D003	SOFTWARE FOR USE OF FADEC FOR CERTAIN PROPULSION S	1	\$1
9E003	OTHER TECHNOLOGY	3	\$10,002
TOTAL APPLICATIONS: 1451			
TOTAL CCL'S: 83			
TOTAL DOLLAR VALUE: \$207,245,650			

TAJIKISTAN

0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	4	\$1,786
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$358
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	3	\$181,951
TOTAL APPLICATIONS: 8			
TOTAL CCL'S: 3			
TOTAL DOLLAR VALUE: \$184,095			

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
TURKMENISTAN			
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$325,050
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$26,322
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$7,179,000
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$1,620,000
3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	1	\$40,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	7	\$492,253
5D002	SOFTWARE FOR INFORMATION SECURITY	1	\$3
TOTAL APPLICATIONS: 11			
TOTAL CCL'S: 7			
TOTAL DOLLAR VALUE: \$9,682,628			

UKRAINE

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	4	\$282,125
0A984	SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS	8	\$1,045,038
0A985	DISCHARGE TYPE ARMS	1	\$25,500
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	60	\$9,339,924
1A004	PROTECTIVE AND DETECTION EQUIPMENT	2	\$173,200
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	1	\$2,590,000
1E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00	1	\$5,000
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	2	\$5,318,310
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	6	\$933,000
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	1	\$43,000
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$16,320
2D002	ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	2	\$7,159
2D983	EQUIPMENT CONTROLLED BY 2A983	1	\$15,000
2E983	SOFTWARE CONTROLLED BY 2D983	2	\$40,450
3A001	ELECTRONIC DEVICES/COMPONENTS	1	\$4,500
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	3	\$2,740,000
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	17	\$748,540
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	14	\$0
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	6	\$6
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	7	\$7
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	7	\$7
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	6	\$6
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	7	\$7
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	4	\$932,401
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	6	\$6
5D002	SOFTWARE FOR INFORMATION SECURITY	2	\$0
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	7	\$7
6A003	CAMERAS	8	\$300,899
6A005	OPTICAL EQUIPMENT (LASERS)	1	\$65,500
7A003	INERTIAL NAVIGATION SYSTEMS (GIMBALED/STRAPDOWN)	1	\$160,000
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$3,139,920
7E102	TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP	1	\$5,000
9A004	SPACECRAFT	3	\$139,962
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$72,500
9E003	OTHER TECHNOLOGY	1	\$10,000
TOTAL APPLICATIONS: 135			
TOTAL CCL'S: 35			
TOTAL DOLLAR VALUE: \$28,153,294			

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
UZBEKISTAN			
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$2,500
1A004	PROTECTIVE AND DETECTION EQUIPMENT	1	\$18,000
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	1	\$37,000
2D002	ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	1	\$1
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$2,708,500
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$729,000
3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	1	\$20,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	2	\$7,568
5D002	SOFTWARE FOR INFORMATION SECURITY	1	\$8
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	1	\$348,880
TOTAL APPLICATIONS: 7			
TOTAL CCL'S: 10			
TOTAL DOLLAR VALUE: \$3,871,457			

VIETNAM

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$94,920
0A979	POLICE HELMETS, SHIELDS AND PARTS	1	\$135,000
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	2	\$100,000
1A003	MANUFACTURES OF NON-FLUORINATED POLYMERIC SUBSTANC	1	\$2,000,000
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	1	\$840,000
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$100,000
1A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S	1	\$42,100
1C006	FLUIDS AND LUBRICATING MATERIALS	1	\$1,040
1C008	NON-FLUORINATED POLYMERIC SUBSTANCES	3	\$98,741
1C228	MAGNESIUM CONTAINING IMPURITIES OTHER THAN CALCIUM	1	\$1,000
1C234	ZIRCONIUM, WITH A HAFNIUM CONTENT	2	\$3,572
1C350	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS	6	\$3,329,000
1C351	HUMAN PATHOGENS, ZOONOSES, AND TOXINS	2	\$1,070
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	1	\$50,000
2B006	DIMENSIONAL INSPECTION/MEASURING SYSTEMS OR EQUIPM	1	\$14,000
2B230	PRESSURE TRANSDUCERS	1	\$677
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	12	\$120,739
2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	3	\$59,506
3A001	ELECTRONIC DEVICES/COMPONENTS	2	\$321,201
3A002	GENERAL PURPOSE ELECTRONIC EQUIPMENT	3	\$134,102
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$2,400,000
3A233	MASS SPECTROMETERS	5	\$639,273
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$1,033,160
3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	2	\$2
3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	2	\$2
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	6	\$5
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	4	\$4
3E003	OTHER "TECHNOLOGY"	2	\$2
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	3	\$3
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	1	\$1
4D980	SOFTWARE FOR DEV/PROD/USE WITH 4A980 ITEMS	1	\$10,580,676
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	4	\$4
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	11	\$11,815,369
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	3	\$3
5D002	SOFTWARE FOR INFORMATION SECURITY	8	\$6,629,109
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	7	\$609
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	5	\$5
6A003	CAMERAS	4	\$57,236
6A005	OPTICAL EQUIPMENT (LASERS)	1	\$625
6A203	CAMERAS/COMPONENTS NOT CONTROLLED BY ECCN 6A003	1	\$35,775
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	2	\$281,500
7D101	SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,	1	\$500
7E101	TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A	1	\$500
8A001	SUBMERSIBLE VEHICLES OR SURFACE VESSELS	1	\$11,247,677
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$956,000
9A980	NON-MILITARY MOBILE CRIME SCIENCE LABORATORIES	1	\$200,000
TOTAL APPLICATIONS: 93			

TOTAL CCL'S: 46  
TOTAL DOLLAR VALUE: \$53,324,708

## Appendix F: Report on Domestic Impact of U.S. Exports to Controlled Countries

In accordance with Section 14(e) of the Export Administration Act of 1979 (EAA), as amended, the Bureau of Industry and Security (BIS) continues to assess the impact on U.S. industry and employment of output from “controlled countries”<sup>1</sup> resulting, in particular, from the use of U.S. exports of turnkey plants and manufacturing facilities.

Section 14(e), which was added as an amendment to the Act in 1985, requires the following:

*“... a detailed description of the extent of injury to U.S. industry and the extent of job displacement caused by U.S. exports of goods and technology to controlled countries.”*

*“... a full analysis of the consequences of exports of turnkey plants and manufacturing facilities to controlled countries... to produce goods for export to the United States or compete with U.S. products in export markets.”*

### Goods and Technology Exports

In calendar year 2010, U.S. exports to controlled countries totaled \$107.4 billion, which represents a 28.77 percent increase from 2009 levels of \$83.4 billion and about 8.4% of total U.S. worldwide exports. Historically, the dollar value of trade with controlled destinations, other than China, has been low. China is the largest single export market among the controlled country group, with roughly 86 percent of the total. Russia ranks second with roughly 6 percent of the total. An analysis of exports by commodity category indicates that computer and electronic products, transportation equipment, machinery, chemicals, and waste and scrap represented more than half of the total U.S. exports to controlled countries, especially China. The small share of U.S. exports to controlled countries relative to total U.S. exports (8.4%) suggests that the overall adverse impact through injury to U.S. industry and job displacement is not large, although controls do have greater impact on certain industry sectors and companies.

<b>Controlled Destinations</b>	<b>Calendar Year 2010 U.S. Exports (in millions)</b>
Albania	\$46
Armenia	\$113
Azerbaijan	\$253
Belarus	\$133
Cambodia	\$154

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<sup>1</sup> For the purpose of this section, “controlled countries” are: Albania; Armenia; Azerbaijan; Belarus; Cambodia; China (PRC); Cuba; Georgia; Iraq; Kazakhstan; Kyrgyzstan; Laos; Macao; Moldova; Mongolia; North Korea; Russia; Tajikistan; Turkmenistan; Ukraine; Uzbekistan; and Vietnam.

China	\$91,881
Cuba	\$368
Georgia	\$301
Iraq	\$1,642
Kazakhstan	\$730
Kyrgyzstan	\$79
Laos	\$12
Macao	\$225
Moldova	\$38
Mongolia	\$116
North Korea	\$2
Russia	\$6,006
Tajikistan	\$57
Turkmenistan	\$40
Ukraine	\$1,359
Uzbekistan	\$98
Vietnam	\$3,709
Total Exports to Controlled Destinations	\$107,362
Total Exports to All Countries	\$1,278,263
U.S. Exports to Controlled Destinations as a Percent of Overall U.S. Exports	8.4%
Percent of U.S. Exports to Controlled Destinations Requiring a BIS License	0.9%
Percent of U.S. Exports to Controlled Destinations Subject to a BIS License Requirement	2.3%

Although the basis for our export controls are reasons of national security, foreign policy, and short supply, BIS—as part of its defense industrial base monitoring responsibilities—reviews on an ongoing basis the potential domestic impact of U.S. technology transfers. U.S. and other Western firms choose to establish production facilities in China for a variety of reasons, including: technology transfer requirements imposed by China; a desire to take advantage of China’s large pool of labor; the desire for proximity to the market for their products; and a desire to take advantage of business incentives created by Chinese local and national governments. The United States runs a trade deficit with China (\$273.1 billion in 2010), and more than 50 percent

of China's exports originate from foreign-invested enterprises. Thus, these practices and trends raise concerns with regard to their impact on the competitiveness of U.S. industry and employment over the long term.

A review of licenses applications for exports to China in the past year shows that a significant number involve manufacturing equipment and facilities, electronics, and/or components for use in foreign-invested production facilities. Among the top-valued manufacturing equipment exported in 2010 were equipment for semiconductors, chemical manufacturing facilities, acoustics and electronic components. Examples of the top-valued components are mass spectrometers, integrated circuits and pressure transducers. Many other types of products, such as aircraft, computers and other electronic components are doubtless exported without the need for an export license (i.e., because they are not controlled for national security reasons or are eligible for shipment under a license exception).

BIS also monitors certain forms of technology transfer as part of its overall responsibilities for the defense industrial base. These responsibilities include reviewing the impact of offsets on defense trade, participating in the Treasury Department-chaired Committee on Foreign Investment in the United States, and assessing the health and competitiveness of strategic industry sectors. Further information on these activities, including copies of the industrial sector assessments, is available from BIS's website at [www.bis.doc.gov](http://www.bis.doc.gov).

### **Critical Technology Assessments**

BIS conducts critical technology assessments to examine the impact of export controls on key existing or emerging technologies subject to the Export Administration Regulations (EAR). These technologies are dual-use, meaning they have both civilian and military applications. For a given technology, BIS evaluates the scope and impact of current U.S. export controls, foreign export control practices, the sector's economic status, and the foreign availability (i.e., availability-in-fact, non-U.S. source, sufficient quantity, and comparable quality) of product substitutes.

BIS completed one assessment in CY10. The assessment was entitled *Impact of U.S. Export Controls on Encryption Items*, which examines the impact of export controls and reporting requirements on encryption items controlled under several ECCNs in Part II of Category 5 of the Commerce Control List. The assessment found a negative impact on industry for encryption reporting and licensing requirements.

In FY 2011, BIS initiated the following assessment, whose completion it anticipates in FY 2012:

*Critical Technology Assessment: Night Vision Focal Plane Arrays, Sensors, and Cameras*, which examines the nature of night vision equipment that is controlled under several ECCNs in Category 6 of the Commerce Control List and Category XII of the United States Munitions List.

### **Turnkey Plants and Facilities Exports**

The Export Administration Regulations (EAR) require a license to export certain items for turnkey plants and facilities to controlled destinations. As a result of several revisions to the EAR in recent years, an increasing number of items for turnkey plants and facilities have become eligible for export to controlled destinations without a license or under a license exception. For example, a license is generally not required for exports to controlled destinations (except Cuba and North Korea) of items for turnkey plants and facilities that are designated as EAR99 (the designation for items that are subject to the EAR but not specifically listed on the Commerce Control List). In addition, certain items for turnkey plants and facilities may be listed in a Commerce Control List entry where the applicable reason for control does not require a license to one or more controlled destinations, as indicated in the appropriate Reason for Control column of the Commerce Country Chart.

Other items for turnkey plants and facilities may be eligible for export to controlled destinations under a license exception, such as License Exception CIV (Civil End-Users), which authorizes exports of certain national security-controlled items to civil end-users, for civil end uses, in most controlled countries, except Cuba and North Korea; or License Exception TSU (Technology and Software—Unrestricted), which authorizes exports of operation technology and software, sales technology, and software updates, subject to certain conditions.

U.S. export data that are available from the Bureau of the Census do not provide the level of specificity needed to identify exports of turnkey plants or items for turnkey plants and facilities. This precludes a thorough assessment of the impact of U.S. exports of items for turnkey plants and facilities to controlled countries. However, the small number of such exports in the past, coupled with the low percentage of U.S. exports destined for controlled countries and items subject to a license requirement, make it reasonable to conclude that the ultimate impact on U.S. production is not significant.

## **Appendix G: Agricultural Supply Tables and Information**

The U.S. Department of Agriculture (USDA) regularly updates the World Agricultural Supply and Demand Estimates (WASDE) report. That information may be accessed at:

<http://www.usda.gov/oce/commodity/wasde>

## **Appendix H: Export Control Reform Fact Sheets, Speeches, and Testimony**

### **Fact Sheets**

White House Chief of Staff Daley Highlights Priority for the President's Export Control Reform Initiative, July 19, 2011

<http://www.whitehouse.gov/the-press-office/2011/07/19/white-house-chief-staff-daley-highlights-priority-presidents-export-cont>

### **Speeches**

Under Secretary of Commerce Eric L. Hirschhorn Remarks to BIS Update Conference, July 19, 2010

[http://www.bis.doc.gov/news/2011/hirschhorn\\_update.htm](http://www.bis.doc.gov/news/2011/hirschhorn_update.htm)

Assistant Secretary of Commerce Kevin Wolf Remarks to BIS Update Conference, July 19, 2011

[http://www.bis.doc.gov/news/2011/wolf\\_update.htm](http://www.bis.doc.gov/news/2011/wolf_update.htm)

Commerce Assistant Secretary David W. Mills Remarks to BIS Update Conference, July 20, 2011

[http://www.bis.doc.gov/news/2011/mills\\_update.htm](http://www.bis.doc.gov/news/2011/mills_update.htm)

Under Secretary of Commerce Eric L. Hirschhorn Remarks to U.S.-India High Technology Cooperation Group, July 11, 2011

[http://www.bis.doc.gov/news/2011/hirschhorn\\_high\\_tech.htm](http://www.bis.doc.gov/news/2011/hirschhorn_high_tech.htm)

Under Secretary of Commerce Eric L. Hirschhorn Remarks to American Association of Exporters and Importers, June 6, 2011

[http://www.bis.doc.gov/news/2011/Hirschhorn\\_AAEI\\_speech060611.pdf](http://www.bis.doc.gov/news/2011/Hirschhorn_AAEI_speech060611.pdf)

Assistant Secretary of Commerce Kevin Wolf Remarks to U.S.-Sweden Defense Industry Conference, May 17, 2011

[http://www.bis.doc.gov/news/2011/wolf\\_ussweden\\_defense.htm](http://www.bis.doc.gov/news/2011/wolf_ussweden_defense.htm)

Under Secretary of Commerce Eric L. Hirschhorn Remarks to Export Control Forum, February 28, 2011

[http://www.bis.doc.gov/news/2011/hirschhorn\\_export\\_control\\_forum.htm](http://www.bis.doc.gov/news/2011/hirschhorn_export_control_forum.htm)

Assistant Secretary of Commerce Kevin Wolf Remarks to Exportkontrolltag2011, February 25, 2011

[http://www.bis.doc.gov/news/2011/wolf\\_exportkontrolltag.htm](http://www.bis.doc.gov/news/2011/wolf_exportkontrolltag.htm)

Deputy Under Secretary of Commerce Daniel O. Hill Remarks to C5 European Forum, February 7, 2011

[http://www.bis.doc.gov/news/2011/hill\\_C5\\_forum.htm](http://www.bis.doc.gov/news/2011/hill_C5_forum.htm)

**Testimony**

Testimony by Under Secretary of Commerce Eric L. Hirschhorn before House Foreign Affairs Committee on “Export Controls, Arms Sales, and Reform: Balancing U.S. Interests, Part I”, May 12, 2011

[http://www.bis.doc.gov/news/2011/ehirschhorn\\_testimony05122011.pdf](http://www.bis.doc.gov/news/2011/ehirschhorn_testimony05122011.pdf)