Frequently Asked Questions and Answers

GENERAL QUESTIONS

What is OFAC and what does it do?

The Office of Foreign Assets Control administers and enforces economic sanctions programs primarily against countries and groups of individuals, such as terrorists and narcotics traffickers. The sanctions can be either comprehensive or selective, using the blocking of assets and trade restrictions to accomplish foreign policy and national security goals. [09-10-02]

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How long has OFAC been around?

The Treasury Department has a long history of dealing with sanctions. Dating back prior to the War of 1812, Secretary of the Treasury Gallatin administered sanctions imposed against Great Britain for the harassment of American sailors. During the Civil War, Congress approved a law which prohibited transactions with the Confederacy, called for the forfeiture of goods involved in such transactions, and provided a licensing regime under rules and regulations administered by Treasury.

OFAC is the successor to the Office of Foreign Funds Control (the “FFC”), which was established at the advent of World War II following the German invasion of Norway in 1940. The FFC program was administered by the Secretary of the Treasury throughout the war. The FFC’s initial purpose was to prevent Nazi use of the occupied countries’ holdings of foreign exchange and securities and to prevent forced repatriation of funds belonging to nationals of those countries. These controls were later extended to protect assets of other invaded countries. After the United States formally entered World War II, the FFC played a leading role in economic warfare against the Axis powers by blocking enemy assets and prohibiting foreign trade and financial transactions.

OFAC itself was formally created in December 1950, following the entry of China into the Korean War, when President Truman declared a national emergency and blocked all Chinese and North Korean assets subject to U.S. jurisdiction. [05-02-06]

What does one mean by the term “prohibited transactions”? 

Prohibited transactions are trade or financial transactions and other dealings in which U.S. persons may not engage unless authorized by OFAC or expressly exempted by statute. Because each program is based on different foreign policy and national security goals, prohibitions may vary between programs. [06-16-06]

Are there exceptions to the prohibitions?

Yes. OFAC regulations often provide general licenses authorizing the performance of certain categories of transactions. OFAC also issues specific licenses on a case-by-case basis under certain limited situations and conditions. Guidance on how to request a specific license is found below and at 31 C.F.R. 501.801. [06-16-06]

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How do I determine if I have a valid OFAC match?

Please take the following “due diligence” steps in determining a valid OFAC match.

If you are calling about a wire transfer or other "live" transaction:

1. Is the “hit” or “match” against OFAC’s SDN list or targeted countries, or is it “hitting”
for some other reason (i.e., "Control List" or "PEP," "CIA," "Non-Cooperative Countries and Territories," "Canadian Consolidated List (OSFI)," "World Bank Debarred Parties," "Blocked Officials File," or "government official of a designated country"), or can you not tell what the "hit" is?

- If it's hitting against OFAC's SDN list or targeted countries, continue to 2 below.
- If it's hitting for some other reason, you should contact the "keeper" of whichever other list the match is hitting against. For questions about:
  - The Denied Persons List and the Entities List, please contact the Bureau of Industry and Security at the U.S. Department of Commerce at 202-482-4811.
  - The FBI's Most Wanted List or any other FBI-issued watch list, please contact the Federal Bureau of Investigation (http://www.fbi.gov/contactfo/fo.htm).
  - The Debarred Parties list, please contact the Office of Defense Trade Controls at the U.S. Department of State, 202-663-2700.
  - The Bank Secrecy Act and the USA PATRIOT Act, please contact the Financial Crimes Enforcement Network (FinCEN), 1-800-949-2732.
  - If you are unsure whom to contact, please contact your interdict software provider which told you there was a "hit."
  - If you can't tell what the "hit" is, you should contact your interdict software provider which told you there was a "hit."

2. Now that you've established that the hit is against OFAC's SDN list or targeted countries, you must evaluate the quality of the hit. Compare the name in your transactions with the name on the SDN list. Is the name in your transaction an individual while the name on the SDN list is a vessel, organization or company (or vice-versa)?

- If yes, you do not have a valid match.
- If no, please continue to 3 below.

3. How much of the SDN's name is matching against the name in your transaction? Is just one of two or more names matching (i.e., just the last name)?

- If yes, you do not have a valid match.
- If no, please continue to 4 below.

4. Compare the complete SDN entry with all of the information you have on the matching name in your transaction. An SDN entry often will have, for example, a full name, address, nationality, passport, tax ID or cedula number, place of birth, date of birth, former names and aliases. Are you missing a lot of this information for the name in your transaction?

- If yes, go back and get more information and then compare your complete information against the SDN entry.
- If no, please continue to 5 below.

5. Are there a number of similarities or exact matches?

- If yes, please call the hotline at 1-800-540-6322.
- If no, you do not have a valid match.

If you are calling about an account:

1. Is the "hit" or "match" against OFAC's SDN list or targeted countries, or is it "hitting" for some other reason (i.e., "Control List" or "PEP," "CIA," "Non-Cooperative Countries and Territories," "Canadian Consolidated List (OSFI)," "World Bank Debarred Parties," or "government official of a designated country"), or can you not tell what the "hit" is?

- If it's hitting against OFAC's SDN list or targeted countries, continue to 2 below.
- If it's hitting for some other reason, you should contact the "keeper" of whichever other list the match is hitting against. For questions about:
  - The Denied Persons List and the Entities List, please contact the Bureau of Industry and Security at the U.S. Department of Commerce at 202-482-4811.
  - The FBI's Most Wanted List or any other FBI-issued watch list, please contact the Federal Bureau of Investigation (http://www.fbi.gov/contactfo/fo.htm).
  - The Debarred Parties list, please contact the Office of Defense Trade Controls at the U.S. Department of State, 202-663-2700.
  - The Bank Secrecy Act and the USA PATRIOT Act, please contact the Financial Crimes Enforcement Network (FinCEN), 1-800-949-2732.
  - If you are unsure whom to contact, you should contact your interdict software provider which told you there was a "hit."
  - If you can't tell what the "hit" is, you should contact your interdict software
provider which told you there was a ‘hit.’

2. Now that you’ve established that the hit is against OFAC’s SDN list or targeted countries, you must evaluate the quality of the hit. Compare the name of your account holder with the name on the SDN list. Is the name of your account holder an individual while the name on the SDN list is a vessel, organization or company (or vice-versa)?

- If yes, you do not have a valid match.*
- If no, please continue to 3 below.

3. How much of the SDN’s name is matching against the name of your account holder? Is just one of two or more names matching (i.e., just the last name)?

- If yes, you do not have a valid match.*
- If no, please continue to 4 below.

4. Compare the complete SDN entry with all of the information you have on the matching name of your account holder. An SDN entry often will have, for example, a full name, address, nationality, passport, tax ID or cedula number, place of birth, date of birth, former names and aliases. Are you missing a lot of this information for the name of your account holder?

- If yes, go back and get more information and then compare your complete information against the SDN entry.
- If no, please continue to 5 below.

5. Are there a number of similarities or exact matches?

- If yes, please call the hotline at 1-800-540-6322.
- If no, you do not have a valid match.*

* If you have reason to know or believe that processing this transfer or operating this account would violate any of the Regulations, you must call the hotline and explain this knowledge or belief. [08-22-07]

Where can I find the specific details about the embargoes?

A summary description of each particular embargo or sanctions program may be found in the Sanctions Program and Country Summaries area and in the Regulations by Industry area on OFAC’s website. The text of Legal documents may be found in the Legal Documents area of OFAC’s website which contains the text of 31 C.F.R. Chapter V and appropriate amendments to that Chapter which have appeared in the Federal Register. [09-10-02]

Can I get permission from OFAC to transact or trade with an embargoed country?

OFAC usually has the authority by means of a specific license to permit a person or entity to engage in a transaction which otherwise would be prohibited. In some cases, however, legislation may restrict that authority. [09-10-02]

What must I do to get permission to trade with an embargoed country?

In some situations, authority to engage in certain transactions is provided by means of a general license. In instances where a general license does not exist, a written request for a specific license must be filed with OFAC. The request must conform to the procedures set out in the regulations pertaining to the particular sanctions program. Generally, application guidelines and requirements must be strictly followed, and all necessary information must be included in the application in order for OFAC to consider an application. For an explanation about the difference between a general and a specific license as well as answers to other licensing questions, see the licensing questions link. [09-10-02]

What do you mean by “blocking?”
Another word for it is "freezing." It is simply a way of controlling targeted property. Title to the blocked property remains with the target, but the exercise of powers and privileges normally associated with ownership is prohibited without authorization from OFAC. Blocking immediately imposes an across-the-board prohibition against transfers or dealings of any kind with regard to the property. [09-10-02]

What countries do I need to worry about in terms of U.S. sanctions?

OFAC administers a number of U.S. economic sanctions and embargoes that target geographic regions and governments. Comprehensive sanctions programs include Burma (Myanmar), Cuba, Iran and Sudan. Other non-comprehensive programs include the Western Balkans, Belarus, Cote d'Ivoire, Democratic Republic of the Congo, Iraq, Liberia (Former Regime of Charles Taylor), Persons Undermining the Sovereignty of Lebanon or Its Democratic Processes and Institutions, North Korea, Sierra Leone, Syria and Zimbabwe as well as other programs targeting individuals or entities that could be anywhere. Those programs currently relate to foreign narcotics traffickers, foreign terrorists, WMD proliferators. In addition to targeted countries, it is very important to note that OFAC publishes a list of Specially Designated Nationals and Blocked Persons ("SDN list") which includes over 6,000 names of companies and individuals who are connected with the sanctions targets and are located throughout the world. A number of the named individuals and entities are known to move from country to country and may end up in locations where they would be least expected. U.S. persons are prohibited from dealing with SDNs wherever they are located and all SDN assets are blocked. Because OFAC's programs are dynamic and constantly changing, it is very important to check OFAC's website on a regular basis to ensure that your SDN list is current and you have complete information regarding current restrictions affecting countries and parties with which you plan to do business. [11-16-07]

Who must comply with OFAC regulations?

All U.S. persons must comply with OFAC regulations, including all U.S. citizens and permanent resident aliens regardless of where they are located, all persons and entities within the United States, all U.S. incorporated entities and their foreign branches. In the cases of certain programs, such as those regarding Cuba and North Korea, all foreign subsidiaries owned or controlled by U.S. companies also must comply. Certain programs also require foreign persons in possession of U.S. origin goods to comply. [09-10-02]

How much are the fines for violating these regulations?

The fines for violations can be substantial. Depending on the program, criminal penalties can include fines ranging from $50,000 to $10,000,000 and imprisonment ranging from 10 to 30 years for willful violations. Depending on the program, civil penalties range from $250,000 or twice the amount of each underlying transaction to $1,075,000 for each violation. [11-16-07]

Is there a mechanism for a company to report its past undetected violations of OFAC regulations for completed transactions? Is any type of "amnesty" available for inadvertent failure to comply prior to the company becoming aware of the OFAC regulations?

Yes, a company can and is encouraged to voluntarily disclose a past violation. Self-disclosure is considered a mitigating factor by OFAC in Civil Penalty proceedings. A self-disclosure should be in the form of a detailed letter, with any supporting documentation, to Adam Szubin, Director, Office of Foreign Assets Control, U.S. Department of the Treasury, 1500 Pennsylvania Ave., N.W., Washington, DC 20220. OFAC does not have an "amnesty" program. The ramifications of non-compliance, inadvertent or otherwise, can jeopardize critical foreign policy and national security goals. OFAC does, however, review the totality of the circumstances surrounding any violation, including the quality of a company's OFAC compliance program. [11-16-07]

Can I regard previously issued and published opinion letters, regulatory interpretations, or other statements as guidance for my transactions?

Great care should be taken when placing reliance on such materials to ensure that the transactions in question fully conform to the letter and spirit of the published materials and that the materials have not been superseded. [09-10-02]
Can OFAC change its previously stated, non-published interpretation or opinion without first giving public notice?

Yes, OFAC, therefore, strongly encourages parties to exercise due diligence when their business activities may touch on an OFAC-administered program and to contact OFAC if they have any questions about their transactions. [09-10-02]

Why are there two separate subscription services on OFAC’s website, one called a "Financial Operations Bulletin" and the other a "What's New" notice?

Financial operations bulletins are geared toward the financial operations community, while "What's New" notices are geared toward the general public (including exporters and importers, practicing attorneys, and researchers). Generally speaking, those in the operations areas of banks, brokerage houses, and other financial service providers do not require the level of detail and wealth of information provided in notices to the general public. Instead, they are primarily interested in changes directly impacting their day-to-day operations, such as updates to OFAC’s listing Specially Designated Nationals and Blocked Persons. All "What's New" notices to the general public also contain information from OFAC’s financial operations bulletins. It is not unusual for the date listed for a What's New notice to be later than the date listed for the latest Financial Operations Bulletin. [09-10-02]

QUESTIONS ABOUT SPECIALLY DESIGNATED NATIONALS (SDNs)

What is an SDN?

As part of its enforcement efforts, OFAC publishes a list of individuals and companies owned or controlled by, or acting for or on behalf of, targeted countries. It also lists individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific. Collectively, such individuals and companies are called "Specially Designated Nationals" or "SDNs." Their assets are blocked and U.S. persons are generally prohibited from dealing with them. [09-10-02]

How do I get a copy of this list?

The best way to get the list is from OFAC's website. The list is disseminated in a number of different formats, including fixed field/delimited files that can be integrated into databases. [09-10-02]

How often is the SDN list updated?

The SDN list is frequently updated. There is no predetermined timetable, but rather names are added or removed as necessary and appropriate. [09-10-02]

How do I know what specific changes have been made to OFAC's SDN list?

All changes for the current calendar year are cumulatively available in a .PDF file and in an ASCII version. Cumulative changes for prior years back to 1994 are also available in ASCII format by following this link. The same link will take you to a *.PDF version of the file for calendar year 2001. [11-16-07]

Does OFAC maintain or can it create a country-by-country list of SDNs?

OFAC has long maintained such a list. The file is available for downloading by clicking on the DOS or Windows Delimited SDN List links on OFAC's Website. The file is contained within those self-extracting archives and is called cry_list.txt. It is important to understand that many SDN individuals and entities may operate in countries other than those in which they are based. The relevant regulations prohibit transactions with and/or block the property of SDNs wherever they are located. [09-10-02]
What do I do if I have a match to the SDN list?

If you have checked a name manually or by using software and find a match, you should do a little more research. Is it an exact name match, or very close? Is your customer located in the same geographical area as the SDN? If not, it may be a "false hit." If there are many similarities, contact OFAC’s "hotline" at 1-800-540-6322 for verification. If your "hit" concerns an in-process wire transfer, you may prefer to e-mail your question to OFAC. Unless a transaction involves an exact match, it is recommended that you contact OFAC Compliance before actually blocking assets. [09-10-02]

What is the Control list? Who do I call about the Control list? What is the difference between the Control list and OFAC’s SDN list?

The Control List was developed by the law enforcement community in response to the events of September 11. It is separate from the OFAC’s SDN list and is not disseminated by OFAC. If you have received a copy of this list, you should follow the instructions received with it. [09-10-02]

Questions from Financial Institutions

Does OFAC itself require that banks set up a certain type of compliance program?

No. There is no single compliance program suitable for every financial institution. OFAC is not itself a bank regulator; its basic requirement is that financial institutions not violate the laws that it administers. Financial institutions should check with their regulators regarding the suitability of specific programs to their unique situations. [09-10-02]

How do I get the OFAC Starter Kit?

The Starter Kit is comprised of the SDN list, the brochure for the industry you represent (financial, travel/tourism, insurance, export/import, or securities), and any articles that appear to be of interest based on your specific needs or interest. These documents can be obtained from OFAC’s website or from OFAC’s fax-on-demand service (202/622-0077). [09-18-02]

What do I need to do to comply? Do I have to buy expensive software?

This is primarily a question for your regulator. What constitutes an adequate compliance program depends in large part on who your customers are and what kinds of business you do. Certain areas of bank operations, such as international wire transfers and trade finance, are at a higher risk than others. There are numerous interdiction software packages that are commercially available. They vary considerably in cost and capabilities. If your bank feels it needs to invest in software in its attempt to comply with OFAC regulations, OFAC recommends that you talk to your counterparts in other banks about the systems they have in place and contact vendors for an assessment of your needs. It should be noted that "TXT" and "PDF" versions of OFAC’s SDN list can be manually scanned; OFAC’s "TXT" list can also be queried using standard word processing software. [09-10-02]

How often do I need to scan my customer database for SDNs?

The frequency of running an OFAC scan must be guided by your internal bank policy and procedures. Keep in mind, however, that if your bank fails to identify and block a target account (of a terrorist, for example), there could be "real world" consequences such as a transfer of funds or other valuable property to an SDN, an enforcement action against your bank, and negative publicity. [09-10-02]

How do I know if my compliance program is adequate?

The following information will provide you with areas to consider as you review your OFAC procedures.

How do I setup a compliance program for my bank?
There is no prepackaged compliance program that fits the needs of every bank. Banks, obviously, range in size from small to some of the largest institutions in the world. A good starting point is to go to the OFAC website and look under "Regulations by Industry." Then read the brochure for the Financial Community. This brochure provides insight as to how your particular bank could set up a compliance program. There are also a number of articles written for banking industry publications available on OFAC's website. See, for example, OFAC Primer or Community Banks. It may be helpful to contact your counterparts in other banks to see what they are doing and talk to your regulator. [09-10-02]

What are the features and benefits that banks should be looking for when selecting an OFAC compliance software package?

There are a wide variety of software packages available to the financial community. The size and needs of each institution help to determine what to look for in a package. Some packages are used to interdict sanctioned countries and SDN names in wire transfers, while others are used to check the names of new customers; other packages also filter the names of all account holders. One suggestion for finding the right software for your bank is to research what your peer banks are using and determine if the software package is working for them. Your bank also could talk to a variety of software vendors who can easily be located by doing an internet search. [09-10-02]

How do I block an account or a funds transfer?

Once it has been determined that funds need to be blocked, they must be placed into an interest-bearing account on your books from which only OFAC-authorized debits may be made. The blocking also must be reported to OFAC Compliance within 10 business days. Some banks have opted to open separate accounts for each blocked transaction, while others have opted for omnibus accounts titled, for example, "Blocked Libyan Funds." Either method is satisfactory, so long as there is an audit trail which will allow specific funds to be unblocked with interest at any point in the future. [09-10-02]

How much interest do I have to pay on the blocked funds?

OFAC regulations require that funds earn interest at a commercially reasonable rate, i.e., at a rate currently offered to other depositors on deposits or instruments of comparable size and maturity. [09-10-02]

Can my bank deduct service charges from the account?

Generally yes. In most cases (excluding Iraq, for instance) OFAC regulations contain provisions to allow a bank to debit blocked accounts for normal service charges, which are described in each set of regulations. The charges must be in accordance with a published rate schedule for the type of account in which the funds are maintained. [09-10-02]

Do all OFAC programs involve blocking transactions?

No. OFAC regulations are tailored to further the requirements and purposes of specific Executive Orders or statutes which provide the basic outline of each program. In some cases, the President has determined that a comprehensive asset freeze is appropriate, and in others the President has determined that more limited restrictions (for example, import bans) are in order. The individual program brochures outline the restrictions for each program. [09-10-02]

I understand blocking a transaction, but what is meant by rejecting a transaction? When should a transaction be rejected rather than blocked?

In some cases, an underlying transaction may be prohibited, but there is no blockable interest in the transaction. In these cases, the transaction is simply rejected, or not processed. For example, a U.S. bank would have to reject a wire transfer between two third-country companies (non-SDNs) involving an export to a non-SDN company in Sudan. Since there is no interest of the Government of Sudan or an SDN, there is no blockable interest in the funds. The U.S. bank cannot process the transaction because that would constitute a transaction in support of a commercial activity in Sudan, which
is prohibited by the Sudanese Sanctions Regulations. Similarly, a U.S. bank could not be involved in the financing of a prohibited transaction. A U.S. bank cannot, so much as advise a letter of credit if the underlying transaction is in violation of OFAC regulations. Please note that the Iranian Transactions Regulations contain no blocking provisions.

The following examples may help illustrate which transactions should be blocked and which should be rejected.

- A U.S. bank interdicts a commercial payment destined for the account of XYZ Import-Export Co. at the Bank of Khartoum in Khartoum, Sudan. The Bank of Khartoum is wholly-owned by the Government of Sudan and, accordingly, is a Specially Designated National of Sudan. This payment must be blocked.

- A U.S. bank interdicts a commercial payment destined for the account of ABC Import-Export at Sudanese French Bank, Khartoum, Sudan. Unlike the Bank of Khartoum, Sudanese French Bank, Khartoum is a private sector entity so there is no blockable interest in this payment. However, processing the payment would mean facilitating trade with Sudan and providing a service in support of a commercial transaction in Sudan, therefore the U.S. bank must reject the payment.

- A U.S. bank interdicts a commercial payment originating from a commercial account on its books and destined for the account of the Tehran Computer Corporation at a French bank in Paris. The beneficiary’s address confirms that it’s a company in Iran. This payment must be rejected by the U.S. bank because of the prohibitions against facilitating trade with Iran. The payment is not a "U-Turn" because it was not initiated by a foreign bank.

- A U.S. bank interdicts a commercial payment from a corporate account on its books destined for the account of the French Computer Corporation at Bank Tejarat, in Paris through a correspondent account of Bank Tejarat on the books of a British bank. The beneficiary’s address confirms that it’s a company in France. However, this payment must be rejected by the U.S. bank because Bank Tejarat is owned by the Iranian government, and processing the payment would be facilitating trade with Iran.

- A U.S. bank interdicts a commercial payment destined for the account of the French Computer Corporation at Bank Tejarat, in Paris on the books of a U.S. bank. The beneficiary’s address confirms that it’s a company in France. However, this payment must be rejected by the U.S. bank because the account of Bank Tejarat is an "Iranian account" on the books of a U.S. bank and cannot be operated.

- A U.S. bank interdicts an unlicensed commercial payment going to a private-sector entity in Cuba. Under the Cuban Assets Control Regulations, all property and property interests of Cuban nationals – defined to include any person or entity in Cuba - are blocked. As a result, this payment must be blocked.

Rejected and blocked funds transfers must be reported to OFAC within 10 days. Questions about whether a transaction should be blocked or rejected should be directed to OFAC Compliance. [11-16-07]

My bank operates accounts for individuals living in Iran. OFAC has told us that these accounts cannot be operated. Does this mean that the accounts are blocked?

No, the accounts are restricted. The Iranian sanctions prohibit the export of goods or services to Iran. By operating an account for an individual or company in Iran, the bank would be exporting services to that person or entity in violation of the Iranian Transactions Regulations. The accounts, however, are not blocked. The account holder can close the account and have the funds transferred to his or her account outside the United States. [09-10-02]

I've heard that U-Turn payments are allowed for Iran. What exactly is a U-Turn payment?

A "U-Turn" payment involving Iran is where U.S. dollar transactions involving Iran are cleared through a U.S. bank. Generally speaking, there must be a third-country bank on both sides of a transaction to qualify as a "U-Turn." For example, Bank Tejarat Iran can send funds from its account at a German bank through the German bank’s correspondent in New York to an Italian bank to pay for goods purchased from Italy. The originating and beneficiary banks may not be U.S. banks. [09-10-02]
What do I do if I have a blocked account that needs to be escheated to the state?

You need to discuss this with your state authorities and with OFAC. For instance, the state of New York has a license to escheat blocked funds, pending OFAC approval of each transfer. Banks in New York should contact the State Banking Department for instructions on how to proceed. Banks in other states should contact OFAC directly for instructions on how to proceed. [09-10-02]

If my financial institution receives a wire going to an embassy in a sanctioned country, can we process the transaction?

This depends on the program. If you have a payment involving an embassy in a targeted country, please contact OFAC Compliance for directions (1-800-540-6322). [09-10-02]

Should an institution tell its customer that it blocked their funds, and, if so, how does the institution explain it to them?

An institution may notify its customer that it has blocked funds in accordance with OFAC's instructions. The customer has the right to apply for the unblocking and release of the funds. Information on OFAC's licensing procedures is available on the website. For a copy of the *.PDF application form for the unblocking of funds transfers (TD F 90-22.54), please direct your customer to this link. [09-10-02]

What do I do if a person tries to open an account and the person's name is on OFAC's SDN list? Do I open the account and then block the funds?

A U.S. bank cannot open an account for a person named on the SDN list. This is a prohibited service. However, you should pay careful attention to be sure the person trying to open the account is the same person as the one named on OFAC's list. In many cases you may get a "false positive," where the name is similar to a target's name, but the rest of the information provided by the applicant does not match the descriptor information on OFAC's SDN list. If the bank does come into the possession or control of any property in which a blocked person has an interest, it is obligated to block that property. In other words, if you receive an application to open an account from a person who matches the information on the SDN list, together with an opening deposit, you are obligated to block the funds. The same is true for other banking transactions. If, for example, a customer asks if he or she is allowed to send money to a relative's account with Bank of Khartoum in Sudan, the bank can say "no, that's illegal." If, on the other hand, a bank receives instructions from its customer to debit his or her account and send the funds to Bank of Khartoum, the bank must act on the instructions by blocking the funds which contain a future interest of the Sudanese SDN bank. You might think of the analogy of a bouncing ball. Once the ball starts moving, you must stop it if it comes into your possession. [04-06-05]

Does a financial institution need to scan names against OFAC’s list of targets upon account opening or can it wait for 24 hours to receive a report from its software vendor on whether or not there is a hit?

There is no legal or regulatory requirement to use software or to scan. There is a requirement, however, not to violate the law by doing business with a target or failing to block property. OFAC realizes that financial institutions use software that does not always provide an instantaneous response and may require some analysis to determine if a customer is indeed an SDN. The important thing is not to conclude transactions before the analysis is completed. [09-10-02]

Is there a dollar limit on which transactions are subject to OFAC regulations?

There is no minimum or maximum amount subject to the regulations. [09-10-02]

Does my bank need to check the OFAC list when selling cashier's checks and money orders? In the case of cashier's checks, do I need to check both the purchaser and the payee? As a mortgage lender, do I need to check both the purchaser and the seller's name against the SDN list?

Every transaction that a U.S. financial institution engages in is subject to OFAC regulations. If a bank knows or has reason to know that a target is party to a transaction, the bank's processing of the transaction would be unlawful. [09-10-02]
If a loan meets underwriting standards but is a true "hit" on the OFAC list, what do we use as a denial reason on the adverse action notice?

If you have confirmed with OFAC that you have a "good hit," there is no reason not to explain that to the customer. The customer can contact OFAC directly for further information. [09-10-02]

Through corporate giving programs, many banks contribute toward charities and other non-profits. To what extent does a bank need to review the recipients of these gifts or the principals of the charities?

Donations to charitable institutions must be handled as any other financial transaction. The donating bank or institution should crosscheck the recipient names against OFAC's SDN list and assure that the donations are in compliance with OFAC sanctions programs. [09-10-02]

I just received an interdiction "alert." What do I do?

When your interdiction software or account holder checking service shows a potential match, OFAC recommends that you do an initial analysis prior to contacting OFAC. If you have a reasonably close match to a name on the SDN list and your customer is located in the same vicinity as the SDN, feel free to contact OFAC Compliance. Computer software can only deal with letters and numbers. It will inevitably flag some transactions that are not actually OFAC targets. This is where human intervention becomes critical and some hands-on research may be necessary. Questions that ought be asked by a Compliance Officer before calling OFAC include: Is it an exact name match, or very close? Is the suspect party located in the same general area as the SDN? If there are many similarities, then contact OFAC for verification. Unless you have an exact match or are otherwise privy to information indicating that the hit is a target, it is recommended that you not actually block a transaction without discussing the matter with OFAC. [09-10-02]

When a transaction is rejected or blocked, I have ten days to report it. Do I have to do it in writing or can I call OFAC Compliance and report it that way?

At the moment, OFAC requires that all blocking and reject reports be submitted in writing. Optional reporting forms are available at this link. Reports may be mailed in or faxed to OFAC Compliance at 202-622-2426. Blocking and reject reports must contain a copy of the original transfer instructions. OFAC is currently working with the financial community on a pilot project to permit the filing of such reports electronically. If you wish to participate in the pilot project, please contact OFAC Compliance. [09-10-02]

Is there a requirement for annual reporting of blocked property? Is there a required format?

Yes. A report of blocked property is to be submitted annually by September 30 to OFAC Compliance, Department of the Treasury, Washington, D.C., 20220. The standardized form can be accessed by visiting this link. If you wish to use a different format, please contact OFAC's Blocked Assets Division at 202-622-2440. [09-10-02]

How do I apply for a license to get my money unblocked?

With respect to blocked funds transfers, you will need to submit an application for the release of blocked funds form which is available on OFAC's website under "Forms." You should print this form, complete the required information, attach payment instructions, and mail it to:

Office of Foreign Assets Control
U.S. Department of the Treasury
Treasury Annex
1500 Pennsylvania Avenue, NW
Washington, DC 20220
Attn: Licensing Division

OFAC requests that the application form be submitted in triplicate. The form must be sent by hard copy - fax copies will not be accepted. It is extremely important that the underlying transaction be described in detail and copies of supporting documentation
be included in the package.
[09-10-02]

Can U.S. financial institutions open correspondent accounts for Iraqi financial institutions, or process funds transfers to and from Iraqi financial institutions?

Yes. U.S. financial institutions are authorized to open correspondent accounts for, and process funds transfer to or on behalf of Iraqi financial institutions. [07-27-04]

How do I differentiate between an "inquiry" and a "payment instruction" when a customer wants to send a wire transfer to a sanctioned party or country?

In those programs with blocking provisions, OFAC's regulations block all "property" in which a target has an interest. The term "property" is very broadly defined, including present, future or contingent interests. In the case of a wire transfer, the bank will be holding blocked property upon the receipt of concrete instructions from its customer to send the funds. In this case, the funds must be blocked and reported to OFAC within ten days. If, on the other hand, a customer simply asks "Can I send money to Cuba?" there is no blockable interest in the inquiry and the bank can answer the question or direct them to OFAC. The same logic applies to cases where the transaction would be required to be rejected under OFAC regulations. There is not technically a "reject" item until the bank receives instructions from its customer to debit its account and send the funds. [09-17-04]

I have an account with a W-8 showing an address in Iran. Is the account automatically restricted?

In the absence of information proving to your satisfaction that the account holder is not in Iran, you should consider the account restricted based on the W-8 filing. [06-24-05]

Does a financial institution have the obligation to screen account beneficiaries for compliance with OFAC regulations?

"Property," as defined in OFAC regulations, includes most products that financial institutions offer to their clients. "Property interest," as defined by OFAC, includes any interest whatsoever, direct or indirect, present, future or contingent. Given these definitions and as a matter of sound banking practice, it is prudent for financial institutions to screen account beneficiaries upon account opening, while updating account information, when performing periodic screening and, most definitely, upon disbursing funds. Where there is a property interest of a sanctions target under a blocking program, the property must be blocked. Beneficiaries include, but are not limited to, trustees, children, spouses, non-spouses, entities and powers of attorney. [12-04-06]

I have a customer outside of the United States that has a transaction with Bank Saderat that was entered into prior to September 8, 2006. Since the transaction is in U.S. dollars, it would normally settle through the United States. This was allowed as a U-Turn transaction prior to September 8, 2006. Can we still process this transaction for our customer using the 90 day wind-down period?

No. All U-turn transactions involving Bank Saderat were prohibited as of September 8, 2006, including those related to interbank money market deposits, loans to other banks, and foreign exchange deals entered into prior to that date. [12-04-06]

QUESTIONS FROM EXPORTERS & IMPORTERS

Does OFAC have an exporter assistance phone line?

Yes. The number is 1-800-540-6322 (local: 202-622-2490). Staff includes individuals with extensive experience working at the Trade Information Center at Commerce headquarters in Washington, D.C., running workshops on international trade, and even assisting with articles in Export America magazine. [09-10-02]
Specially Designated Nationals and Blocked Persons (SDNs) are individuals and entities located throughout the world that are blocked pursuant to the various sanctions programs administered by OFAC. SDNs can be front companies, parastatal entities, or individuals determined to be owned or controlled by, or acting for or on behalf of, targeted countries or groups. They also can be specially identified individuals such as terrorists or narcotics traffickers. U.S. persons are prohibited from engaging in any transactions with SDNs and must block any property in their possession or under their control in which an SDN has an interest. SDNs are designated primarily under the statutory authority of the Trading With the Enemy Act, the International Emergency Economic Powers Act, the Anti-Terrorism and Effective Death Penalty Act and the Foreign Narcotics Kingpin Designation Act. Implementing regulations can be found in Chapter V, Title 31 of the U.S. Code of Federal Regulations.

The Bureau of Industry and Security ("BIS") of the U.S. Department of Commerce maintains separate lists for the purposes of the programs that it administers (including the Denied Persons List and the Entity List). The Denied Persons List consists of individuals and companies that have been denied export and re-export privileges by BIS. The Entity List consists of foreign end users who pose an unacceptable risk of diverting U.S. exports and the technology they contain to alternate destinations for the development of weapons of mass destruction. Accordingly, U.S. exports to those entities may require a license. Authority for the Denied Persons List and the Entity List can be found in Title 15, Part 764, Supplement No. 2 and Title 15, Part 744, Supplement No. 4 of the U.S. Code of Federal Regulations, respectively.

The foreign policy objectives and legal requirements of the SDN list are significantly different from those of the BIS lists. The Commerce lists do not involve a full trade embargo of all goods and services nor do they require U.S. persons to block property. They are concerned with issues of export privileges and export licensing. The unique goals of the OFAC and BIS programs preclude the creation of a unified "master list." [09-09-02]

**QUESTIONS RELATED TO NGO REGISTRATION NUMBERS**

How do I get an NGO registration number?

Pursuant to 31 CFR §538.521 (Sudan) and 31 CFR §537.523 (Burma) registration numbers may be issued to nongovernmental organizations involved in humanitarian or religious activities in certain areas of Sudan and Burma. NGOs can provide assistance in the Specified Areas of Sudan without a specific license or registration number. The Specified Areas of Sudan are identified as Southern Sudan, Southern Kordofan/Nuba Mountains State, Blue Nile State, Abyei, Darfur and marginalized areas in and around Khartoum. Marginalized areas include the following official camps for internally displaced persons: Mayo, El Salam, Ward El Bashir and Soba. NGOs involved in humanitarian or religious activities in the non-Specified Areas of Sudan need to apply for a specific license or registration number. Specific guidelines for NGO registration can be found on OFAC's website under "Guidelines and Information for Sudan" under "Sanctions Programs and Country Summaries." This document outlines the necessary steps for becoming a registered NGO. These guidelines can also be found in 31 CFR §501.801(c). Providing all of the required information will help to expedite the registration process. [11-16-07]

What are the chances that my application will be approved?

Each application is reviewed on a case-by-case basis and often requires interagency consultation. Although we cannot predict how long this review might take, following existing application guidelines will help to expedite your determination. [09-10-02]

Do I need a registration number or license to donate goods?

Most OFAC sanctions programs provide exemptions to their prohibitions for certain donated goods, such as articles to relieve human suffering. This is not the case for all programs, however. If you wish to donate food to Sudan, for example, you must apply for a specific license. You should refer to the legal section of OFAC's website for the regulations applicable to the specific target or target country of your donation. [09-10-02]

**QUESTIONS FROM THE INSURANCE INDUSTRY**
State insurance statutes regulate an insurer's ability to withhold claim payments, cancel policies or to decline to enter into policies. In some cases, insurers must commit an ostensible violation of state insurance regulations to comply with OFAC regulations. Does OFAC have a position as to whether OFAC regulations preempt state insurance regulations in this context?

OFAC's regulations under the Trading with the Enemy Act and the International Emergency Economic Powers Act are based on Presidential declarations of national emergency and preempt state insurance regulations. OFAC regulations are not federal insurance regulations, they are regulations promulgated under the President's exercise of foreign-affairs and national emergency powers. [09-10-02]

At what point must an insurer check to determine whether an applicant for a policy is an SDN?

If you receive an application from an SDN for a policy, you are under an obligation not to issue the policy. Remember that when you are insuring someone, you are providing a service to that person. You are not allowed to provide any services to an SDN. If the SDN sends a deposit along with the application, you must block the payment. [09-10-02]

What should an insurer do if it discovers that a policyholder is or becomes an SDN-cancel the policy, void the policy ab initio, non-renew the policy, refuse to pay claims under the policy? Should the claim be paid under a policy issued to an SDN if the payment is to an innocent third-party (for example, the injured party in an automobile accident)?

The first thing an insurance company should do upon discovery of such a policy is to contact OFAC Compliance. OFAC will work with you on the specifics of the case. It is possible a license could be issued to allow the receipt of premium payments to keep the policy in force. Although it is unlikely that a payment would be licensed to an SDN, it is possible that a payment would be allowed to an innocent third party. The important thing to remember is that the policy itself is a blocked contract and all dealings with it must involve OFAC. [09-10-02]

A workers' compensation policy is with the employer, not the employee. Is it permissible for an insurer to maintain a workers compensation policy that would cover a person on the SDN List, since the insurer is not transacting business with the SDN, but only with his/her employer?

If an insurer knows that a person covered under the group policy is an SDN, that person's coverage is blocked, and if he or she makes a claim under the policy, the claim cannot be paid. If an insurer does not know the names of those covered under a group policy, it would have no reason to know it needed to block anything unless and until an SDN files a claim under that policy. At that point its blocking requirement would kick in. [03-12-03]

How frequently is an insurer expected to scrub its databases for OFAC compliance?

That is up to your firm and your regulator. Remember that a critical aspect of the designation of an SDN is that the SDN's assets must be frozen immediately, before they can be removed from U.S. Jurisdiction. If a firm only scrubs its database quarterly, it could be 3 months too late in freezing targeted assets. The SDN list may be updated as frequently as a few times a week or as rarely as once in six months. [09-10-02]

Is it sufficient if my company screens life insurance policies only prior to policy issuance?

That's up to your firm and your regulators. Conducting screening only before policy issuance is critical but would not likely achieve your desired level of compliance. After the policy issuance, the U.S. Government may designate an existing policyholder or a named beneficiary as a Specially Designated National or Blocked Person ("SDN"), or it may expand sanctions with respect to a particular country, or impose sanctions against a new country. If an existing policyholder or a named beneficiary became an SDN or otherwise subject to U.S. sanctions, the insurer may be required to "block" the policy, report such blocking to OFAC within 10 days of the SDN designation, place any future premiums into a blocked, interest-bearing account at a U.S. financial institution, and seek an OFAC license before making any payments under the policy. Consequently,
routine screening of all policies in force against OFAC's SDN list, as frequently updated, would enable the insurer to comply with the applicable OFAC regulatory requirements. It also is important to screen the policyholder and beneficiary prior to paying a claim. [05-01-03]

If my policyholder, who is a U.S. person, requests a change of beneficiaries and designates a cousin living in Cuba as a beneficiary under the life insurance policy, what shall I do?

In general, an insurance policy is considered "property" and a beneficiary's interest in the policy is considered an "interest in property" that may require blocking under the applicable regulations. The Cuban Assets Control Regulations, however, contain a general license that deals with transactions involving blocked life insurance policies. 31 C.F.R. § 515.528. In this case, the only blocked interest is that of a beneficiary, so the general license would authorize the insurer to accept premium payments and interest on policy loans as well as to pay loans to the insured or process the insured's request for a change of beneficiary. Also, the insurer would be authorized under the general license to deduct premiums from cash surrender value, if any, or accumulate dividends or otherwise increase cash surrender value on the books of the insurer, pursuant to the terms of the policy. However, the insurer usually cannot pay an entire claim (the face amount of the policy) to the beneficiary without a specific license from OFAC. Recent amendments to the Cuban regulations authorize by general license remittances to a Cuban beneficiary of up to $300 per quarter from a blocked account at a U.S. banking institution if the funds in that account were deposited there as a result of a payment from a life insurance policy triggered by the death of the policy holder. If you have a blocked policy, you should seek legal advice or contact OFAC for further guidance regarding the handling of that particular account. [05-01-03]

If my screening efforts uncover a policyholder who became an SDN after policy issuance, can I notify the policyholder that the policy is "blocked"?

Yes, the insurer may notify the policyholder that the policy is blocked, without obtaining a specific license from OFAC. [05-01-03]

In my letter to the policyholder whose policy is "blocked," may I also instruct the policyholder not to send any more premium or that we will not accept additional premium under this account?

The insurer may instruct the policyholder as follows: "If you send any more premium, we are required under applicable U.S. laws and regulations to place such funds in a blocked account. If you have any questions, please contact the U.S. Department of Treasury's Office of Foreign Assets Control." [05-01-03]

How can an insurer participate in worldwide insurance markets through global insurance policies if, by definition, coverage extends to potential risks in sanctioned countries?

The best and most reliable approach for insuring global risks without violating U.S. sanctions law is to insert in global insurance policies an explicit exclusion for risks that would violate U.S. sanctions law. For example, the following standard exclusion clause is often used in open marine cargo policies to avoid OFAC compliance problems: "whenever coverage provided by this policy would be in violation of any U.S. economic or trade sanctions, such coverage shall be null and void." The legal effect of this exclusion is to prevent the extension of a prohibited service (insurance or risk assumption) to sanctioned countries, entities or individuals. It essentially shifts the risk of loss for the underlying transaction back to the insured - the person more likely to have direct control over the economic activity giving rise to the contact with a sanctioned country, entity or individual. [11-16-07]

What if the commercial setting and/or market circumstances of a global insurance policy does not permit the use of an OFAC exclusion such as the one noted above?

OFAC recognizes that U.S. insurers often compete in international markets where non-U.S. insurers are willing and able to issue global insurance policies without a U.S. sanctions exclusion. In cases where such an exclusion is not commercially feasible, the insurer should apply for a specific OFAC license for the global insurance policy. In making a licensing determination, OFAC will review the facts and circumstances of each global insurance policy, including both risk frequency and risk severity, to assure that issuance of the policy will not undermine U.S. foreign policy goals. A separate
license would be required for the insurer to pay claims arising under any authorized
global insurance policy. [11-16-07]

Can an insurer offer global travel insurance and worldwide travel assistance
without violating U.S. sanctions?

The provision of all travel related services are authorized for all OFAC country
sanctions programs (including Burma, Iran and Sudan) except Cuba. Travel related
services may only be provided in Cuba pursuant to a valid general or specific OFAC
license. If the traveler is a U.S. person traveling to Cuba pursuant to a valid OFAC
license, travel insurance may be issued to the traveler by a U.S. insurer without a
separate license. While there are some instances when U.S. persons travel to Cuba
without a valid license (and thus pose sanctions problems for U.S. travel insurers), U.S.
travel insurance providers most frequently face sanctions problems when they offer
travel insurance products to third country nationals traveling to Cuba. In such cases the
U.S. insurer must obtain a license to issue the travel insurance product. Additionally,
insurers must also be sure to check OFAC’s list of Specially Designated Persons to
ensure that no services of any kind are rendered to persons or entities on this list. [02-
11-08]

CONSUMER CREDIT REPORT

What Is This OFAC Information On My Credit Report?

Credit bureaus and agencies in particular have adopted new measures to ensure
compliance with OFAC regulations. Before issuing a credit report, they use special
"interdiction" software developed by the private sector to determine if a credit applicant
is on the SDN list. This software matches the credit applicant’s name and other
information to the individuals on the SDN list. If there is a potential match, the credit
bureaus are placing a "red flag" or alert on the report. This does not necessarily mean
that someone is illegally using your social security number or that you have bad credit.
It is merely a reminder to the person checking your credit that he or she should verify
whether you are the individual on the SDN list by comparing your information to the
OFAC information. If you are not the individual on the SDN list, the person checking
your credit should disregard the OFAC alert, and there is no need to contact OFAC.
However, if the person checking your credit believes you are the person on the SDN
list, then he or she should call the OFAC Hotline to verify and report it.

How Can I Get The OFAC Alert Off My Credit Report?

A consumer has the right under the Fair Credit Reporting Act (FCRA), 15 U.S.C. 1681
et seq., to request the removal of incorrect information on his/her credit report. To
accomplish this, consumers should contact the credit reporting agency or bureau that
issued the credit report. For more information on consumers’ rights under the FCRA,
visit the Federal Trade Commission’s website at
http://www.ftc.gov/os/statutes/ocrjump.shtm

ONLINE COMPLIANCE

Can I send money to a sanctioned country using a third-country company’s
website? Can I buy gifts for someone in a sanctioned country over the Internet?
The websites tell me that it’s ok because they themselves are not sanctioned
parties.

You cannot do something indirectly that you would not be able to do directly. Therefore,
these sites can be used to facilitate authorized transactions, but you cannot use them
to perform a transaction which would be in violation of U.S. law. For example, the
Cuban Assets Control Regulations authorize any U.S. person to send $300/quarter to
any individual in Cuba. The U.S. remitter can use a third-country provider to send these
funds to Cuba. If the person attempts to send more than $300/quarter to any one
individual, however, he or she is in violation of U.S. law and subject to penalties.
Another example is booking tourist travel to Cuba using an Internet travel service
provider in a third country. Spending money on tourism is prohibited by the CACR,
regardless of how the travel is booked or how it is paid for. Ultimately some of these
funds will end up in Cuba in violation of U.S. law. The fact that the trip was booked
through a third-country company, either in person or over the internet, is irrelevant. [04-
13-04]
My company provides money remittance and account services via the Internet. Does OFAC have any compliance guidance for this type of business?

Complying with United States sanctions policy presents unique challenges to institutions that operate exclusively on the Internet. The Internet has often been thought of as an "anonymous venue" in that e-commerce transactions can be conducted in relative privacy with little or no face-to-face contact among the parties in a transaction. This anonymity creates a significant challenge for Internet businesses that wish to satisfy their due diligence requirements.

In order to be compliant with OFAC-governed sanctions regulations, US jurisdiction entities must ensure that they are not:

A. Engaging in trade or transaction activities that violate the regulations behind OFAC’s country-based sanctions programs, and;

B. Engaging in trade or transaction activities with sanctions targets named on OFAC’s list of Specially Designated Nationals and Blocked Persons (SDN’s).

A number of Internet-based financial service companies already developed Internet Protocol (IP) address blocking procedures. These companies use publicly available data to maintain tables of IP addresses based on geographic region. Users attempting to initiate an online transaction or access an account from a sanctioned country are blocked based on their IP address. While this approach is effective, it does not fully address an Internet firm’s compliance risks. The fact that international distribution authorities can reassign IP blocks makes the geographic location of an IP potentially dynamic.

The anonymous character of Internet-based transactions often places obstacles in the path of rigorous compliance practices. Firms that facilitate or engage in e-commerce should do their best to know their customers directly. In order to minimize their liabilities, Internet remittance and account service firms should attempt to gather authentic identification information on their customers before a new account is opened or new transaction is initiated. This information will help confirm the customer’s identity and help the e-commerce firm ensure it is not conducting business with a sanctions target. Currently many Internet remittance companies use credit card authentication as the primary method of confirming a customer’s identity. While this method is technologically expedient, it does not meet the standards of due diligence normally found in the non-Internet-based financial community. A company cannot rely on another firm’s compliance program in order to mitigate risk.

It is recommended that e-commerce firms gather and record "purpose of payment" information on each transaction they process. In the non-Internet sector, financial institutions are able to stop in-process transactions and gather more information on them. Due to the level of automation found within the Internet financial sector, this type of in-process information gathering is not always possible. Collecting information on the purpose of payments up front will allow Internet firms to better screen outgoing and incoming transactions for potential violations. [04-13-04]

LICENSING QUESTIONS

What is a license?

A license is an authorization from OFAC to engage in a transaction that otherwise would be prohibited. There are two types of licenses: general licenses and specific licenses.

A general license authorizes a particular type of transaction for a class of persons without the need to apply for a license.

A specific license is a written document issued by OFAC to a particular person or entity, authorizing a particular transaction in response to a written license application.

Persons engaging in transactions pursuant to general or specific licenses must make sure that all conditions of the licenses are strictly observed.

OFAC’s regulations may contain statements of OFAC’s specific licensing policy with respect to particular types of transactions. [05-18-08]
Do I have to fill out a particular form to get a license to engage in a transaction?

Most license applications do not have to be submitted on a particular form. However, it is essential to include in the request all necessary information as required in the application guidelines or the regulations pertaining to the particular embargo program. When applying for a license, provide a detailed description of the proposed transaction, including the names and addresses of any individuals/companies involved. The mailing address for license applications is:

Office of Foreign Assets Control
U.S. Department of the Treasury
Treasury Annex
1500 Pennsylvania Avenue, NW
Washington, DC 20220
Attn: Licensing Division

Further contact information can be found under the "Contacts" section of OFAC's website. Depending upon the transaction, there may be specific guidance available on OFAC's website under relevant "Guidelines and Information" in "Sanctions and Country Program Summaries." [06-16-06]

Can I appeal a denial of my license application?

A denial by OFAC of a license application constitutes final agency action. The regulations do not provide for a formal process of appeal. However, OFAC will reconsider its determinations for good cause, for example, where the applicant can demonstrate changed circumstances or submit additional relevant information not previously made available to OFAC. [09-10-02]

How can I find out the status of my pending license application?

OFAC will notify applicants in writing as soon as a determination has been made on their application. The length of time for determinations to be reached will vary depending on the complexity of the transactions under consideration, the scope and detail of interagency coordination, and the volume of similar applications awaiting consideration. Applicants are encouraged to wait at least two weeks before telephonically contacting the Licensing Division at (202) 622-2490 or the Compliance Division at (202) 622-2490 to inquire about the status of their application. [06-16-06]

What agencies other than Treasury review OFAC license applications and what are the roles of these other agencies?

Many of OFAC's licensing determinations are guided by U.S. foreign policy and national security concerns. Numerous issues often must be coordinated with the U.S. Department of State and other government agencies, such as the U.S. Department of Commerce. Please note that the need to comply with other provisions of 31 C.F.R. chapter V, and with other applicable provisions of law, including any aviation, financial, or trade requirements of agencies other than the Department of Treasury's Office of Foreign Assets Control. Such requirements include the Export Administration Regulations, 15 C.F.R. Parts 730 et seq., administered by the Department of Commerce, and the International Traffic in Arms Regulations, 22 C.F.R. Parts 120-130, administered by the Department of State. [06-16-06]

Is a license required to enter into an over-flight permit agreement with the Cuban Civil Air Authority, even if there is no cost?

Yes. A permit from the Government of Cuba is property in which the Government of Cuba has an interest. Therefore, a license from OFAC is necessary prior to obtaining the permit, even if no funds are changing hands at this point in the process. Many U.S. companies provide permitting and payment services on behalf of their clients. If such a facilitator holds an OFAC license to obtain the permits and make the payments to the Government of Cuba, there is no need for each individual client to obtain a separate OFAC authorization. [01-06-06]

What format options are permitted for submitting license applications pursuant to the Trade Sanctions Reform and Export Enhancement Act of 2000 (TSRA)?

OFAC permits two format options for submitting TSRA license applications: hard-copy and CD-ROM. Applications submitted using a CD-ROM, however, must be accompanied by a cover letter that includes some essential information: the purpose of
the application and the applicant's full contact information. If either the cover letter or the pertinent information is missing, the application is considered incomplete and risks delay or rejection.

In addition, the CD-ROM should contain an electronic copy of the application. OFAC prefers that the application be saved as a pdf file on the CD-ROM; however, this is not required. [06-14-2007]

How should I present my TSRA license application?

Applicants should clearly enumerate in a table format all pertinent information related to their proposed transactions, including: a) Full names and addresses of all parties involved in the transactions and their roles, including financial institutions and any Iranian or Sudanese broker (identify company principals), purchasing agent (identify company principals), end-user(s) (full contact name), or other participants involved in the purchase of the proposed export items; and b) If applicable, the commodity classification numbers that are associated with the proposed export items. [06-14-2007]

What is the procedure for submitting multiple copies of the same TSRA license application?

OFAC requires applicants to submit each individual application in a separate envelope, accompanied by a separate cover letter. Applicants should not submit multiple applications in a single envelope with a single cover letter. If you submit applications in that manner, you may encounter some delay in the processing of your applications. Therefore, in order to prevent such delay, submit one application with one cover letter per envelope. [06-14-2007]

If I am submitting multiple TSRA license applications at the same time, should I send them under a single cover letter?

OFAC requires applicants to submit each individual application in a separate envelope, accompanied by a separate cover letter. Applicants should not submit multiple applications in a single envelope with a single cover letter. If you submit applications in that manner, you may encounter some delay in the processing of your applications. Therefore, in order to prevent such delay, submit one application with one cover letter per envelope. [06-14-2007]

Should I send a sample of the proposed export product as an attachment to my TSRA license application?

No. OFAC does not require samples of proposed export products to be sent as attachments to any application. OFAC does not need to examine samples of the actual product in making its final determination. Therefore, please do not include any samples with your application.

TECHNOLOGY QUESTIONS

Does OFAC provide its SDN List in a format that can be easily imported into a database?

Yes. OFAC's SDN list is available in XML, fixed-field and delimited formats that can be imported into a variety of software programs. [12-19-07]

Does OFAC provide its SDN List in an Excel or other spreadsheet format?

OFAC publishes the SDN data in a comma separated values format (CSV). This format is recognized by Excel and other spreadsheet programs and can be imported into spreadsheet format by simply opening the file in your default spreadsheet application [09-14-07]

OFAC says it has updated its SDN list, but when I download the appropriate SDN files from the OFAC website, they appear to be out-of-date. Where can I get the latest SDN information?

OFAC has rigorous quality control procedures in place to ensure that all SDN data are current and accurate when they are released. All of the SDN information is downloaded and checked by OFAC personnel using the same interface that any member of the

public might employ. A number of local issues can impact a user’s ability to download current information; many of these issues are associated with caching done by a user’s browser or by the firewall/security systems that protect a specific enterprise. OFAC can only offer technical support when it comes to OFAC provided data and OFAC managed systems (like the OFAC website or OFAC FTP servers). If you continue to have difficulty downloading the latest SDN information, OFAC recommends that you contact your internal IS/IT support and request their assistance in resolving a caching issue. Users having specific problems opening the PDF/Adobe Acrobat version of the SDN list may also review the information available here. [03-20-2008]

What is the delimiter in OFAC’s delimited files?

The delimiter varies based upon the file type. Files that end in .DEL have an @ (at) symbol as the delimiter. Files that end in .CSV have a comma delimiter. Files that end in .FF have a fixed width delimiter. Files that end in .PIP use the | (pipe) symbol as a delimiter. [06-14-07]

Does OFAC have a web-based SDN search engine?

No. OFAC website users must search the SDN list manually. Users can search the PDF version of the SDN list using the “find” feature of the Adobe Acrobat Reader. Most word processing programs also have a search function to scan OFAC’s ASCII versions of the SDN list. Individuals with specific, technical questions about searching should contact OFAC’s Compliance hotline (1-800-540-6322) for assistance. [09-10-02]

How are OFAC’s delimited files structured?

All of OFAC’s delimited files are described in OFAC’s SDN data file specification. [06-14-07]

Does OFAC maintain its files in locations other than on its website?

Yes. OFAC maintains many of its critical files on a File Transfer Protocol (FTP) server run by the Government Printing Office. This server can be accessed at: ftp://fedbbs.access.gpo.gov. The server will accept an anonymous login. OFAC’s data is stored in the directories listed below.

- gpo_bbs/fac_sdn - SDN data and delimited files
- gpo_bbs/fac_bro - country and program brochures
- gpo_bbs/fac_dlim - SDN data files in un archived format

The delimited files are stored in archives that have different names from those on OFAC’s web site. DOS delimited files are stored in sdall.exe, windows delimited files are stored in sdallw32.exe, and the standard zip archive is called sdall.zip. The individual components of OFAC’s delimited files are also stored in a GPO directory called “gpo_bbs/fac_dlim”. [06-14-07]

OFAC also maintains its own FTP server.

This server can be accessed at: ftp://ofactp.treas.gov. The server will accept an anonymous login. OFAC’s data is stored in the directories listed below.

- /fac_sdn - SDN data and delimited files
- /fac_bro - country and program brochures
- /fac_dlim - SDN data files in un archived format

The delimited files are stored in archives that have different names from those on OFAC’s web site. DOS delimited files are stored in sdall.exe, windows delimited files are stored in sdallw32.exe, and the standard zip archive is called sdall.zip. [06-14-07]

Is there a version of the SDN data file archive that works with UNIX, Linux or other command line operating systems?
Yes. The standard zip archive should work with most UNIX and Linux systems and is available on OFAC's FTP site and GPO's FTP site. [06-14-07]

Does OFAC have an email service that will notify me when there are updates to the SDN list?

Yes. OFAC has two separate subscription services available. These services can be accessed by clicking on the links in the bottom, left corner of OFAC's homepage (www.treas.gov/ofac).

OFAC also maintains a Really Simple Syndication (RSS) feed. This feed is updated whenever the OFAC site is updated. [06-14-07]

Your FTP site has gone offline. Who should I contact to remedy this problem?

The FTP site at ofacftp.treas.gov is run by OFAC. Contact OFAC's support hotline at 1-800-540-6322 for technical support. [02-07-03]

The FTP site at fedbbs.access.gpo.gov is run by the Government Printing Office (GPO). OFAC acts as a content provider to this system and is not responsible for its administration. Users experiencing problems with the FEDBBS system should contact GPO's technical support line at (202) 512-1530. [09-10-02]

I am a systems administrator looking to design an automated process that will download the SDN list without human intervention. How can I do this given that changes to the SDN list can be sporadic?

While OFAC cannot give specific advice on how to design an automated system for SDN downloads, many institutions solve this problem by setting up a scheduled download of the SDN list. These firms conduct their own risk assessments and decide how often they need to download the list in order to comply with U.S. law. [09-10-02]

I am a database administrator at a financial institution and am responsible for keeping my company's SDN data current. Is the SDN list comprehensive or do I need to download some kind of supplement to the list every time there is an update?

The SDN list is comprehensive. Database administrators can overwrite any old data in their systems with the latest versions of the delimited files, thus ensuring that their database is current. [09-10-02]

Do you offer the OFAC Financial Operations Bulletin in a delimited format?

No. OFAC's Financial Operations Bulletin is only available in a free-form, ASCII text file. Database administrators interested in refreshing their databases with new SDN data should use the comprehensive delimited files available on OFAC's web site. [09-10-02]

I am looking for the terrorist list on your web site so I can bring my company in compliance with U.S. law. Where can I find this list?

OFAC's regulations are broader than the specific laws that deal with the terrorists and persons who support them. All individuals and entities that fall under U.S. jurisdiction should use OFAC's comprehensive list of Specially Designated Nationals. This list includes the designated terrorists and is available on OFAC's website. It is important to note that some OFAC sanctions, such as those pertaining to Iraq, Libya, Sudan, and Cuba, apply to persons acting on behalf of those targeted governments even if those persons do not appear on the SDN list. It is also important to note that OFAC's Cuba sanctions prohibit transactions with Cuban nationals, wherever located. U.S. persons are expected to exercise due diligence in determining whether any such persons are involved in a proposed transaction. [09-10-02]

I'm a subscriber to OFAC's Recent OFAC Actions and Financial Operations Bulletin e-mail notification Listservs. For some reason I have stopped receiving
the broadcast messages when OFAC updates its website. Why is this?

You may have responded to one of these incoming messages. Responding to a broadcast message removes you from the subscription list. If you wish to provide feedback to OFAC without inadvertently removing yourself from the subscription list, you should write to us at our support e-mail address (O_F_A_C@do.treas.gov). Also note that if you have an "out of the office" message that replies to all e-mails in your absence, this, too, will result in your being deleted from the subscription list. If you'd like to re-subscribe, please do so here [link to: http://www.treas.gov/offices/enforcement/ofac/subscriberecent.html] [12-22-03]

I recently attempted to subscribe to one of OFAC's e-mail list services and I have not yet received my confirmation e-mail. Why is this?

Failure to receive a confirmation e-mail is typically (though not always) the result of a configuration problem on the user's end. The user should follow these steps to ensure that he or she is using the system properly.

1. Be patient. For a variety of reasons e-mail sometimes take a little longer than expected to reach a user. If you do not receive a confirmation e-mail within a day of subscribing, proceed to step 2.

2. Confirm that you have entered the correct e-mail address and address punctuation. A surprising number of errors have been the result of users accidentally using commas instead of periods.

3. Check to see if you have a SPAM filter in place. SPAM filters have a variety of configurations. Some of these filters have been known to erroneously block e-mails originating from OFAC's list servers. OFAC cannot provide technical support for local configuration issues. If you believe a SPAM filter is preventing you from receiving OFAC e-mails, please discuss the matter with your IT department or network administrator. You will need to have your IT personnel allow e-mails from the following domain to come through the SPAM filter "subscriptions.treas.gov". Once this is done you may proceed to step 4. If you can confirm that you do not have a SPAM filter in place or any other local configuration problem, please skip step 4 and proceed to step 5.

4. If your network or e-mail client's configuration is preventing you from receiving your subscription confirmation e-mail, it is likely that you will not be able to receive e-mail from OFAC's list servers even if OFAC manually adds you to our listserv. These configuration issues must be resolved with your IT department or network administrator before you can proceed.

5. If, after you have exhausted all of the above options, you still fail to receive OFAC's broadcast notifications, please call our support hotline at 1-800-540-6322. [12-19-07]
PART 121—THE UNITED STATES MUNITIONS LIST

ENUMERATION OF ARTICLES

Sec.
121.1 General. The United States Munitions List.
121.2 Interpretations of the U.S. Munitions List and the Missile Technology Control Regime Annex.
121.3 Aircraft and related articles.
121.4 [Reserved]
121.5 Apparatus and devices under Category IV(a).
121.6–121.7 [Reserved]
121.8 End-items, components, accessories, attachments, parts, firmware, software and systems.
121.9 [Reserved]
121.10 Forgings, castings and machined bodies.
121.11 Military demolition blocks and blasting caps.
121.12–121.14 [Reserved]
121.15 Vessels of war and special naval equipment.
121.16 Missile Technology Control Regime Annex.


SOURCE: 58 FR 39287, July 22, 1993, unless otherwise noted.

ENUMERATION OF ARTICLES

§121.1 General. The United States Munitions List.

(a) The following articles, services and related technical data are designated as defense articles and defense services pursuant to §§38 and 47(7) of
the Arms Export Control Act (22 U.S.C. 2778 and 2789(f)). Changes in designations will be published in the Federal Register. Information and clarifications on whether specific items are defense articles and services under this subchapter may appear periodically through the Internet Web site of the Directorate of Defense Trade Controls.

(b) Significant military equipment: An asterisk precedes certain defense articles in the following list. The asterisk means that the article is deemed to be "Significant Military Equipment" to the extent specified in §120.7 of this subchapter. The asterisk is placed as a convenience to help identify such articles. Note that technical data directly related to the manufacture or production of any defense articles enumerated in any category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(c) Missile Technology Control Regime Annex (MTCA). Certain defense articles and services are identified in §121.16 as being on the list of MTCA Annex items on the United States Munitions List. These articles as specified in §120.29 of this subchapter and appear on the list at §121.16.

**Category I—Firearms, Close Assault Weapons and Combat Shotguns**

*(a) Nonautomatic and semi-automatic firearms to caliber .50 inclusive (12.7 mm).*

*(b) Fully automatic firearms to .50 caliber inclusive (12.7 mm).*

*(c) Firearms or other weapons (e.g. insurgeny-counterinsurgeny, close combat weapons systems) having a special military application regardless of caliber.*

*(d) Combat shotguns. This includes any shotgun with a barrel length less than 18 inches.*

*(e) Silencers, mufflers, sound and flash suppressors for the articles in (a) through (d) of this category and their specifically designed, modified or adapted components and parts.*

*(f) Riflescopes manufactured to military specifications (See category XII(c) for controls on night vision devices).*

*(g) Barrels, cylinders, receivers (frames) or complete breech mechanisms for the articles in paragraphs (a) through (d) of this category.*

*(h) Components, parts, accessories and attachments for the articles in paragraphs (a) through (g) of this category.*

*(i) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME. The following interpretations explain and amplify the terms used in this category and throughout this subchapter:*

*(1) A firearm is a weapon not over .50 caliber (12.7 mm) which is designed to expel a projectile by the action of an explosive or which may be readily converted to do so.*

*(2) A rifle is a shoulder firearm which can discharge a bullet through a rifled barrel 16 inches or longer.*

*(3) A carbine is a lightweight shoulder firearm with a barrel under 16 inches in length.*

*(4) A pistol is a hand-operated firearm having a chamber integral with or permanently aligned with the bore.*

*(5) A revolver is a hand-operated firearm with a revolving cylinder containing chambers for individual cartridges.*

*(6) A submachine gun, "machine pistol" or "machine gun" is a firearm originally designed to fire, or capable of being fired, fully automatically by a single pull of the trigger. Note: This coverage by the U.S. Munitions List in paragraphs (a) through (i) of this category excludes any non-combat shotgun with a barrel length of 18 inches or longer, BB, pellet, and muzzle loading (black powder) firearms. This category does not cover riflescopes and sighting devices that are not manufactured to military specifications. It also excludes accessories and attachments (e.g., belts, slings, after market rubber grips, cleaning kits) for firearms that do not enhance the usefulness, effectiveness, or capabilities of the firearm, components and parts. The Department of Commerce regulates the export of such items. See the Export Administration Regulations (15 CFR parts 730-799). In addition, license exemptions for the items in this category are available in various parts of this subchapter (e.g., §§123.17, 123.18 and 123.4).*

**Category II—Guns and Ammunition**

*(a) Guns over caliber .50 (.12.7mm), whether towed, airborne, self-propelled, or fixed, including but not limited to, howitzers, mortars, cannons and recoilless rifles.*

*(b) Flame throwers specifically designed or modified for military application.*

*(c) Apparatus and devices for launching or delivering ordnance, other than those articles controlled in Category IV.*

*(d) Kinetic energy weapon systems specifically designed or modified for destruction or rendering mission-achieved targets.*

*(e) Signature control materials (e.g., parasitic, structural, coatings, screening) techniques, and equipment specifically designed,
developed, configured, adapted or modified to alter or reduce the signature (e.g., muzzle flash suppression, radar, infrared, visual, laser/electro-optical, acoustic) of defense articles controlled by this category.

*(f) Engines specifically designed or modified for the self-propelled guns and howitzers in paragraph (a) of this category.

(g) Tooling and equipment specifically designed or modified for the production of defense articles controlled by this category.

(h) Test and evaluation equipment and test models specifically designed or modified for the articles controlled by this category. This includes but is not limited to diagnostic instrumentation and physical test models.

(i) Autoloading systems for electronic programming of projectile function for the defense articles controlled in this category.

(j) All other components, parts, accessories, attachments and associated equipment specifically designed or modified for the articles in paragraphs (a) through (l) of this category. This includes but is not limited to mounts and carriages for the articles controlled in this category.

(k) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (j) of this category. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(l) The following interpretations explain and amplify the terms used in this category and elsewhere in this subchapter:

(1) The kinetic energy weapons systems in paragraph (d) of this category include but are not limited to:

(i) Launch systems and subsystems capable of accelerating masses larger than 0.1g to velocities in excess of 1.6km/s, in single or rapid fire modes, using methods such as: electromagnetic, electrothermal, plasma, light gas, or chemical;

(ii) Prime power generation, electric armor, energy storage, thermal management, conditioning, switching or fuel-handling equipment, and the electrical interfaces between power supply gun and other turret electric drive function;

(iii) Target acquisition, tracking fire control or damage assessment systems; and

(iv) Homing seeker, guidance or divert propulsion (lateral acceleration) systems for projectiles.

(2) The articles in this category include any end item, component, accessory, attachment part, firmware, software or system that has been designed or manufactured using technical data and defense services controlled by this category.

(3) The articles specifically designed or modified for military application controlled in this category include any article specifically developed, configured, or adapted for military application.

CATEGORY III—AMMUNITION/ORDNANCE

*(a) Ammunition/ordnance for the articles in Categories I and II of this section.

(b) Ammunition/ordnance handling equipment specifically designed or modified for the articles controlled in this category, such as, belting, linking, and de-linking equipment.

(c) Equipment and tooling specifically designed or modified for the production of defense articles controlled by this category.

(d) Components, parts, accessories, attachments and associated equipment specifically designed or modified for the articles in this category:

*(1) Guidance and control components for the articles in paragraph (a) of this category.

*(2) Safing, arming and fusing components (including target detection and localization devices) for the articles in paragraph (a) of this category; and

(3) All other components, parts, accessories, attachments and associated equipment specifically designed or modified for the articles in paragraphs (a) through (d) of this category.

(e) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(f) The following explains and amplifies the terms used in this category and elsewhere in this subchapter:

(1) The components, parts, accessories and attachments controlled in this category include, but are not limited to cartridge cases, powder bags (or other propellant charges), bullets, jackets, cores, shells (excluding shotgun shells), projectiles (including canister rounds and submunitions therefore), boosters, fusing components therefore, primers, and other detonating devices for the defense articles controlled in this category.

(2) This category does not control cartridge and shell casings that, prior to export, have been rendered useless beyond the possibility of restoration for use as a cartridge or shell casing by means of heating, flame treatment, mangling, crushing, cutting or popping.

(3) Equipment and tooling in paragraph (c) of this category does not include equipment for hand-loading ammunition.

(4) The articles in this category include any end item, component, accessory, attachment, part, firmware, software, or system that has been designed or manufactured
Department of State

cating technical data and defense services controlled by this category.
(6) The articles specifically designed or modified for military application controlled in this category include any article specifically developed, configured, or adapted for military application

CATEGORY IV—LAUNCH VEHICLES, GUIDED MISSILES, BALLISTIC MISSILES, ROCKETS, TORPEDOES, BOMBS AND MINES

* (a) Rockets (including but not limited to meteorological and other sounding rockets), bombs, grenades, torpedoes, depth charges, land and naval mines, as well as launchers for such defense articles, and demolition blocks and blasting caps. (See §121.11.)
* (b) Launch vehicles and missile and antimissile systems including but not limited to guided, tactical and strategic missiles, launchers, and systems.

(c) Apparatus, devices, and materials for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles in paragraphs (a) and (b) of this category. (See §121.5.)
* (d) Missile and space launch vehicle propulsion.
* (e) Military explosive excavating devices.

(7) Ablative materials fabricated or semi-fabricated from advanced composites (e.g., silsesquioxane, graphite, carbon, carbon/carbon, and boron filament) for the articles in this category that are derived directly from or specifically developed or modified for defense articles.
* (g) Non-nuclear warheads for rockets and guided missiles.

(a) All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in this category.

(i) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category. (See §125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY V—EXPLOSIVES AND ENERGETIC MATERIALS, PROPELLANTS, INCENDIARY AGENTS AND THEIR CONSTITUENTS

* (a) Explosives, and mixtures thereof:
(1) ADNBF (aminodinitrobenezofuroxan or 7-Amino 4,6-dinitrobenezofuroxan-1-oxide) (CAS 97096-78-1);
(2) BNCP (cis-bis (3-nitrotetrazolato) tetraaminecobalt (III) perchlorate) (CAS 117412-28-9);
(3) CL-14 (diamino dinitrobenzofuroxan or 5,7-diamino-4,6-dinitrobenzofurazane-1-oxide) (CAS 117997-74-1);
(4) CL-20 (HNHandle or Hexanitrohexaazaisowurtzitane) (CAS 135356-90-4); clathrates of CL-20 (see paragraphs (c)(3) and (f) of this category);
(5) CF (2,4,5-cyanotetrazolato) pentaaminecobalt (III) perchlorate (CAS 70247-32-4);
(6) DADE (1,1-diamino-2,2-dinitroethylenedicyclohexylamine) (FOXY);
(7) DDF (1,4-dinitrodifuranopiperazine) (CAS 194996-77-6);
(8) DIPAM (3,5-Diamino-2,2',4',6',6'-hexanitrobiphenyl or dipicramide) (CAS 17215-44-6);
(9) DNGU (DINGU or dinitroglycerol) (CAS 55318-84-8);
(10) Furazans, as follows:
(i) DAARF (diaminoazoxyfurazan) (CAS 7664-98-5);
(ii) DAARF (diaminosulfurazan) (CAS 7664-98-5);
(11) HMX and derivatives (see paragraph (g) of this category):
(i) HMX (Cyclotetramethylenehexametranitramine; octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazine; 1,3,5,7-tetranitro-1,3,5,7-tetrazo-cyclooctane; octogen, octogen) (CAS 2691-41-0);
(ii) Difluoromethylated analogs of HMX;
(iii) K-55 (2,4,5,8-tetranitro-2,4,6,8-tetraazaazabicyclo [3,3,0]octane-3,3,7,7-tetranitromethylglycoluril, or keto-bicyclic HMX) (CAS 130256-72-3);
(12) RNAD (hexanitroadamantane) (CAS 143850-71-9);
(13) HNS (hexanitrostilbene) (CAS 20082-22-0);
(15) Imidazoles, as follows:
(i) BNNII (Otohydro-2,5-bis(nitroimino)imidazo [4,5-ii]imidazole);[1]
(ii) DNI (2,4-dinitroimidazole) (CAS 5213-49-0);[1]
(iii) PDIA (1-fluoro-2,4-dinitroimidazole);[1]
(iv) NTNDIA (N-(2-nitrotetrazolato)-2,4-dinitro-imidazoles);[1]
(v) PTA (1-picyrly-2,4,5-trinitroimidazole);[1]
(16) NTNMI (1-(2-nitrotetrazolato)-2-dinitromethylene hydrazine);[1]
(17) NTO (ONTA or 3-nitro-1,2,4-triazole-5-one) (CAS 932-64-9);
(18) Polynitrouracilines with more than four nitro groups;
(19) PYX (2,6-Bis(picrylamino)-3,5-dinitropyridine) (CAS 38982-89-2);
(20) RDX and derivatives:
(i) RDX (cyclotrimethylene trinitramine), cyclonite, T4, hexahydro-1,3,5-trinitro-1,3,5-triazine, 1,3,5-trinitro-1,3,5-triazacyclohexane, hexogen, or hexogen) (CAS 121-22-4);
(ii) KETO-RDX (K-6 or 2,4,6-trinitro-2,4,6-triazacyclohexanone (CAS 119569-33-1);
(21) TAGN (Triaminoguanidinonitrile) (CAS 4000-16-2);
(22) TATB (Triaminotrinitrobenzene) (CAS 3538-38-6) (see paragraph (g)(7) of this category); 
(23) TEDDZ (3,3,7,7-tetraisodifluoroamine) octahydro-1,5-dinitro-1,5-disilicone; 
(24) Tetrazoles, as follows: 
   (i) NTNT (2-nitrotriazole); 
   (ii) NTNT (1-N-(2-nitrotriazole)-4-nitrotetrazole); 
(25) Tetryl (trinitrophenylmethylnitramine) (CAS 479-45-6); 
(26) TNAD (1,4,5,8-tetranitro-1,4,5,8- 
tetraasacetalin) (CAS 135971-16-6) (see paragraph (g)(6) of this category); 
(27) TNAZ (1,1,3-trinitroasetidine) (CAS 97645-24-4) (see paragraph (g)(6) of this category); 
(28) TGU (SORGUIUL or 
   tetrynitruglycoluril) (CAS 55510-03-7); 
(29) TNP (1,4,5,8-tetranitro-pyridazine [4,5- 
dipyridazine]) (CAS 229176-04-9); 
(30) Triazines, as follows: 
   (i) DNAM (2-oxo-4,6-dinitroamino-a-triazine) (CAS 15059-98-0); 
   (ii) NSNMT (2-nitromino-5-nitro-hexahydro-
   1,3,5-triazine) (CAS 13090-13-4); 
   (iii) Triazoles, as follows: 
      (i) 5-azido-3-nitrotriazole; 
      (ii) ADMTDN (4-amino-3,5-dihydrazino-
      1,2,4-triazole) (CAS 1814-08-0); 
      (iii) ADNT (1-amino-3,5-dinitro-1,2,4-tri-
      azole); 
      (iv) BDNTA (Bis-dinitrotiazole)amine); 
      (v) DBT (3,3′-dinitro-5,5′-bi-1,2,4-triazole) 
      (CAS 30003-46-4); 
      (vi) DMT (dinitrotriazole) (CAS 70890-
      46-9); 
   (vii) NTDNA (2-nitrotiazole 5-dinitramide) 
      (CAS 75382-34-9); 
   (viii) NTDNIT (1-N-(2-nitrotiazole) 3,5-
      dinitro-triazole); 
   (ix) FDTN (1-picryl-3,5-dinitrotiazole); 
   (x) FACOT (tetranitrotiazolobenzotiazole) (CAS 
      23243-36-1); 
(32) Any explosive not listed elsewhere in paragraph (a) of this category with a 
   detonation velocity exceeding 3,700m/s, or with a detonation pressure exceeding 34 
   Gpa (540 kbar). 
(33) Any other explosive not listed elsewhere in paragraph (a) of this category 
   yielding detonation pressures of 25 Gpa (250 
   kbar), or more that will remain stable at temperatures of 533K (360°C) or higher for 
   periods of 5 minutes or longer; 
(34) Diaminotrinitrobenzene (DATR) (CAS 1630-09-8); 
(35) Any other explosive not elsewhere 
   identified in this category specifically de-
   signed, modified, adapted, or configured 
   (e.g., formulated) for military application. 
* (b) Propellants: 
(1) Any United Nations (UN) Class 1.1 solid 
   propellant with a theoretical specific im-
   pulse (under standard conditions) of more 
   than 250 seconds for non-metalized, or 270 
   seconds for metalized compositions; 
(2) Any UN Class 1.3 solid propellant with 
   a theoretical specific impulse (under standard 
   conditions) of more than 250 seconds for 
   non-halogenized, or 260 seconds for non-met-
   allized compositions; 
(3) Propellants having a force constant of 
   more than 1,200 kJ/kg; 
(4) Propellants that can sustain a steady-
   state burning rate more than 33mm/s under 
   standard conditions (as measured in the form 
   of an inhibited single strand) of 6.89 Mpa (88.3 
   bar) pressure and 293K (21°C); 
(5) Esteromodified cast double based 
   propellants with extensibility at maximum 
   stress greater than 5% at 233 K (-40°C); 
(6) Any propellant containing substances 
   listed in Category V; 
(7) Any other propellant not elsewhere 
   identified in this category specifically de-
   signed, modified, adapted, or configured (e.g., formulated) for military application. 
(8) Pyrotechnics, fuels and related 
   substances, and mixtures thereof: 
   (i) Alane (aluminum hydride) (CAS 7784-21-
   6); 
   (2) Carborane; decaborane (CAS 17702-41-
   9); pentaborane and derivatives thereof; 
   (3) Hydrazine and derivatives: 
      (i) Hydrazine (CAS 302-01-2) in concentra-
      tions of 70% or more (not hydrazine mixtures 
      specially formulated for corrosion control); 
      (ii) Monomethyl hydrazine (CAS 60-34-4); 
      (iii) Symmetrical dimethyl hydrazine (CAS 
      540-73-8); 
      (iv) Unsymmetrical dimethyl hydrazine (CAS 
      57-14-7); 
   (4) Liquid fuels specifically formulated for 
   use by articles covered by Categories IV, VI, 
   and VIII; 
   (5) Spherical aluminum powder (CAS 7429-
   90-5) in particle sizes of 60 micrometers or 
   less manufactured from material with an 
   aluminum content of 99% or more; 
   (6) Metal fuels in particle form whether 
   spherical, atomised, spheroidal, flaked or 
   ground, manufactured from material con-
  aining of 99% or more of any of the fol-
   lowing: 
   (i) Metals and mixtures thereof: 
      (A) Beryllium (CAS 7440-41-7) in particle 
      sizes of less than 60 micrometers; 
      (B) Iron powder (CAS 7439-89-6) with 
      particle size of 3 micrometers or less produced 
      by reduction of iron oxide with hydrogen; 
      (ii) Mixtures, which contain any of the fol-
      lowing: 
      (A) Boron (CAS 7440-42-8) or boron carbide 
      (CAS 12093-32-8) fuels of 85% purity or higher 
      and particle sizes of less than 60 micromers; 
      (B) Zirconium (CAS 7440-67-7), magnesium 
      (CAS 7439-06-4) or alloys of these in particle 
      sizes of less than 60 micrometers; 
      (iii) Explosives and fuels containing the 
      metals or alloys listed in paragraphs (c)(6)(i)
and (c)(6)(ii) of this category whether or not the metals or alloys are encapsulated in aluminum, magnesium, zirconium, or beryllium;
(7) Pyrotechnics and pyrophoric materials specifically formulated for military purposes to enhance or control the production of radiated energy in any part of the IR spectrum.
(8) Titantium subhydride (TiHn) of stoichiometry equivalent to n = 0.65-1.68;
(9) Military materials containing thickeners for hydrocarbon fuels specially formulated for use in flame throwers or incendiary munitions; metal stearates or palmates (also known as octol); and M1, M2 and M3 thickeners;
(10) Any other pyrotechnic, fuel and related substance that is not otherwise included in this category specifically designed, modified, adapted, or configured (e.g., formulated) for military application.
(Oxidizers, to include:
(1) ADN (ammonium dinitramide or SR-12) (CAS 14058-78-6);
(2) AP (ammonium perchlorate) (CAS 7790-98-9);
(3) BDNPN (bis[2,3-dinitropropyl]nitrate) (CAS 23494-34-6);
(4) DNAD (1,3-dinitro-1,3-diazetidine) (CAS 7806-66-7);
(5) HAN (Hydroxylammonium nitrate) (CAS 13496-08-2);
(6) HAP (Hydroxylammonium perchlorate) (CAS 15888-25-9);
(7) HNF (Hydraxinum nitroformate) (CAS 20733-33-8);
(8) Hydrazine nitrate (CAS 37636-27-4);
(9) Hydrazine perchlorate (CAS 27978-54-7);
(10) Liquid oxidizers comprised of or containing inhibited red fuming nitric acid (IFAPA) (CAS 8007-55-7) or oxygen difluoride;
(11) Perchlorates, chlorates, and chlorates composed with powdered metal or other high energy fuel components controlled by this category;
(12) Any other oxidizer not otherwise identified in this category specifically designed, modified, adapted, or configured (e.g., formulated) for military application.
(13) Binders, and mixtures thereof:
(1) AMMO (azidomethylmethyloxetane and its polymers) (CAS 80083-29-7) (see paragraph (g)(1) of this category);
(2) BAMO (bisazidomethylxetane and its polymers) (CAS 17907-20-4) (see paragraph (g)(1) of this category);
(3) BTPTN (butanetrioltrinitrate) (CAS 8859-60-5) (see paragraph (g)(3) of this category);
(4) FAMAO (3-difluorooromethyl-3-azidomethyl oxetane) and its polymers;
(5) PEPO (bis[2-fluoro-2,2-dinitroethy]formal) (CAS 17003-79-1);
(6) GAF (giricyclidamide polymer) (CAS 143179-24-9) and its derivatives;
(7) HTFB (hydroxy terminated polybutadiene) with a hydroxyl functionality equal to or greater than 2.2 and less than or equal to 2.4, a hydroxyl value of less than 0.77 meq/g, and a viscosity at 30 °C of less than 47 poise (CAS 69102-90-5);
(8) NENAS (nitratobutylnitramine compounds) (CAS 17096-47-6, 85568-73-1 and 82189-82-6);
(9) Poly-NIMMO (polynitratomethylxetane, poly-NMNO, poly[5-nitratomethyl-3-methyl oxetane] (CAS 84051-81-0);
(10) Energetic monomers, plasticizers and polymers containing nitro, azido nitrate, nitrazo or difluorodiazino groups specially formulated for military use;
(11) TVOPA 1,2,3-Tris [1,2-bis(difluoroamino) ethoxy] propane; tris vinyloxy propene adduct (CAS 5192-38-6);
(12) Polynitroorthocarbonates;
(13) FPF-1 (poly-2,3,3,4,4-hexafluoro pentane-1,5-dioformal) (CAS 376-06-6);
(14) FPF-3 (poly-2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-dioformal);
(15) FGN (Polyfluoridineitrates or poly[5-nitratomethyl] oxirane; poly-GLYN); (CAS 27814-48-8);
(16) N-methyl-p-nitroaniline;
(17) Low (less than 10,000 molecular weight), alcohol-functionalized, poly(epichlorhydrin); poly(epichlorohydrin), and triol;
(18) Bis[2,3-dinitropropyl] formal and acetal;
(19) Any other binder and mixture thereof not elsewhere identified in this category specifically designed, modified, adapted, or configured (e.g., formulated) for military application.
(1) Basic copper salicylate (CAS 62320-94-9);
(2) BHEGA (Bis[2-hydroxyethyl]glycolamide) (CAS 17499-41-9);
(3) Ferrocene Derivatives:
(1) Butacene (CAS 13586-62-4);
(2) Catocene (2,2-Bi[ethylferrocenyl propane] (CAS 37299-45-1);
(3) Ferrocene carboxylic acids;
(4) n-butyl-ferrocene (CAS 31904-29-7);
(5) Lead beta-resorcylate (CAS 20068-32-7);
(6) Lead citrate (CAS 14426-80-3);
(7) Lead-copper olelates of beta-resorcylate or salicylates (CAS 6811-07-4);
(7) Lead maleate (CAS 19136-34-6);
(8) Lead salicylate (CAS 17646-74-9);
(9) Lead stannate (CAS 12036-31-6);
(10) MAPO (tris-1-(2-methyl)aziridinyl phosphine oxide) (CAS 57-39-6); BOBBA-5 (bis-2-methyl aziridinyl 2-(2-hydroxypropanoxy) propylaminio phosphine oxide); and other MAPO derivatives;
(11) Methyl BAPO (Bis[2-methyl aziridinyl methylamino phosphine oxide) (CAS 85988-72-0);
(12) 3-Nitroa-1,5 pentane disiocyanate (CAS 7455-61-0);
§ 121.1

(13) Organo-metallic coupling agents, specifically:

(i) Neopentyl[diallyl]oxy, tri(diocetyl)phosphatotitanate (CAS 103850-22-3); also known as titanium IV, 2,2-bis 2-propenolatomethyl, butanolato, tri(diocetyl)phosphate (CAS 110438-25-6), or LICA 12 (CAS 103850-22-3);

(ii) Titanium IV, [2-propenolato-1] methyl, n-propanolatomethyl, butanolato-1, tri(diocetyl)pyrophosphate, or KR558;

(iii) Titanium IV, [2-propenolato-1]methyl, propanolatomethyl, butanolato-1, tri(diocetyl)phosphate;

(14) Polyfunctional asridine amides with isophthalic, trimesic (MICA or butylene imine trimesanide), isoycynic, or trimethyladipic backbone structures and 2-methyl or 2-ethyl substitutions on the asridine ring and its polymers;

(15) Superfine iron oxide (Fe$_2$O$_3$) hematite with a specific surface area more than 250 m$^2$/g and an average particle size of 0.003 (micron) or less (CAS 1309-37-1);

(16) TEPAN (tetrabutylenepentaaminoacrylonitrile) (CAS 68412-45-3); cyanoethylated polyanimes and their salts;

(17) TEPLANOL (Tetrabutylamponetanaminoacrylonitrileycyclid) (CAS 110445-33-3); cyanoethylated polyanimes adducted with glycidol and their salts;

(18) TFP (triphyl bismuth) (CAS 603-32-8);

(19) PCDE (Polycyanofluororlmetheneoxide);

(20) BNO (Butadieninetrileoxide);

(21) Any other additive not elsewhere identified in this category specifically designed, modified, adapted, or configured (e.g., formulated) for military application.

(g) Precursors, as follows:

(1) BEMO (bischloromethylxetane) (CAS 142173-26-0) (see paragraphs (e)(1) and (2) of this category);

(2) Dinistroetidine-t-buty1 salt (CAS 129755-38-8) (see paragraph (a)(7) of this category);

(3) HBIIW (hexabenzyhexaazaisowurtzitane) (CAS 129763-15-6) (see paragraph (a)(4) of this category);

(4) TAIW (tetraacetylbenzyhexaazaisowurtzitane) (see paragraph (a)(4) of this category);

(5) TAT (1, 3, 5, 7-tetraacetyl-1, 3, 5, 7-tetraaza-cyclooctane) (CAS 41378-98-7) (see paragraph (a)(12) of this category);

(6) Tetraazadecalin (CAS 5609-42-7) (see paragraph (a)(6) of this category);

(7) 1,3,5-trichlorobenzene (CAS 108-76-3) (see paragraph (a)(22) of this category);

(8) 1,2,4-trihydroxybutane (1,2,4-butanetriol) (CAS 9068-00-5) (see paragraph (e)(3) of this category);

(9) Technical data (as defined in §130.10 of this subchapter) and defense services (as defined in §130.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (g) of this category. (See §123.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(i) The following interpretations explain and amplify the terms used in this category and elsewhere in this subchapter.

(1) Category V contains explosives, energetic materials, propellants and pyrotechnics and specially formulated fuels for aircraft, missile and naval applications. Explosives are solid, liquid or gaseous substances or mixtures of substances, which, in their primary, booster or main charges in warheads, demolition or other military applications, are required to detonate.

(2) Paragraph (c)(6)(i)(A) of this category does not control boron and boron carbide enriched with boron-10 (30% or more of total boron-10 content).

(3) The resulting product of the combination of any controlled or non-controlled substance compounded or mixed with any item controlled by this subcategory is also subject to the controls of this category.

NOTE 1: To assist the exporter, an item has been categorized by the most common use. Also, a reference has been provided to the related controlled precursors (e.g., see paragraph (a)(12) of this category). Regardless of where the item has been placed in the category, all exports are subject to the controls of this subchapter.

NOTE 2: Chemical Abstract Service (CAS) registry numbers do not cover all the substances and mixtures controlled by this category. The numbers are provided as examples to assist the government agencies in the license review process and the exporter when completing their license application and export documentation.

CATEGORY VI—VEHICLES OF WAR AND SPECIAL NAVAL EQUIPMENT.

(a) Warships, amphibious warfare vessels, landing craft, mine warfare vessels, patrol vessels and any vessels specifically designed or modified for military purposes. (See §121.15.)

(b) Patrol craft without armor, armament or mounting surfaces for weapons systems more significant than 50 caliber machine guns or equivalent or auxiliary vessels. (See §121.15.)

(c) Turrets and gun mounts, arresting gear, special weapons systems, protective systems, submarine storage batteries, catapults, mine sweeping equipment (including...
mine countermeasures equipment deployed by aircraft and other significant naval systems specifically designed or modified for combatant vessels.

(d) Harbor entrance detection devices (magnetic, pressure, and acoustic) and controls therefor.

*(e) Naval nuclear propulsion plants, their land prototypes, and special facilities for their construction, support, and maintenance. This includes any machinery, device, component, or equipment specifically developed, designed or modified for use in such plants or facilities. (See §123.30)

(f) All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in paragraphs (a) through (e) of this category.

(g) Technical data (as defined in §120.10) and defense services (as defined in §120.9) directly related to the defense articles enumerated in paragraphs (a) through (f) of this category. (See §120.4 for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY VII—TANKS AND MILITARY VEHICLES

*(a) Military type armed or armored vehicles, military railway trains, and vehicles specifically designed or modified to accommodate mountings for arms or other special purpose military equipment or fitted with such items.

(b) Military tanks, combat engineer vehicles, bridge launching vehicles, half-tracks and gun carriers.

(c) Military trucks, trailers, hoists, and skids specifically designed, modified, or equipped to mount or carry weapons of Categories I, II and IV of this section or for carrying and handling the articles in paragraph (a) of Categories III and IV of this section.

(d) Military recovery vehicles.

(e) Amphibious vehicles.

(f) Engines specifically designed or modified for the vehicles in paragraphs (a), (b), and (e) of this category.

(g) All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in this category, including but not limited to military bridges and deep water fording kites.

(h) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (g) of this category. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(i) The following explains and amplifies the terms used in this category and elsewhere in this subchapter.

(1) An amphibious vehicle in paragraph (e) of this category is an automotive vehicle or chassis which embodies all-wheel drive, is equipped to meet special military requirements, and which has sealed electrical system or adaptation features for deep water fording.

(2) The articles in this category include any end item, component, accessory, attachment part, firmware, software or system that has been designed or manufactured using technical data and defense service controlled by this category.

CATEGORY VIII—AIRCRAFT AND ASSOCIATED EQUIPMENT

*(a) Aircraft, including but not limited to helicopters, non-explosive balloons, drones, and lighter-than-air craft, which are specifically designed, modified, or equipped for military purposes. This includes but is not limited to the following military purposes: Gunner, bombing, rocket or missile launching, electronic and other surveillance, reconnaissance, refueling, aerial mapping, military liaison, cargo carrying or dropping, personnel dropping, airborne warning and control, and military training. (See §121.3.)

(b) Military aircraft engines, except reciprocating engines, specifically designed or modified for the aircraft in paragraph (a) of this category.

(c) Cartridge-actuated devices utilized in emergency escape of personnel and airborne equipment (including but not limited to airborne refueling equipment) specifically designed or modified for use with the aircraft and engines of the types in paragraphs (a) and (b) of this category.

(d) Launching and recovery equipment for the articles in paragraph (a) of this category, if the equipment is specifically designed or modified for military use. Fixed land-based arresting gear is not included in this category.

*(e) Inertial navigation systems, aided or hybrid inertial navigation systems, Inertial Measurement Units (IMUs), and Attitude and Heading Reference Systems (AHRS) specifically designed, modified, or configured for military use and all specifically designed components, parts and accessories. For other inertial reference systems and related components refer to Category XII(d).

NOTE: (1) Category XII(d) or Category VIII(e) does not include quartz rate sensors if such items:

(i) Are integrated into and included as an integral part of a commercial primary or commercial standby instrument system for use on civil aircraft prior to export or exported solely for integration into such a commercial primary or standby instrument system, and

473
§ 121.1

(ii) When the exporter has been informed in writing by the Department of State that a specific quartz rate sensor integrated into a commercial primary or standby instrument system has been determined to be subject to the licensing jurisdiction of the Department of Commerce in accordance with this section.

(2) For controls in these circumstances, see the Commerce Control List. In all other circumstances, quarts rate sensors remain under the licensing jurisdiction of the Department of State under Category XII(d) or Category VIII(e) of the U.S. Munitions List and subject to the controls of the ITAR.

(5) Developmental aircraft, engines, and components thereof specifically designed, modified, or equipped for military uses or purposes, or developed principally with U.S. Department of Defense funding, excluding such aircraft, engines, and components subject to the jurisdiction of the Department of Commerce.

NOTE: Developmental aircraft, engines, and components thereof, having no commercial application at the time of this amendment and which have been specifically designed for military uses or purposes, or developed principally with U.S. Department of Defense funding, will be considered eligible for a CCL license when actually applied to a commercial aircraft or commercial aircraft engine program. Exporters may seek to establish commercial application either on a case-by-case basis through submission of documentation demonstrating application to a commercial program in requesting an export license application from Commerce in respect of a specific export or, in the case of use for broad categories of aircraft, engines, or components, a commodity jurisdiction from State.

(g) Ground effect machines (GEMS) specifically designed or modified for military uses, including but not limited to surface effect machines and other air cushion vehicles, and all components, parts, and accessories, attachments, and associated equipment specifically designed or modified for use with such machines.

(h) Components, parts, accessories, attachments, and associated equipment (including ground support equipment) specifically designed or modified for the articles in paragraphs (a) through (e) of this category, excluding aircraft tires and propellers used with reciprocating engines.

(i) Technical data (as defined in §129.10) and defense services (as defined in §129.9) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category (see §125.4 for exemptions), except for hot section technical data associated with commercial aircraft engines. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

Category IX—Military Training Equipment and Training

(a) Training equipment specifically designed, modified, configured or adapted for military purposes, including but not limited to weapons system trainers, radar trainers, gunnery training devices, antisubmarine warfare trainers, target equipment, armament training units, pilot-less aircraft trainers, navigation trainers and human-rated centrifuges.

(b) Simulation devices for the items covered by this subchapter.

(c) Tooling and equipment specifically designed or modified for the production of articles controlled by this category.

(d) Components, parts, accessories, attachments, and associated equipment specifically designed, modified, configured, or adapted for the articles in paragraphs (a), (b) and (c) of this category.

(e) Technical data (as defined in §129.10 of this subchapter) and defense services (as defined in §129.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category.

(f) The following interpretations explain and amplify terms used in this category and elsewhere in this subchapter:

(1) The weapons systems trainers in paragraph (a) of this category include individual crew stations and system specific trainers;

(2) The articles in this category include any end item, components, accessory, parts, firmware, software or system that has been designed or manufactured using technical data and defense services controlled by this category;

(3) The defense services and related technical data in paragraph (f) of this category include software and associated databases that can be used to simulate training, battle management, test scenario models, weapon effects. In any instance when military training transferred to a foreign person does not use articles controlled by the U.S. Munitions List, the training nevertheless be a defense service that requires authorization in accordance with subchapter. See e.g., §129.9 and §129.10 subchapter for additional information on military training.

Category X—Protective Personal Equipment and Systems

(a) Protective personnel equipment specifically designed, developed, configured, modified, or equipped for military applications. This includes but is not limited to:

(1) Body armor;

(2) Clothing to protect against detection by radar, infrared.
sensors at wavelengths greater than 900 nanometers, and the specially treated or formulated dyes, coatings, and fabrics used in its design, manufacture, and production;
(3) Anti-Gravity suites (G-suites);
(4) Pressure suits capable of operating at altitudes above 55,000 feet sea level;
(5) Atmosphere diving suits designed, developed, modified, configured, or adapted for use in rescue operations involving submarines controlled by this subchapter;
(6) Helmets specially designed, developed, modified, configured, or adapted to be compatible with military communication hardware or optical sights or slewing devices;
(7) Goggles, glasses, or visors designed to protect against lasers or thermal flashes discharged by an article subject to this subchapter.
(b) Permanent or transportable shelters specifically designed and modified to protect against the effect of articles covered by this subchapter as follows:
(1) Ballistic shock or impact;
(2) Nuclear, biological, or chemical contamination.
(c) Tooling and equipment specifically designed or modified for the production of articles controlled by this category.
(d) Components, parts, accessories, attachments, and associated equipment specifically designed, modified, configured, or adapted for use with the articles in paragraphs (a) through (c) of this category.
(e) Technical data (as defined in §120.19 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category.
(f) The following interpretations explain and amplify the terms used in this category and throughout this subchapter:

1. The body armor covered by this category does not include Type 2, Type 2A, or Type 3A as defined by the National Institute of Justice Classification.
2. The articles in this category include any end item, component, accessory, attachment, part, firmware, software or system that has been designed or manufactured using technical data and defense services controlled by this category.
3. Pressure suits in paragraph (a) (4) of this category include full and partial suits used to simulate normal atmospheric pressure conditions at high altitude.

CATEGORY XI—MILITARY ELECTRONICS
(a) Electronic equipment not included in Category XI of the U.S. Munitions List which is specifically designed, modified or configured for military application. This equipment includes but is not limited to:
- (1) Underwater sound equipment to include active and passive detection, identification, tracking, and weapons control equipment.
- (2) Underwater acoustic active and passive countermeasures and counter-countermeasures.
- (3) Radar systems, with capabilities such as:
  - (i) Search,
  - (ii) Acquisition,
  - (iii) Tracking,
  - (iv) Moving target indication,
  - (v) Imaging radar systems.
- (4) Electronic combat equipment, such as:
  - (i) Active and passive countermeasures,
  - (ii) Active and passive counter-countermeasures,
  - (iii) Radios (including transceivers) specifically designed or modified to interfere with other communication devices or transmissions.
- (5) Command, control and communications systems to include radio (transceivers), navigation, and identification equipment.
- (6) Computers specifically designed or developed for military application and any computer specifically modified for use with any defense article in any category of the U.S. Munitions List.
- (7) Any experimental or developmental electronic equipment specifically designed or modified for military application or specifically designed or modified for use with a military system.

(b) Electronic systems or equipment specifically designed, modified, or configured for intelligence, security, or military purposes for use in search, reconnaissance, collection, monitoring, direction-finding, display, analysis and production of information from the electromagnetic spectrum and electronic systems or equipment designed or modified to counteract electronic surveillance or monitoring. A system meeting this definition is controlled under this subchapter even in instances where any individual pieces of equipment constituting the system may be subject to the controls of another U.S. Government agency. Such systems or equipment described above include, but are not limited to, those:
- (1) Designed or modified to use cryptographic techniques to generate the spreading code for spread spectrum or hopping code for frequency agility. This does not include fixed code techniques for spread spectrum.
- (2) Designed or modified using burst techniques (e.g., time compression techniques) for intelligence, security or military purposes.
- (3) Designed or modified for the purpose of information security to suppress the compromising emanations of information-bearing signals. This covers TEMPEST suppression.
§ 121.1

technology and equipment meeting or designed to meet government TEMPEST standards. This definition is not intended to include equipment designed to meet Federal Communications Commission (FCC) commercial electromagnetic interference standards or equipment designed for health and safety.

(c) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for use in paragraphs (a) and (b) of this category, except for such items as are in normal commercial use.

(d) Technical data (as defined in §120.10) and defense services (as defined in §120.9) directly related to the defense articles enumerated in paragraphs (a) through (c) of this category. (See §125.4 for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XII—FIRE CONTROL, RANGE FINDER, OPTICAL AND GUIDANCE AND CONTROL EQUIPMENT

(a) Fire control systems; gun and missile tracking and guidance systems; gun range, position, height finders, spotting instruments and laying equipment; aiming devices (electronic, optic, and acoustic); bomb sights, bombing computers, military television sighting and viewing units, and periscopes for the articles of this section.

(b) Lasers specifically designed, modified or configured for military application including those used in military communications devices, target designators and range finders, target detection systems, and directed energy weapons.

(c) Infrared focal plane array detectors specifically designed, modified, or configured for military use; image intensification and other night sighting equipment or systems specifically designed, modified or configured for military use; second generation and above military image intensification tubes (defined below) specifically designed, developed, modified, or configured for military application. Military second and third generation image intensification tubes and military infrared focal plane arrays identified in this subparagraph are licensed by the Department of Commerce (BCCN 6A002A and 6A003A) when part of a commercial system (i.e., those systems originally designed for commercial use). This does not include any military system comprised of non-military specification components. Replacement tubes or focal plane arrays identified in this paragraph being exported for commercial systems are subject to the controls of the ITAR.

(d) Inertial platforms and sensors for weapons or weapon systems; guidance, control and stabilization systems except for those systems covered in Category VIII; astro-compasses and star trackers and military accelerometers and gyroscopes. For aircraft inertial reference systems and related components refer to Category VIII.

(e) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in paragraphs (a) through (d) of this category, except for such items as are in normal commercial use.

(f) Technical data (as defined in §120.10) and defense services (as defined in §120.9) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category. (See §125.4 for exemptions.) Technical data directly related to the manufacture and production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XIII—AUXILIARY MILITARY EQUIPMENT

(a) Cameras and specialized processing equipment therefor, photointerpretation, stereoscopic plotting, and photogrammetry equipment which are specifically designed, developed, modified, adapted, or configured for military purposes, and components specifically designed or modified therefor;

(b) Military Information Security Assurance Systems and equipment, cryptographic devices, software, and components specifically developed, modified, adapted, or configured for military applications (including command, control and intelligence applications). This includes: (1) Military cryptographic (including key management) systems, equipment assemblies, modules, integrated circuits, components or software with the capability of maintaining secrecy or confidentiality of information or information systems, including equipment and software for tracking, telemetry and control (TT&C) encryption and decryption;

(2) Military cryptographic (including key management) systems, equipment, assemblies, modules, integrated circuits, components or software which have the capability of generating spreading or hopping codes for spread spectrum systems or equipment;

(3) Military cryptanalytic systems, equipment, assemblies, modules, integrated circuits, components or software;

(4) Military systems, equipment, assemblies, modules, integrated circuits, components or software providing certified or certifiable multi-level security or user isolation exceeding Evaluation Assurance Level (EAL)
5 of the Security Assurance Evaluation Criteria and software to certify such systems, equipment or software;

(5) Ancillary equipment specifically designed, developed, modified, adapted, or configured for the articles in paragraphs (b)(1), (2), (3), and (4) of this category.

(o) Self-contained diving and underwater breathing apparatus as follows:

1. Closed and semi-closed (rebreathing) apparatus;

(2) Specially designed components and parts for use in the conversion of open-circuit apparatus to military use;

(3) Articles exclusively designed for military use with self-contained diving and underwater swimming apparatus.

(d) Carbon/carbon billets and preforms not elsewhere controlled by this subchapter (e.g., Category IV) which are reinforced with continuous unidirectional tows, tapes, or woven cloths in three or more dimensional planes (e.g., 3D, 4D) specifically designed, developed, modified, configured or adapted for defense articles.

(e) Armor (e.g., organic, ceramic, metallic), and reactive armor and components, parts and accessories not elsewhere controlled by this subchapter which have been specifically designed, developed, modified, configured or adapted for a military application.

(f) Structural materials, including carbon/carbon and metal matrix composites, plate, forgings, castings, welding consumables and rolled and extruded shapes that have been specifically designed, developed, configured, modified or adapted for defense articles.

(g) Concealment and deception equipment specifically designed, developed, modified, configured or adapted for military application, including but not limited to limited special paints, decoys, smoke or obscuration equipment simulators and components, parts and accessories specifically designed, developed, modified, configured or adapted therefor.

(b) Energy conversion devices for producing electrical energy from nuclear, thermal, or solar energy, or from chemical reaction that are specifically designed, developed, modified or adapted for military application.

(i) Metal embrittling agents.

1. (f) Hardware and equipment, which has been specifically designed or modified for military applications, that is associated with the measurement or modification of system signatures for detection of defense articles. This includes but is not limited to signature measurement equipment; reduction techniques and codes; signature materials and treatments; and signature control design methodology.

(k) Tooling and equipment specifically designed or modified for the production of articles controlled by this category.

(1) Technical data (as defined in §120.10 of this subchapter), and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (k) of this category. (See also, §123.20 of this subchapter.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designed SME.

(m) The following interpretations explain and amplify terms used in this category and elsewhere in this subchapter:

(1) Paragraph (d) of this category does not control carbon/carbon billets and preforms where reinforcement in the third dimension is limited to interlocking of adjacent layers only, and carbon/carbon 3D, 4D, etc. end items that have not been specifically designed or modified for military applications (e.g., brakes for commercial aircraft or high speed trains);

(3) Metal embrittling agents in paragraph (i) of this category are non-lethal weapon substances that alter the crystal structure of metals within a short time span. Metal embrittling agents severely weaken metals by chemically changing their molecular structure. These agents are compounded in various substances to include adhesives, liquids, aerosols, foams and lubricants.

CATEGORY XIV—TOXICOLOGICAL AGENTS, INCLUDING CHEMICAL AGENTS, BIOLOGICAL AGENTS, AND ASSOCIATED EQUIPMENT

(a) Chemical agents, to include:

(1) Nerve agents:

(i) O-Alkyli (equal to or less than C_8, including cycloalkyl) alkyl (Methyl, Ethyl, n-Propyl or Isopropylphosphonofluoridates, such as: Sarin (GB); O-Isopropyl methylphosphonofluoridate (CAS 107-44-8) (CWC Schedule 1A); and Soman (GD); O-Phenyl methylphosphonofluoridate (CAS 96-64-0) (CWC Schedule 1A);

(ii) O-Alkyli (equal to or less than C_8, including cycloalkyl) N,N-dialkyli (Methyl, Ethyl, n-Propyl or Isopropylphosphoramidocyanides, such as: Tabun (GA); O-Ethyl N, N-dimethylphosphoramidocyanide (CAS 77-81-5) (CWC Schedule 1A);

(iii) O-Alkyli (H or equal to or less than C_8, including cycloalkyl) S-2-dialkyli (Methyl, Ethyl, n-Propyl or Isopropylphosphonothiolates and corresponding alkylated and protonated salts, such as: VX: O-Ethyl S-diisopropylaminoethyl methyl phosphonothiolate (CAS 50782-69-9) (CWC Schedule 1A);

(2) Amion: O-Ethyl S-[3(diethylamino)ethyl] phosphorothiolate and corresponding alkylated or protonated salts (CAS 78-53-5) (CWC Schedule 2A);
§ 121.1

(3) Vescicant agents:
   (i) Sulfur mustards, such as: 2-Chloroethylchloromethylsulfide (CAS 2625-76-5) (CWC Schedule 1A); Bis(2-chloroethyl)sulfide (CAS 556-63-2) (CWC Schedule 1A); Bis(2-chloroethylthio)methane (CAS 68339-15-6) (CWC Schedule 1A); 1,2-bis(2-chloroethylthio)ethane (CAS 5563-36-8) (CWC Schedule 1A); 1,3-bis(2-chloroethylthio)-n-propane (CAS 65905-16-2) (CWC Schedule 1A); 1,4-bis(2-chloroethylthio)-n-butane (CWC Schedule 1A); 1,5-bis(2-chloroethylthio)-n-pentane (CWC Schedule 1A); Bis(2-chloroethylthiomethyl)ether (CWC Schedule 1A); Bis(2-chloroethylcarbomethylthio)methane (CAS 65918-89-9) (CWC Schedule 1A);
   (ii) Lewisites, such as: 2-chlorovinylchloroarsine (CAS 541-25-3) (CWC Schedule 1A); Tris(2-chlorovinyl)arsine (CAS 60534-70-1) (CWC Schedule 1A); Bis(2-chlorovinyl)chloroarsine (CAS 40339-68-9) (CWC Schedule 1A);
   (iii) Nitrogen mustards, such as: HN1: bis(2-chloroethyl) ethyleneimine (CAS 538-07-5) (CWC Schedule 1A); HN2: bis(2-chloroethyl)methyleneimine (CAS 51-75-2) (CWC Schedule 1A); HN3: tris(2-chloroethyl)amine (CAS 555-77-1) (CWC Schedule 1A);
   (iv) Ethyldichloroarsine (ED);
   (v) Methyldichloroarsine (MDA);
   (iv) Incapacitating agents, such as:
      (I) 3-Quinuclidinyl benzilate (BZ) (CAS 6581-06-2) (CWC Schedule 2A);
      (ii) Diphenylchloroarsine (DA) (CAS 712-48-1);
   (iii) Diphenylcyanarsine (DC);
   * (b) Biological agents and biologically derived substances specifically developed, configured, adapted, or modified for the purpose of increasing their capability to produce casualties in humans or livestock, degrade equipment or damage crops.
   * (c) Chemical agent binary precursors and key precursors, as follows:
      (1) Alkyl (Methyl, Ethyl, n-Propyl or Isopropyl) phosphoryl difluorides, such as: DF; Methyl Phosphonyldifluoride (CAS 676-89-3) (CWC Schedule 1B); Methylphosphonyldifluoride;
      (2) O-Alkyl (H or equal to or less than C4, including cycloalkyl) O-2-dialkyl (methyl, ethyl, n-Propyl or isopropyl)phosphonite and corresponding alkylated and protonated salts, such as: QL; O-Ethyl-3-di-isopropylaminoethoxy methylphosphonite (CAS 57666-11-8) (CWC Schedule 1D);
      (3) Chlorosarin: O-Isopropyl methylphosphonochloridate (CAS 146-76-7) (CWC Schedule 1B);
      (4) Chlorosoman: O-Pinakolyl methylphosphonochloridate (CAS 7040-57-5) (CWC Schedule 1B);
      (5) DC: Methylphosphonyldichloride (CAS 676-97-1) (CWC Schedule 2B); Methylphosphonyldichloride;
      (d) Tear gases and riot control agents including:
         (I) Adamsite (Diphenylamine chloroarsine or DM) (CAS 578-94-9);
         (2) CA (Bromobenzyl cyanide) (CAS 5798-79-8);
         (3) CN (Phenyliacetyl chloride or w-Chloroacetonaphone) (CAS 552-27-4);
         (4) CR (Dibenz-(b,1)-1,4-oxazepine) (CAS 297-07-8);
         (5) CS (o-Chlorobenzylidenemalononitrile or o-Chlorobenzylmalononitrilure (CAS 2698-41-7); (6) Dibromomethyl ether (CAS 4497-28-4);
         (7) Dichloromethyl ether (CICI) (CAS 542-88-1);
         (8) Ethyldimethrurate (CAS 683-43-2);
         (9) Bromo acetone;
         (10) Bromo methylketone;
         (11) Iodo acetone;
         (12) Phenylicarbamyl chloride;
         (15) Ethyl iodosacetate;
         (e) Defoliants, as follows:
            (1) Agent Orange (2,4,5-Trichlorophenoxyacetic acid mixed with 2,4-dichlorophenoxyacetic acid);
            (2) LNF (Butyl 2-chloro-4-fluorophenoxyacetate)
   * (f) Equipment and its components, parts, accessories, and attachments specifically designed or modified for military operations and compatibility with military equipment as follows:
      (1) The dissemination, dispersion or testing of the chemical agents, biological agents, tear gases and riot control agents, and defoliants listed in paragraphs (a), (b), (d), and (e), respectively, of this category;
      (2) The detection, identification, warning or monitoring of the chemical agents and biological agents listed in paragraph (a) and (b) of this category;
      (3) Sample collection and processing of the chemical agents and biological agents listed in paragraph (a) and (b) of this category;
      (4) Individual protection against the chemical and biological agents listed in paragraphs (a) and (b) of this category;
      (5) Collective protection against the chemical agents and biological agents listed in paragraph (a) and (b) of this category.
      (g) Antibodies, polynucleotides, biopolymers or bioconjugates specifically designed or modified for use with articles controlled in paragraph (f) of this category.
      (h) Medical countermeasures, to include pre- and post-treatments, vaccines, antidotes and medical diagnostics, specifically designed or modified for use with the chemical agents listed in paragraph (a) of this category and vaccines with the sole purpose of...
Department of State

§ 121.1

protecting against biological agents identified in paragraph (b) of this category. Examples include: barrier creams specifically designed to be applied to skin and personal equipment to protect against vesicant agents controlled in paragraph (a) of this category; atropine anto injectors specifically designed to counter nerve agent poisoning.

(i) Modeling or simulation tools specifically designed or modified for chemical or biological weapons design, development or employment. The concept of modeling and simulation includes software covered by paragraph (m) of this category specifically designed to reveal susceptibility or vulnerability to biological agents or materials listed in paragraph (b) of this category.

(ii) Test facilities specifically designed or modified for the certification and qualification of articles controlled in paragraph (f) of this category.

(iii) Equipment, components, parts, accessories, and attachments, exclusive of incinerators (including those which have specially designed waste supply systems and special handling facilities), specifically designed or modified for destruction of the chemical agents in paragraph (a) or the biological agents in paragraph (b) of this category. This destruction equipment includes facilities specifically designed or modified for destruction operations.

(iv) Tooling and equipment specifically designed or modified for the production of articles controlled by paragraph (f) of this category.

(v) Technical data (as defined in § 120.10 of this subchapter) and defense services (as defined in § 120.9 of this subchapter) related to the defense articles enumerated in paragraphs (a) through (l) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this Category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

(vi) The following interpretations explain and amplify the terms used in this category and elsewhere in this subchapter.

(a) A chemical agent in category XIV(a) is a substance having military application, which by its ordinary and direct chemical action, produces a powerful physiological effect.

(b) The biological agents or biologically derived substances in paragraph (b) of this category are those agents and substances capable of producing casualties in humans or livestock, degrading equipment or damaging crops and which have been modified for the specific purpose of increasing such effects. Examples of such modifications include increasing resistance to UV radiation or improving dissemination characteristics. This does not include modifications made only for civil applications (e.g., medical or environmental use).

(c) The destruction equipment controlled by this category related to biological agents in paragraph (b) is that equipment specifically designed to destroy only the agents identified in paragraph (b) of this category.

(d) The individual protection against the chemical and biological agents controlled by this category includes military protective clothing and masks, but not those items designed for domestic preparedness (e.g., civil defense). Domestic preparedness devices for individual protection that integrate components and parts identified in this subparagraph are licensed by the Department of Commerce when such components are:

(A) Integral to the device;

(B) inseparable from the device; and,

(C) incapable of replacement without compromising the effectiveness of the device.

(ii) Components and parts identified in this subparagraph exported for integration into domestic preparedness devices for individual protection are subject to the controls of the ITAR.

(v) Technical data and defense services in paragraph (i) include libraries, databases and algorithms specifically designed or modified for use with articles controlled in paragraph (f) of this category.

(vi) The tooling and equipment covered by paragraph (i) of this category includes molds used to produce protective masks, overboots, and gloves controlled by paragraph (f) and leak detection equipment specifically designed to test filters controlled by paragraph (f) of this category.

(vii) The resulting product of the combination of any controlled or non-controlled substance compounded or mixed with any item controlled by this subchapter is also subject to the controls of this category.

NOTE 1: This Category does not control formulations containing 1% or less CN or CS or individually packaged tear gases or riot control agents for personal self-defense purposes.

NOTE 2: Categories XIV(a) and (d) do not include the following:

(1) Cyanogen chloride;

(2) Hydrocyanic acid;

(3) Chlorine;

(4) Carbonyl chloride (Phosgene);

(5) Ethyl bromoacetate;

(6) Xylyl bromide;

(7) Benzyl bromide;

(8) Benzyl iodide;

(9) Chloroacetone;

(10) Chloropicrin (trichloronitromethane);

(11) Fluorine;

(12) Liquid pepper.

Note 3: Chemical Abstract Service (CAS) registry numbers do not cover all the substances and mixtures controlled by this category. The numbers are provided as examples

479
§ 121.1

to assist the government agencies in the li-

cense review process and the exporter when-

completing their license application and ex-

port documentation.

**NOTES:** With respect to U.S. obligations

under the Chemical Weapons Convention
(CWC), refer to Chemical Weapons Conven-

tion Regulations (CWC R) (15 CFR parts 710

through 720). As appropriate, the CWC sche-

dule is provided to assist the exporter.

**CATEGORY XV—SPACECRAFT SYSTEMS AND

ASSOCIATED EQUIPMENT**

*(a) Spacecraft, including communications

satellites, remote sensing satellites, sci-

tific satellites, research satellites, naviga-

tion satellites, experimental and multi-mis-

sion satellites.

*NOTE TO PARAGRAPH (a): Commercial com-

munications satellites, scientific satellites, re-

search satellites and experimental satel-

lites are designated as SME only when the

equipment is intended for use by the armed

forces of any foreign country.

(b) Ground control stations for telemetry, 

tracking and control of spacecraft or satel-

lites, or employing any of the cryp-

tographic items controlled under category

XIII of this subchapter.

(c) Global Positioning System (GPS) re-

ceiving equipment specifically designed, 

modified or configured for military use; or

GPS receiving equipment with any of the 

following characteristics:

(1) Designed for encryption or decryption 

(e.g., Y-Code) of GPS precise positioning

service (PSPS) signals;

(2) Designed for producing navigation re-

sults above 60,000 feet altitude and at 1,000 

knots velocity or greater;

(3) Specifically designed or modified for 

use with a null steering antenna or including 

a null steering antenna designed to reduce or 

avoid jamming signals;

(4) Designed or modified for use with un-

manned air vehicle systems capable of deliv-

ering at least a 500 lb payload to a range of 

at least 300 km.

**NOTE:** GPS receivers designed or modified 

for use with military unmanned air vehicle 

systems with less capability are considered 

to be specifically designed, modified or con-

figured for military use and therefore cov-

ered under this paragraph (d) (4).

Any GPS equipment not meeting this defi-

nition is subject to the jurisdiction of the 

Department of Commerce (DOC). Manufac-

turers or exporters of equipment under DOC 

jurisdiction are advised that the U.S. Gov-

ernment does not assure the availability of 

the GPS P-Code for civil navigation. It is 

the policy of the Department of Defense (DOD) 

that GPS receivers using P-Code without 

qualification as to whether or not those re-

ceivers were designed or modified to use Y-

Code will be presumed to be Y-Code capable

and covered under this paragraph. The DOD 
policy further requires that a notice be at-

tached to all P-Code receivers presented for 

export. The notice must state the following:

*ADVISORY NOTICE:* This receiver uses the 

GPS P-Code signal, which by U.S. policy, 

may be switched off without notice.

(5) Radiation-hardened microelectronic 

circuits that meet or exceed all five of the 

following characteristics:

(1) A total dose of 5 x 10^6 Rads (Si);
(2) A dose rate upset threshold of 5 x 10^6 

Rads (Si)/sec;
(3) A neutron dose of 1 x 10^4 n/cm^2 (1 Mev 

equivalent);
(4) A single event upset rate of 1 x 10^-10 

error-bit-day or less, for the CREM/SBE geo-

synchronous orbit, Solar Minimum Environ-

ment;
(5) Single event latch-up free and having a 

dose rate latch-up threshold of 5 x 10^6 Rads 

(Si).

(e) All specifically designed or modified 

systems or subsystems, components, parts, 

accessories, attachments, and associated 

equipment for the articles in this category, 

including the articles identified in section 

1516 of Public Law 105-261: satellite fuel, 

ground support equipment, test equipment, 

payload adapter or interface hardware, 

replacement parts, and non-embedded solid 

propellant orbit transfer engines (see also 

Categories IV and V in this section).

**NOTE:** This coverage by the U.S. Munitions 

List does not include the following unless 

specifically designed or modified for military 

application (see §120.3 of this subchapter): 

(For controls on these items see the Export 

Administration Regulations, Commerce Con-

trol List (15 CFR Parts 730 through 799).)

(1) Space qualified travelling wave tubes 

(also known as helix tubes or TWTs), micro-

wave solid state amplifiers, microwave as-

semblies, and travelling wave tube amplifi-

ers operating at frequencies equal to or less 

than 3GHz.

(2) Space qualified photovoltaic arrays 

having silicon cells or having single, dual, 

triple junction solar cells that have gallium 

arsenide as one of the junctions.

(3) Space qualified tape recorders.

(4) Atomic frequency standards that are 

not space qualified.

(5) Space qualified data recorders.

(6) Space qualified telecommunications 

systems, equipment and components not de-

signed or modified for satellite uses.

(7) Technology required for the develop-

ment or production of telecommunications 

equipment specifically designed for non-sat-

eellite uses.

(8) Space qualified focal plane arrays hav-

ing more than 2046 elements per array and 

having a peak response in the wavelength 

range exceeding 300 nm but not exceeding 

900 nm.
(8) Space qualified laser radar or Light Detection and Ranging (LIDAR) equipment.

(9) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the articles enumerated in paragraphs (a) through (e) of this category, as well as detailed design, development, manufacturing or production data for all spacecraft and specifically designed or modified components for all spacecraft systems. This paragraph includes all technical data, without exception, for all launch support activities (e.g., technical data provided to the launch provider on form, fit, function, mass, electrical, navigational, environmental, telemetry, safety, facility, launch pad, access, and launch parameters, as well as interfaces for mating and parameters for launch.) (See §124.1 for the requirements for technical assistance agreements before defense services may be furnished even when all the information relied upon by the U.S. person in performing the defense service is in the public domain or is otherwise exempt from the licensing requirements of this subchapter.) Technical data directly related to the manufacture or production of any article enumerated elsewhere in this category that is designated as Significant Military Equipment (SME) shall itself be designated SME. Further, technical data directly related to the manufacture or production of all spacecraft, notwithstanding the nature of the intended end use (e.g., even where the hardware is not SME), is designated SME.

NOTE TO PARAGRAPH (Q): The special export controls contained in §124.15 of this subchapter are always required before a U.S. person may participate in a launch failure investigation or analysis and before the export of any article or defense service in this category for launch, or by nationals of a country that is not a member of the North Atlantic Treaty Organization or a major non-NATO ally of the United States. Such special export controls also may be imposed with respect to any destination as deemed appropriate in furtherance of the security and foreign policy of the United States.

CATEGORY XVI—NUCLEAR WEAPONS, DESIGN AND TESTING RELATED ITEMS

*(a) Any article, material, equipment, or device which is specifically designed or modified for use in the design, development, or fabrication of nuclear weapons or nuclear explosive devices. (See §123.30 of this subchapter and Department of Commerce Export Administration Regulations, 15 CFR §742.3 and 744.2.)

*(b) Any article, material, equipment, or device which is specifically designed or modified for use in the devising, carrying out, or evaluating of nuclear weapons tests or any other nuclear explosions (including for modeling or simulating the employment of nuclear weapons or the integrated operational use of nuclear weapons), except such items as are in normal commercial use for other purposes.

*(c) Nuclear radiation detection and measurement devices specifically designed or modified for military applications.

*(d) All specifically designed or modified components and parts, accessories, attachments, and associated equipment for the articles in this category.

*(e) Technical data (as defined in §120.10 of this subchapter), and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category. (See also, §123.20 of this subchapter.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY XVII—CLASSIFIED ARTICLES, TECHNICAL DATA AND DEFENSE SERVICES NOT OTHERWISE ENUMERATED

(a) All articles, technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) related thereto which are classified in the interests of national security and which are not otherwise enumerated in the U.S. Munitions List.

CATEGORY XVIII—DIRECTED ENERGY WEAPONS

*(a) Directed energy weapon systems specifically designed or modified for military applications (e.g., destruction, degradation or rendering mission-abort of a target). These include, but are not limited to:

(1) Laser systems, including continuous wave or pulsed laser systems, specifically designed or modified to cause blindness;

(2) Lasers of sufficient continuous wave or pulsed power to effect destruction similar to the manner of conventional ammunition;

(3) Particle beam systems;

(4) Particle accelerators that project a charged or neutral particle beam with destructive power;

(5) High power radio-frequency (RF) systems;

(6) High pulsed power or high average power radio frequency beam transmitters that produce fields sufficiently intense to disable electronic circuitry at distant targets;

(7) Prime power generation, energy storage, switching, power conditioning, thermal management or fuel-handling equipment;

(8) Target acquisition or tracking systems;

(9) Systems capable of assessing target damage, destruction, or mission-abort;
§ 121.2

(10) Beam-handling, propagation or pointing equipment;
(11) Equipment with rapid beam slew capability for rapid multiple target operations;
(12) Negative ion beam fanning equipment; and,
(13) Equipment for controlling and slew ing a high-energy ion beam.

(b) Equipment specifically designed or modified for the detection or identification of, or defense against, articles controlled in paragraph (a) of this category.

(c) Tooling and equipment specifically designed or modified for the production of defense articles controlled by this category.

(d) Test and evaluation equipment and test models specifically designed or modified for the defense articles controlled by this category. This includes, but is not limited to, diagnostic instrumentation and physical test models.

(e) Components, parts, accessories, attachments and associated equipment specifically designed or modified for the articles in paragraphs (a) through (d) of this category.

(f) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category. Technical data directly related to the manufacture or production of any defense articles enumerated in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

(g) The following interpretations explain and amplify terms used in this category and elsewhere in this subchapter:

(1) The components, parts, accessories, attachments and associated equipment include, but are not limited to adaptive optics and phase conjugators components, space-qualified accelerator components, targets and specifically designed target diagnostics, current injectors for negative hydrogen ion beams, and space-qualified foils for neutralizing negative hydrogen isotope beams.

(2) The particle beam systems in paragraph (a)(3) of this category include devices embodying particle beam and electromagnetic pulse technology and associated components and subassemblies (e.g., ion beam current injectors, particle accelerators for neutral or charged particles, beam handling and projection equipment, beam steering, fire control, and pointing equipment, test and diagnostic instruments, and targets) which are specifically designed or modified for directed energy weapon applications.

(3) The articles controlled in this category include any end item, component, accessory, attachment, part, firmware, software or system that has been designed or manufactured using technical data and defense services controlled by this category.

(4) The articles specifically designed or modified for military application controlled in this category include any articles specifically developed, configured, or adapted for military application.

CATegory XIX (Reserved)

CATegory XX—SUBMERSIBLE VESSELS, OCEANOGRAPHIC AND ASSOCIATED EQUIPMENT

(a) Submersible vessels, manned or unmanned, tethered or untethered, designed or modified for military purposes, or powered by nuclear propulsion plants.

(b) Swimmer delivery vehicles designed or modified for military purposes.

(c) Equipment, components, parts, accessories, and attachments specifically designed or modified for any of the articles in paragraphs (a) and (b) of this category.

(d) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (c) of this category. (See §124.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this Category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATegory XXI—MISCeLLANEOUS ARTICLES

(a) Any article not specifically enumerated in the other categories of the U.S. Munitions List which has substantial military applicability and which has been specifically designed, developed, configured, adapted, or modified for military purposes. The decision on whether any article may be included in this category shall be made by the Director, Office of Defense Trade Controls Policy.

(b) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the defense articles enumerated in paragraph (a) of this category.

[58 FR 33297, July 23, 1993]

EDITORIAL NOTE: For Federal Register citations affecting §121.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.
Ex-Tenn. professor guilty of passing military data

By DUNCAN MANSFIELD, Associated Press Writer
Wed Sep 3, 3:20 PM ET

A federal jury convicted a retired University of Tennessee professor Wednesday of passing sensitive information from an Air Force contract to two foreign research assistants from China and Iran.

The case marked the first time the government used the Arms Export Control Act to crack down on the distribution of data, not hardware, to foreigners in a university setting, prosecutors said.

Jurors deliberated about six hours over two days before finding plasma physics expert J. Reece Roth guilty on all counts of conspiracy, fraud and violating the export control act. Roth and his attorney Thomas Dundon of Nashville avoided outside the federal courthouse seeking comment.

The verdict "should serve as a warning to anyone who knowingly discloses restricted U.S. military data to foreign researchers," said Patrick Rowan, acting assistant attorney general for national security.

"The illegal export of such sensitive data represents a very real threat to our national security, particularly when we know that foreign governments are actively seeking this information for their military development," Rowan said in a statement.

Prosecutors said Roth allowed the two graduate students to see sensitive information while they researched a plasma-guidance system for unmanned aircraft.

Roth, 70, testified last week that he didn't believe he broke the law because the research had yet to produce anything.

He said he received only about $6,000 from the contract.

He faces up to 160 years in prison and more than $1.5 million in fines, although lead prosecutor Assistant U.S. Atty. William Mackie said he could get less. "This is not so much a matter of punishment as it is about holding him accountable for his actions," Mackie said.

Sentencing is scheduled for Jan. 7.

The charges involved work performed from 2004 to 2006 on two Air Force contracts by Roth, graduates students China and Sirous Nourgostar of Iran, and university spinoff company Atmospheric Glow Technologies Inc. of Knoxville.

Prosecutors presented several documents suggesting research by Roth's university laboratory and Atmospheric G Technologies was restricted. Roth attempted to keep the sensitive research with an American graduate student an with a foreign student, but eventually the data was shared.

Roth also was accused of taking reports and related studies in his laptop to China during a lecture tour in 2006, an report e-mailed to him there through a Chinese professor's Internet connection.

The university became aware of the problem in 2006 when Roth tried to hire Nourgostar to replace Dai in his lab a graduated, and the university turned him down because of export control concerns.

Federal agents seized materials from Roth's office and took his computer from him at the airport when he returned to Knoxville.

Atmospheric Glow Technologies, now in bankruptcy, recently pleaded guilty to 10 counts of exporting defense-related materials.

materials and Roth protege Daniel Sherman has pleaded guilty to conspiracy. Sentencing in those cases is still pending.

"We believe the vast majority of universities and professors are careful with what they are doing," Mackie said. "By case we are trying to underline that when things go wrong, they need to be addressed."

University of Tennessee spokesman Jay Mayfield said the school is working hard to comply with the export control regulations. "We would have no comment about Dr. Roth."

§734.7

PUBLISHED INFORMATION
AND SOFTWARE

(a) Information is “published” when it becomes generally accessible to the interested public in any form, including:

(1) Publication in periodicals, books, print, electronic, or any other media available for general distribution to any member of the public or to a community of persons interested in the subject matter, such as those in a scientific or engineering discipline, either free or at a price that does not exceed the cost of reproduction and distribution (See Supplement No. 1 to this part, Questions A(1) through A(6));

(2) Ready availability at libraries open to the public or at university libraries (See Supplement No. 1 to this part, Question A(6));

(3) Patents and open (published) patent applications available at any patent office; and

(4) Release at an open conference, meeting, seminar, trade show, or other open gathering.

(i) A conference or gathering is “open” if all technically qualified members of the public are eligible to attend and attendees are permitted to take notes or otherwise make a personal record.
Scope of the Export Administration Regulations

(not necessarily a recording) of the proceedings and presentations.

(ii) All technically qualified members of the public may be considered eligible to attend a conference or other gathering notwithstanding a registration fee reasonably related to cost and reflecting an intention that all interested and technically qualified persons be able to attend, or a limitation on actual attendance, as long as attendees either are the first who have applied or are selected on the basis of relevant scientific or technical competence, experience, or responsibility (See Supplement No. 1 to this part, Questions B(1) through B(6)).

(iii) “Publication” includes submission of papers to domestic or foreign editors or reviewers of journals, or to organizers of open conferences or other open gatherings, with the understanding that the papers will be made publicly available if favorably received. (See Supplement No. 1 to this part, Questions A(1) and A(3)).

(b) Software and information is published when it is available for general distribution either for free or at a price that does not exceed the cost of reproduction and distribution. See Supplement No. 1 to this part, Questions G(1) through G(3).

(c) Notwithstanding paragraphs (a) and (b) of this section, note that encryption software controlled under ECCN 5D002 for “EI” reasons on the Commerce Control List and mass market encryption software with symmetric key length exceeding 64-bits controlled under ECCN 5D992 remain subject to the EAR. See §740.13(e) of the EAR for certain exports and reexports under license exception.

§734.8

INFORMATION RESULTING FROM FUNDAMENTAL RESEARCH

(a) Fundamental research

Paragraphs (b) through (d) of this section and §734.11 of this part provide specific rules that will be used to determine whether research in particular institutional contexts qualifies as “fundamental research”. The intent behind these rules is to identify as “fundamental research” basic and applied research in science and engineering, where the resulting information is ordinarily published and shared broadly within the scientific community. Such research can be distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary reasons or specific national security reasons as defined in §734.11(b) of this part. (See Supplement No. 1 to this part, Question D(8)). Note that the provisions of this section do not apply to encryption software controlled under ECCN 5D002 for “EI” reasons on the Commerce Control List (Supplement No. 1 to part 774 of the EAR) or to mass market encryption software with symmetric key length exceeding 64-bits controlled under ECCN 5D992. See §740.13(e) of the EAR for certain exports and reexports under license exception.

(b) University based research

(1) Research conducted by scientists, engineers, or students at a university normally will be considered fundamental research, as described in paragraphs (b)(2) through (6) of this section. (“University” means any accredited institution of higher education located in the United States.)

(2) Prepublication review by a sponsor of university research solely to insure that the publication would not inadvertently divulge...
proprietary information that the sponsor has furnished to the researchers does not change the status of the research as fundamental research. However, release of information from a corporate sponsor to university researchers where the research results are subject to prepublication review, is subject to the EAR. (See Supplement No. 1 to this part, Questions D(7), D(9), and D(10)).

(3) Prepublication review by a sponsor of university research solely to ensure that publication would not compromise patent rights does not change the status of fundamental research, so long as the review causes no more than a temporary delay in publication of the research results.

(4) The initial transfer of information from an industry sponsor to university researchers is subject to the EAR where the parties have agreed that the sponsor may withhold from publication some or all of the information so provided. (See Supplement No. 1 to this part, Question D(2)).

(5) University based research is not considered “fundamental research” if the university or its researchers accept (at the request, for example, of an industrial sponsor) other restrictions on publication of scientific and technical information resulting from the project or activity. Scientific and technical information resulting from the research will nonetheless qualify as fundamental research once all such restrictions have expired or have been removed. (See Supplement No. 1 to this part, Question D(7) and D(9)).

(6) The provisions of §734.11 of this part will apply if a university or its researchers accept specific national security controls (as defined in §734.11 of this part) on a research project or activity sponsored by the U.S. Government. (See Supplement No. 1 to this part, Questions E(1) and E(2)).

(c) Research based at Federal agencies or FFRDCs

Research conducted by scientists or engineers working for a Federal agency or a Federally Funded Research and Development Center (FFRDC) may be designated as “fundamental research” within any appropriate system devised by the agency or the FFRDC to control the release of information by such scientists and engineers. (See Supplement No. 1 to this part, Questions D(8) and D(11)).

(d) Corporate research

(1) Research conducted by scientists or engineers working for a business entity will be considered “fundamental research” at such time and to the extent that the researchers are free to make scientific and technical information resulting from the research publicly available without restriction or delay based on proprietary concerns or specific national security controls as defined in §734.11(b) of this part.

(2) Prepublication review by the company solely to ensure that the publication would compromise no proprietary information provided by the company to the researchers is not considered to be a proprietary restriction under paragraph (d)(1) of this section. However, paragraph (d)(1) of this section does not authorize the release of information to university researchers where the research results are subject to prepublication review. (See Supplement No. 1 to this part, Questions D(8), D(9), and D(10)).

(3) Prepublication review by the company solely to ensure that publication would compromise no patent rights will not be considered a proprietary restriction for this purpose, so long as the review causes no more than a temporary delay in publication of the research results.

(4) However, the initial transfer of information from a business entity to researchers is not
authorized under the “fundamental research” provision where the parties have agreed that the business entity may withhold from publication some or all of the information so provided.

(e) Research based elsewhere

Research conducted by scientists or engineers who are not working for any of the institutions described in paragraphs (b) through (d) of this section will be treated as corporate research, as described in paragraph (d) of this section. (See Supplement No. 1 to this part, Question D(8)).

§734.9

EDUCATIONAL INFORMATION

“Educational information” referred to in §734.3(b)(3)(iii) of this part is not subject to the EAR if it is released by instruction in catalog courses and associated teaching laboratories of academic institutions. Dissertation research is discussed in §734.8(b) of this part. (Refer to Supplement No. 1 to this part, Question C(1) through C(6)). Note that the provisions of this section do not apply to encryption software controlled under ECCN 5D002 for “EI” reasons on the Commerce Control List or to mass market encryption software with symmetric key length exceeding 64-bits controlled under ECCN 5D992. See §740.13 (c) of the EAR for certain exports and reexports under license exception.

§734.10

PATENT APPLICATIONS

The information referred to in §734.3(b)(3)(iv) of this part is:

(a) Information contained in a patent application prepared wholly from foreign-origin technical data where the application is being sent to the foreign inventor to be executed and returned to the United States for subsequent filing in the U.S. Patent and Trademark Office;

(b) Information contained in a patent application, or an amendment, modification, supplement or division of an application, and authorized for filing in a foreign country in accordance with the regulations of the Patent and Trademark Office, 37 CFR part 5; or

(c) Information contained in a patent application when sent to a foreign country before or within six months after the filing of a United States patent application for the purpose of obtaining the signature of an inventor who was in the United States when the invention was made or who is a co-inventor with a person residing in the United States.

§734.11

GOVERNMENT-SPONSORED RESEARCH COVERED BY CONTRACT CONTROLS

(a) If research is funded by the U.S. Government, and specific national security controls are agreed on to protect information resulting from the research, §734.3(b)(3) of this part will not apply to any export or reexport of such information in violation of such controls. However, any export or reexport of information resulting from the research that is consistent with the specific controls may nonetheless be made under this provision.

(b) Examples of “specific national security controls” include requirements for prepublication

\footnote{Regulations issued by the Patent and Trademark Office in 37 CFR part 5 provide for the export to a foreign country of unclassified technical data in the form of a patent application or an amendment, modification, or supplement thereto or division thereof.}
Scope of the Export Administration Regulations

review by the Government, with right to withhold permission for publication; restrictions on prepublication dissemination of information to non-U.S. citizens or other categories of persons; or restrictions on participation of non-U.S. citizens or other categories of persons in the research. A general reference to one or more export control laws or regulations or a general reminder that the Government retains the right to classify is not a “specific national security control”. (See Supplement No. 1 to this part, Questions E(1) and E(2).)

§734.12

EFFECT ON FOREIGN LAWS AND REGULATIONS

Any person who complies with any of the license or other requirements of the EAR is not relieved of the responsibility of complying with applicable foreign laws and regulations. Conversely, any person who complies with the license or other requirements of a foreign law or regulation is not relieved of the responsibility of complying with U.S. laws and regulations, including the EAR.
This Supplement No. 1 contains explanatory questions and answers relating to technology and software that is subject to the EAR. It is intended to give the public guidance in understanding how BIS interprets this part, but is only illustrative, not comprehensive. In addition, facts or circumstances that differ in any material way from those set forth in the questions or answers will be considered under the applicable provisions of the EAR. Exporters should note that the provisions of this supplement do not apply to encryption software (including source code) transferred from the U.S. Munitions List to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date. See §742.15 of the EAR. This Supplement is divided into nine sections according to topic as follows:

Section A: Publication of technology and exports and reexports of technology that has been or will be published.

Section B: Release of technology at conferences.

Section C: Educational instruction.

Section D: Research, correspondence, and informal scientific exchanges.

Section E: Federal contract controls.

Section F: Commercial consulting.

Section G: Software.

Section H: Availability in a public library.

Section I: Miscellaneous.
Scope of the Export Administration Regulations

Section A: Publication

Question A(1): I plan to publish in a foreign journal a scientific paper describing the results of my research, which is in an area listed in the EAR as requiring a license to all countries except Canada. Do I need a license to send a copy to my publisher abroad?

Answer: No. This export transaction is not subject to the EAR. The EAR do not cover technology that is already publicly available, as well as technology that is made public by the transaction in question (§§734.3 and 734.7 of this part). Your research results would be made public by the planned publication. You would not need a license.

Question A(2): Would the answer differ depending on where I work or where I performed the research?

Answer: No. Of course, the result would be different if your employer or another sponsor of your research imposed restrictions on its publication (§734.8 of this part).

Question A(3): Would I need a license to send the paper to the editors of a foreign journal for review to determine whether it will be accepted for publication?

Answer: No. This export transaction is not subject to the EAR because you are submitting the paper to the editors with the intention that the paper will be published if favorably received (§734.7(a)(4)(iii) of this part).

Question A(4): The research on which I will be reporting in my paper is supported by a grant from the Department of Energy (DOE). The grant requires prepublication clearance by DOE. Does that make any difference under the Export Administration Regulations?

Answer: No, the transaction is not subject to the EAR. But if you publish in violation of any Department of Energy controls you have accepted in the grant, you may be subject to appropriate administrative, civil, or criminal sanctions under other laws.

Question A(5): We provide consulting services on the design, layout, and construction of integrated circuit plants and production lines. A major part of our business is the publication for sale to clients of detailed handbooks and reference manuals on key aspects on the design and manufacturing processes. A typical cost of publishing such a handbook and manual might be $500; the typical sales price is about $15,000. Is the publication and sale of such handbooks or manuals subject to the EAR?

Answer: Yes. The price is above the cost of reproduction and distribution (§734.7(a)(1) of this part). Thus, you would need to obtain a license or qualify for a License Exception before you could export or reexport any of these handbooks or manuals.

Question A(6): My Ph.D. thesis is on technology, listed in the EAR as requiring a license to all destinations except Canada, which has never been published for general distribution. However, the thesis is available at the institution from which I took the degree. Do I need a license to send another copy to a colleague overseas?

Answer: That may depend on where in the institution it is available. If it is not readily available in the university library (e.g., by filing in open stacks with a reference in the catalog), it is not "publicly available" and the export or reexport would be subject to the EAR on that ground. The export or reexport would not be subject to the EAR if your Ph.D. research qualified as "fundamental research" under §734.8 of this part. If not, however, you will
Scope of the Export Administration Regulations

need to obtain a license or qualify for a License Exception before you can send a copy out of the country.

*Question A(7):* We sell electronically recorded information, including software and databases, at wholesale and retail. Our products are available by mail order to any member of the public, though intended for specialists in various fields. They are priced to maximize sales to persons in those fields. Do we need a license to sell our products to foreign customers?

*Answer:* You would not need a license for otherwise controlled technology or software if the technology and software are made publicly available at a price that does not exceed the cost of production and distribution to the technical community. Even if priced at a higher level, the export or reexport of the technology or software source code in a library accessible to the public is not subject to the EAR (§734.7(a) of this part).

*Section B: Conferences*

*Question B(1):* I have been invited to give a paper at a prestigious international scientific conference on a subject listed as requiring a license under the EAR to all countries, except Canada. Scientists in the field are given an opportunity to submit applications to attend. Invitations are given to those judged to be the leading researchers in the field, and attendance is by invitation only. Attendees will be free to take notes, but not make electronic or verbatim recordings of the presentations or discussions. Some of the attendees will be foreigners. Do I need a license to give my paper?

*Answer:* No. Release of information at an open conference and information that has been released at an open conference is not subject to the EAR. The conference you describe fits the definition of an open conference (§734.7(a) of this part).

*Question B(2):* Would it make any difference if there were a prohibition on making any notes or other personal record of what transpires at the conference?

*Answer:* Yes. To qualify as an "open" conference, attendees must be permitted to take notes or otherwise make a personal record (although not necessarily a recording). If note taking or the making of personal records is altogether prohibited, the conference would not be considered "open".

*Question B(3):* Would it make any difference if there were also a registration fee?

*Answer:* That would depend on whether the fee is reasonably related to costs and reflects an intention that all interested and technically qualified persons should be able to attend (§734.7(a)(4)(ii) of this part).

*Question B(4):* Would it make any difference if the conference were to take place in another country?

*Answer:* No.

*Question B(5):* Must I have a license to send the paper I propose to present at such a foreign conference to the conference organizer for review?

*Answer:* No. A license is not required under the EAR to submit papers to foreign organizers of open conferences or other open gatherings with the intention that the papers will be delivered at the conference, and so made publicly available, if favorably received. The submission of the papers is not subject to the EAR (§734.7(a)(4)(iii) of this part).
Scope of the Export Administration Regulations

Question B(6): Would the answers to any of the foregoing questions be different if my work were supported by the Federal Government?

Answer: No. You may export and reexport the papers, even if the release of the paper violates any agreements you have made with your government sponsor. However, nothing in the EAR relieves you of responsibility for conforming to any controls you have agreed to in your Federal grant or contract.

Section C: Educational Instruction

Question C(1): I teach a university graduate course on design and manufacture of very high-speed integrated circuitry. Many of the students are foreigners. Do I need a license to teach this course?

Answer: No. Release of information by instruction in catalog courses and associated teaching laboratories of academic institutions is not subject to the EAR (§734.9 of this part).

Question C(2): Would it make any difference if some of the students were from countries to which export licenses are required?

Answer: No.

Question C(3): Would it make any difference if I talk about recent and as yet unpublished results from my laboratory research?

Answer: No.

Question C(4): Even if that research is funded by the Government?

Answer: Even then, but you would not be released from any separate obligations you have accepted in your grant or contract.

Question C(5): Would it make any difference if I were teaching at a foreign university?

Answer: No.

Question C(6): We teach proprietary courses on design and manufacture of high-performance machine tools. Is the instruction in our classes subject to the EAR?

Answer: Yes. That instruction would not qualify as "release of educational information" under §734.9 of this part because your proprietary business does not qualify as an "academic institution" within the meaning of §734.9 of this part. Conceivably, however, the instruction might qualify as "release at an open seminar, or other open gathering" under §734.7(a) of this part. The conditions for qualification of such a seminar or gathering as "open", including a fee "reasonably related to costs (of the conference, not of producing the data) and reflecting an intention that all interested and technically qualified persons be able to attend," would have to be satisfied.

Section D: Research, Correspondence, and Informal Scientific Exchanges

Question D(1): Do I need a license in order for a foreign graduate student to work in my laboratory?

Answer: Not if the research on which the foreign student is working qualifies as "fundamental research" under §734.8 of this part. In that case, the research is not subject to the EAR.

Question D(2): Our company has entered into a cooperative research arrangement with a research group at a university. One of the researchers in that group is a PRC national. We would like to share some of our proprietary information with
the university research group. We have no way of guaranteeing that this information will not get into the hands of the PRC scientist. Do we need to obtain a license to protect against that possibility?

Answer: No. The EAR do not cover the disclosure of information to any scientists, engineers, or students at a U.S. university in the course of industry-university research collaboration under specific arrangements between the firm and the university, provided these arrangements do not permit the sponsor to withhold from publication any of the information that he provides to the researchers. However, if your company and the researchers have agreed to a prohibition on publication, then you must obtain a license or qualify for a License Exception before transferring the information to the university. It is important that you as the corporate sponsor and the university get together to discuss whether foreign nationals will have access to the information, so that you may obtain any necessary authorization prior to transferring the information to the research team.

Question D(3): My university will host a prominent scientist from the PRC who is an expert on research in engineered ceramics and composite materials. Do I require a license before telling our visitor about my latest, as yet unpublished, research results in those fields?

Answer: Probably not. If you performed your research at the university, and you were subject to no contract controls on release of the research, your research would qualify as “fundamental research” (§734.8(a) of this part). Information arising during or resulting from such research is not subject to the EAR (§734.3(b)(3) of this part).

You should probably assume, however, that your visitor will be debriefed later about anything of potential military value he learns from you. If you are concerned that giving such information to him, even though permitted, could jeopardize U.S. security interests, the Commerce Department can put you in touch with appropriate Government scientists who can advise you. Send written communications, via courier, to:

Department of Commerce
Bureau of Industry and Security
Room 2705
14th Street and Pennsylvania Ave., NW.
Washington, DC 20230

Question D(4): Would it make any difference if I were proposing to talk with a PRC expert in China?

Answer: No, if the information in question arose during or resulted from the same “fundamental research.”

Question D(5): Could I properly do some work with him in his research laboratory inside China?

Answer: Application abroad of personal knowledge or technical experience acquired in the United States constitutes an export of that knowledge and experience, and such an export may be subject to the EAR. If any of the knowledge or experience you export in this way requires a license under the EAR, you must obtain such a license or qualify for a License Exception.

Question D(6): I would like to correspond and share research results with an Iranian expert in my field, which deals with technology that requires a license to all destinations except Canada. Do I need a license to do so?

Answer: Not as long as we are still talking
Scope of the Export Administration Regulations

about information that arose during or resulted from research that qualifies as “fundamental" under the rules spelled out in §734.8(a) of this part.

*Question D(7):* Suppose the research in question were funded by a corporate sponsor and I had agreed to prepublication review of any paper arising from the research?

*Answer:* Whether your research would still qualify as “fundamental" would depend on the nature and purpose of the prepublication review. If the review is intended solely to ensure that your publications will neither compromise patent rights nor inadvertently divulge proprietary information that the sponsor has furnished to you, the research could still qualify as “fundamental.” But if the sponsor will consider as part of its prepublication review whether it wants to hold your new research results as trade secrets or otherwise proprietary information (even if your voluntary cooperation would be needed for it to do so), your research would no longer qualify as “fundamental.” As used in these regulations it is the actual and intended openness of research results that primarily determines whether the research counts as “fundamental” and so is not subject to the EAR.

*Question D(8):* In determining whether research is thus open and therefore counts as “fundamental,” does it matter where or in what sort of institution the research is performed?

*Answer:* In principle, no. “Fundamental research” is performed in industry, Federal laboratories, or other types of institutions, as well as in universities. The regulations introduce some operational presumptions and procedures that can be used both by those subject to the regulations and by those who administer them to determine with some precision whether a particular research activity is covered. Recognizing that common and predictable norms operate in different types of institutions, the regulations use the institutional locus of the research as a starting point for these presumptions and procedures. Nonetheless, it remains the type of research, and particularly the intent and freedom to publish, that identifies “fundamental research,” not the institutional locus (§734.8(a) of this part).

*Question D(9):* I am doing research on high-powered lasers in the central basic-research laboratory of an industrial corporation. I am required to submit the results of my research for prepublication review before I can publish them or otherwise make them public. I would like to compare research results with a scientific colleague from Vietnam and discuss the results of the research with her when she visits the United States. Do I need a license to do so?

*Answer:* You probably do need a license (§734.8(d) of this part). However, if the only restriction on your publishing any of that information is a prepublication review solely to ensure that publication would compromise no patent rights or proprietary information provided by the company to the researcher your research may be considered “fundamental research,” in which case you may be able to share information because it is not subject to the EAR. Note that the information will be subject to the EAR if the prepublication review is intended to withhold the results of the research from publication.

*Question D(10):* Suppose I have already cleared my company's review process and am free to publish all the information I intend to share with my colleague, though I have not yet published?

*Answer:* If the clearance from your company means that you are free to make all the information publicly available without restriction or
Scope of the Export Administration Regulations

delay, the information is not subject to the EAR. (§734.8(d) of this part)

Question D(11): I work as a researcher at a Government-owned, contractor-operated research center. May I share the results of my unpublished research with foreign nationals without concern for export controls under the EAR?

Answer: That is up to the sponsoring agency and the center's management. If your research is designated "fundamental research" within any appropriate system devised by them to control release of information by scientists and engineers at the center, it will be treated as such by the Commerce Department, and the research will not be subject to the EAR. Otherwise, you would need to obtain a license or qualify for a License Exception, except to publish or otherwise make the information public (§734.8(c) of this part).

Section E: Federal Contract Controls

Question E(1): In a contract for performance of research entered into with the Department of Defense (DOD), we have agreed to certain national security controls. DOD is to have ninety days to review any papers we proposed before they are published and must approve assignment of any foreign nationals to the project. The work in question would otherwise qualify as "fundamental research" section under §734.8 of this part. Is the information arising during or resulting from this sponsored research subject to the EAR?

Answer: Under §734.11 of this part, any export or reexport of information resulting from government-sponsored research that is inconsistent with contract controls you have agreed to will not qualify as "fundamental research" and any such export or reexport would be subject to the EAR. Any such export or reexport that is consistent with the controls will continue to be eligible for export and reexport under the "fundamental research" rule set forth in §734.8(a) of this part. Thus, if you abide by the specific controls you have agreed to, you need not be concerned about violating the EAR. If you violate those controls and export or reexport information as "fundamental research" under §734.8(a) of this part, you may subject yourself to the sanctions provided for under the EAR, including criminal sanctions, in addition to administrative and civil penalties for breach of contract under other law.

Question E(2): Do the Export Administration Regulations restrict my ability to publish the results of my research?

Answer: The Export Administration Regulations are not the means for enforcing the national security controls you have agreed to. If such a publication violates the contract, you would be subject to administrative, civil, and possible criminal penalties under other law.

Section F: Commercial Consulting

Question F(1): I am a professor at a U.S. university, with expertise in design and creation of submicron devices. I have been asked to be a consultant for a "third-world" company that wishes to manufacture such devices. Do I need a license to do so?

Answer: Quite possibly you do. Application abroad of personal knowledge or technical experience acquired in the United States constitutes an export of that knowledge and experience that is subject to the Export Administration Regulations. If any part of the knowledge or experience your export or reexport deals with technology that requires a license under the EAR, you will need to obtain a license or qualify for a License Exception.
**Section G: Software**

*Question G(1):* Is the export or reexport of software in machine readable code subject to the EAR when the source code for such software is publicly available?

*Answer:* If the source code of a software program is publicly available, then the machine readable code compiled from the source code is software that is publicly available and therefore not subject to the EAR.

*Question G(2):* Is the export or reexport of software sold at a price that does not exceed the cost of reproduction and distribution subject to the EAR?

*Answer:* Software in machine readable code is publicly available if it is available to a community at a price that does not exceed the cost of reproduction and distribution. Such reproduction and distribution costs may include variable and fixed allocations of overhead and normal profit for the reproduction and distribution functions either in your company or in a third party distribution system. In your company, such costs may not include recovery for development, design, or acquisition. In this case, the provider of the software does not receive a fee for the inherent value of the software.

*Question G(3):* Is the export or reexport of software subject to the EAR if it is sold at a price BIS concludes in a classification letter to be sufficiently low so as not to subject it to the EAR?

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2 Exporters should note that these provisions do not apply to software controlled under the International Traffic in Arms Regulations (e.g., certain encryption software).

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**Section H: Available in a Public Library**

*Question H(1):* Is the export or reexport of information subject to the EAR if it is available in a library and sold through an electronic or print service?

*Answer:* Electronic and print services for the distribution of information may be relatively expensive in the marketplace because of the value vendors add in retrieving and organizing information in a useful way. If such information is also available in a library — itself accessible to the public — or has been published in any way, that information is “publicly available” for those reasons, and the information itself continues not to be subject to the EAR even though you access the information through an electronic or print service for which you or your employer pay a substantial fee.

*Question H(2):* Is the export or reexport of information subject to the EAR if the information is available in an electronic form in a library at no charge to the library patron?

*Answer:* Information available in an electronic form at no charge to the library patron in a library accessible to the public is information publicly available even though the library pays a substantial subscription fee for the electronic retrieval service.

*Question H(3):* Is the export or reexport of information subject to the EAR if the information
Scope of the Export Administration Regulations

is available in a library and sold for more than the cost of reproduction and distribution?

Answer: Information from books, magazines, dissertations, papers, electronic data bases, and other information available in a library that is accessible to the public is not subject to the EAR. This is true even if you purchase such a book at more than the cost of reproduction and distribution. In other words, such information is “publicly available” even though the author makes a profit on your particular purchase for the inherent value of the information.

Section I: Miscellaneous

Question I(1): The manufacturing plant that I work at is planning to begin admitting groups of the general public to tour the plant facilities. We are concerned that a license might be required if the tour groups include foreign nationals. Would such a tour constitute an export? If so, is the export subject to the EAR?

Answer: The EAR define exports and reexports of technology to include release through visual inspection by foreign nationals of U.S.-origin equipment and facilities. Such an export or reexport qualifies under the “publicly available” provision and would not be subject to the EAR so long as the tour is truly open to all members of the public, including your competitors, and you do not charge a fee that is not reasonably related to the cost of conducting the tours. Otherwise, you will have to obtain a license, or qualify for a License Exception, prior to permitting foreign nationals to tour your facilities (§734.7 of this part).

Question I(2): Is the export or reexport of information subject to the EAR if the information is not in a library or published, but sold at a price that does not exceed the cost of reproduction and distribution?

Answer: Information that is not in a library accessible to the public and that has not been published in any way, may nonetheless become “publicly available” if you make it both available to a community of persons and if you sell it at no more than the cost of reproduction and distribution. Such reproduction and distribution costs may include variable and fixed cost allocations of overhead and normal profit for the reproduction and distribution functions either in your company or in a third party distribution system. In your company, such costs may not include recovery for development, design, or acquisition costs of the technology or software. The reason for this conclusion is that the provider of the information receives nothing for the inherent value of the information.

Question I(3): Is the export or reexport of information contributed to an electronic bulletin board subject to the EAR?

Answer: Assume each of the following:

1. Information is uploaded to an electronic bulletin board by a person that is the owner or originator of the information;

2. That person does not charge a fee to the bulletin board administrator or the subscribers of the bulletin board; and

3. The bulletin board is available for subscription to any subscriber in a given community regardless of the cost of subscription.

Such information is “publicly available” and therefore not subject to the EAR even if it is not elsewhere published and is not in a library. The reason for this conclusion is that the bulletin board subscription charges or line charges are for distribution exclusively, and the provider of
Scope of the Export Administration Regulations

the information receives nothing for the inherent value of the information.

Question I(4): Is the export or reexport of patented information fully disclosed on the public record subject to the EAR?

Answer: Information to the extent it is disclosed on the patent record open to the public is not subject to the EAR even though you may use such information only after paying a fee in excess of the costs of reproduction and distribution. In this case the seller does receive a fee for the inherent value of the technical data; however, the export or reexport of the information is nonetheless not subject to the EAR because any person can obtain the technology from the public record and further disclose or publish the information. For that reason, it is impossible to impose export controls that deny access to the information.
CALCULATION OF VALUES FOR DE MINIMIS RULES

(a) Use the following guidelines in determining values for establishing exemptions or for submission of a request for authorization:

(1) U.S. content value.

   (i) U.S. content value is the delivered cost to the foreign manufacturer of the U.S. origin parts, components, or materials. (When affiliated firms have special arrangements that result in lower than normal pricing, the cost should reflect “fair market” prices that would normally be charged to similar, unaffiliated customers.)

   (ii) In calculating the U.S. content value, do not include parts, components, or materials that could be exported from the United States to the new country of destination without a license (designated as “NLR”) or under License Exception GBS (see part 740 of the EAR) or under NLR for items classified as EAR99.

(2) The foreign-made product value is the normal selling price f.o.b. factory (excluding value added taxes or excise taxes).

(3) To determine the value of the U.S.-origin controlled content, you should classify the U.S.-origin content on the Commerce Control List, determine those items that would require a license from BIS for reexport to the ultimate destination of the foreign-made product if such parts, components, or materials were reexported to that destination in the form received, and divide the total value of the controlled U.S. parts, components, and materials incorporated into the foreign-made item by the sale price of the foreign-made item.

(4) If no U.S. parts, components or materials are incorporated or if the incorporated U.S. parts, components, and materials are below the de minimis level, then the foreign-made item is not subject to the EAR by reason of §734.4 of this part, the classification of a foreign-made item is irrelevant in determining the scope of the EAR, and you should skip Step 4 in §732.2(d) and go on to consider Step 6 in §732.2(f) of the EAR regarding the foreign-produced direct product rule.

**Note to paragraph (a)** - U.S. origin peripheral or accessory devices that are merely rack mounted with or cable connected into foreign equipment are not deemed to be incorporated components even though intended for use with products made abroad. Rather, such items are treated as U.S. items that retain their identity and remain subject to the EAR.

(b) One-time report prior to reliance upon the de minimis exclusion.

(1) Report requirement. Before you may rely upon the de minimis exclusion for foreign software and technology commingled with U.S. software or technology, you must file a one-time report for the foreign software or technology. The report must include the percentage of U.S.-content by value and a description of your calculations including relevant values, assumptions, and the basis or methodologies for making the percentage calculation. The three criteria important to BIS in its review of your report will be the export price of the U.S.-content, the assumption regarding future sales of software, and the choice of the scope of foreign technology. Your methodologies must be based upon the accounting standards used in the operation of your business, and you must specify that standard in your report. Regardless of the accounting systems, standard, or conventions you use in the operation of your business, you may not
Scope of the Export Administration Regulations

depreciate the fair market values reported or otherwise reduce the fair market values by other accounting conventions such as depreciation. You may rely upon the de minimis exclusion from the commingled rule only to the extent you have reported the relevant calculations, values, assumptions, and the basis or methodologies for the calculations. These values may be historic or projected. You may rely on projected values only to the extent that and for so long as they remain consistent with your report or future values reduce the U.S.-content under your reported assumptions, basis, and methodologies. You are not required to file the above report if you do not choose to take advantage of the de minimis exclusion from the commingled rule.

(2) Export price. The report must include a description of the U.S.-content including its classification on the Commerce Control List, its performance characteristics and features, and the method of calculating its fair market value. The fair market value shall be the arms-length transaction price, if it is available. If an arms-length transaction price is unavailable, then the report will describe the valuation method chosen to calculate or derive the fair market value. Such methods may include comparable market prices or costs of production and distribution. This rule does not require calculations based upon any one accounting system or U.S. accounting standards. However, you must specify the accepted accounting standards you have chosen, and cost-based methods of valuation must be based upon records you maintain in the normal course of business. You should also indicate whether reported values are actual arms-length market prices or derived from comparable transactions or costs of production, overhead, and profit. For example, if you chose to make calculations under the transfer pricing rules of the United States Internal Revenue Code at section 482, your report should indicate that this is the source for your methodology, and you should also indicate which of the several methodologies in these transfer pricing rules you have chosen.

(3) Future software sales. For calculations of U.S.-content in foreign software, you shall include your estimate of future software sales in units and value along with the rationale and basis for those estimates in the report. Unlike parts incorporated into commodities, the cost of U.S. software code will be attributed or allocated to the future sales of foreign-made software incorporating the U.S. code, to determine the percentage of U.S. controlled content. In making this calculation for foreign-made software, you must make an estimate of future software sales of that foreign software if it is commingled with or incorporated with the U.S. code. The value of the U.S. code commingled with or incorporated into the foreign made software shall be divided by the total selling price of all foreign-made software units already sold, plus the total selling price of all foreign-made software units estimated for future sales.

(4) Foreign technology and software. For calculations of U.S.-content in foreign technology and software, you shall include in the report a description of the foreign technology or software and a description of its fair market value along with the rationale and basis for the selection and valuation of such foreign software or technology. The report does not require information regarding destinations and end users for reexport. The purpose of the report is solely to permit the U.S. Government to evaluate the reasonableness of U.S.-content calculations.

(5) Report and wait. If you have not been contacted by BIS concerning your report within thirty days after filing the report with BIS, you may rely upon the calculations in your report and the de minimis exclusions for software and technology for so long as you are not contacted by BIS. BIS may contact you concerning your report to inquire of you further or to indicate that BIS does not accept the assumptions or rationale for your calculations. If you receive such a contact or communication from BIS, you may not
Scope of the Export Administration Regulations

rely upon the de minimis exclusions for software and technology in §734.4 of this part until BIS has indicated whether or not you may do so in the future. You must include in your report the name, title, address, telephone number, and facsimile number of the person BIS may contact concerning your report. Please submit your report to:

(i) E-mail: md2@bis.doc.gov;

(ii) Fax: (202) 482-3355; or
This Supplement No. 1 contains explanatory questions and answers relating to technology and software that is subject to the EAR. It is intended to give the public guidance in understanding how BIS interprets this part, but is only illustrative, not comprehensive. In addition, facts or circumstances that differ in any material way from those set forth in the questions or answers will be considered under the applicable provisions of the EAR. Exporters should note that the provisions of this supplement do not apply to encryption software (including source code) transferred from the U.S. Munitions List to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date. See §742.15 of the EAR. This Supplement is divided into nine sections according to topic as follows:

**Section A:** Publication of technology and exports and reexports of technology that has been or will be published.

**Section B:** Release of technology at conferences.

**Section C:** Educational instruction.

**Section D:** Research, correspondence, and informal scientific exchanges.

**Section E:** Federal contract controls.

**Section F:** Commercial consulting.

**Section G:** Software.

**Section H:** Availability in a public library.

**Section I:** Miscellaneous.
Scope of the Export Administration Regulations

Section A: Publication

Question A(1): I plan to publish in a foreign journal a scientific paper describing the results of my research, which is in an area listed in the EAR as requiring a license to all countries except Canada. Do I need a license to send a copy to my publisher abroad?

Answer: No. This export transaction is not subject to the EAR. The EAR do not cover technology that is already publicly available, as well as technology that is made public by the transaction in question (§734.3 and 734.7 of this part). Your research results would be made public by the planned publication. You would not need a license.

Question A(2): Would the answer differ depending on where I work or where I performed the research?

Answer: No. Of course, the result would be different if your employer or another sponsor of your research imposed restrictions on its publication (§734.8 of this part).

Question A(3): Would I need a license to send the paper to the editors of a foreign journal for review to determine whether it will be accepted for publication?

Answer: No. This export transaction is not subject to the EAR because you are submitting the paper to the editors with the intention that the paper will be published if favorably received (§734.7(a)(4)(iii) of this part).

Question A(4): The research on which I will be reporting in my paper is supported by a grant from the Department of Energy (DOE). The grant requires prepublication clearance by DOE. Does that make any difference under the Export Administration Regulations?

Answer: No, the transaction is not subject to the EAR. But if you published in violation of any Department of Energy controls you have accepted in the grant, you may be subject to appropriate administrative, civil, or criminal sanctions under other laws.

Question A(5): We provide consulting services on the design, layout, and construction of integrated circuit plants and production lines. A major part of our business is the publication for sale to clients of detailed handbooks and reference manuals on key aspects on the design and manufacturing processes. A typical cost of publishing such a handbook and manual might be $500; the typical sales price is about $15,000. Is the publication and sale of such handbooks or manuals subject to the EAR?

Answer: Yes. The price is above the cost of reproduction and distribution (§734.7(a)(1) of this part). Thus, you would need to obtain a license or qualify for a License Exception before you could export or reexport any of these handbooks or manuals.

Question A(6): My Ph.D. thesis is on technology, listed in the EAR as requiring a license to all destinations except Canada, which has never been published for general distribution. However, the thesis is available at the institution from which I took the degree. Do I need a license to send another copy to a colleague overseas?

Answer: That may depend on where in the institution it is available. If it is not readily available in the university library (e.g., by filing in open stacks with a reference in the catalog), it is not "publicly available" and the export or reexport would be subject to the EAR on that ground. The export or reexport would not be subject to the EAR if your Ph.D. research qualified as "fundamental research" under §734.8 of this part. If not, however, you will need to obtain a license or qualify for a License
Scope of the Export Administration Regulations

Exception before you can send a copy out of the country.

Question A(7): We sell electronically recorded information, including software and databases, at wholesale and retail. Our products are available by mail order to any member of the public, though intended for specialists in various fields. They are priced to maximize sales to persons in those fields. Do we need a license to sell our products to foreign customers?

Answer: You would not need a license for otherwise controlled technology or software if the technology and software are made publicly available at a price that does not exceed the cost of production and distribution to the technical community. Even if priced at a higher level, the export or reexport of the technology or software source code in a library accessible to the public is not subject to the EAR (§734.7(a) of this part).

Section B: Conferences

Question B(1): I have been invited to give a paper at a prestigious international scientific conference on a subject listed as requiring a license under the EAR to all countries, except Canada. Scientists in the field are given an opportunity to submit applications to attend. Invitations are given to those judged to be the leading researchers in the field, and attendance is by invitation only. Attendees will be free to take notes, but not make electronic or verbatim recordings of the presentations or discussions. Some of the attendees will be foreigners. Do I need a license to give my paper?

Answer: No. Release of information at an open conference and information that has been released at an open conference is not subject to the EAR. The conference you describe fits the definition of an open conference (§734.7(a) of this part).

Question B(2): Would it make any difference if there were a prohibition on making any notes or other personal record of what transpires at the conference?

Answer: Yes. To qualify as an "open" conference, attendees must be permitted to take notes or otherwise make a personal record (although not necessarily a recording). If note taking or the making of personal records is altogether prohibited, the conference would not be considered "open".

Question B(3): Would it make any difference if there were also a registration fee?

Answer: That would depend on whether the fee is reasonably related to costs and reflects an intention that all interested and technically qualified persons should be able to attend (§734.7(a)(4)(ii) of this part).

Question B(4): Would it make any difference if the conference were to take place in another country?

Answer: No.

Question B(5): Must I have a license to send the paper I propose to present at such a foreign conference to the conference organizer for review?

Answer: No. A license is not required under the EAR to submit papers to foreign organizers of open conferences or other open gatherings with the intention that the papers will be delivered at the conference, and so made publicly available, if favorably received. The submission of the papers is not subject to the EAR (§734.7(a)(4)(iii) of this part).

Question B(6): Would the answers to any of the foregoing questions be different if my work were...
Scope of the Export Administration Regulations

supported by the Federal Government?

*Answer:* No. You may export and reexport the papers, even if the release of the paper violates any agreements you have made with your government sponsor. However, nothing in the EAR relieves you of responsibility for conforming to any controls you have agreed to in your Federal grant or contract.

Section C: Educational Instruction

*Question C(1):* I teach a university graduate course on design and manufacture of very high-speed integrated circuitry. Many of the students are foreigners. Do I need a license to teach this course?

*Answer:* No. Release of information by instruction in catalog courses and associated teaching laboratories of academic institutions is not subject to the EAR ($\S$734.9 of this part).

*Question C(2):* Would it make any difference if some of the students were from countries to which export licenses are required?

*Answer:* No.

*Question C(3):* Would it make any difference if I talk about recent and as yet unpublished results from my laboratory research?

*Answer:* No.

*Question C(4):* Even if that research is funded by the Government?

*Answer:* Even then, but you would not be released from any separate obligations you have accepted in your grant or contract.

*Question C(5):* Would it make any difference if I were teaching at a foreign university?

Answer: No.

*Question C(6):* We teach proprietary courses on design and manufacture of high-performance machine tools. Is the instruction in our classes subject to the EAR?

*Answer:* Yes. That instruction would not qualify as “release of educational information” under $\S$734.9 of this part because your proprietary business does not qualify as an “academic institution” within the meaning of $\S$734.9 of this part. Conceivably, however, the instruction might qualify as “release at an open seminar, or other open gathering” under $\S$734.7(a) of this part. The conditions for qualification of such a seminar or gathering as “open”, including a fee “reasonably related to costs (of the conference, not of producing the data) and reflecting an intention that all interested and technically qualified persons be able to attend,” would have to be satisfied.

Section D: Research, Correspondence, and Informal Scientific Exchanges

*Question D(1):* Do I need a license in order for a foreign graduate student to work in my laboratory?

*Answer:* Not if the research on which the foreign student is working qualifies as “fundamental research” under $\S$734.8 of this part. In that case, the research is not subject to the EAR.

*Question D(2):* Our company has entered into a cooperative research arrangement with a research group at a university. One of the researchers in that group is a PRC national. We would like to share some of our proprietary information with the university research group. We have no way of guaranteeing that this information will not get into the hands of the PRC scientist. Do we need to obtain a license to protect against that possibility?
Scope of the Export Administration Regulations

Answer: No. The EAR do not cover the disclosure of information to any scientists, engineers, or students at a U.S. university in the course of industry-university research collaboration under specific arrangements between the firm and the university, provided these arrangements do not permit the sponsor to withhold from publication any of the information that he provides to the researchers. However, if your company and the researchers have agreed to a prohibition on publication, then you must obtain a license or qualify for a License Exception before transferring the information to the university. It is important that you as the corporate sponsor and the university get together to discuss whether foreign nationals will have access to the information, so that you may obtain any necessary authorization prior to transferring the information to the research team.

Question D(3): My university will host a prominent scientist from the PRC who is an expert on research in engineered ceramics and composite materials. Do I require a license before telling our visitor about my latest, as yet unpublished, research results in those fields?

Answer: Probably not. If you performed your research at the university, and you were subject to no contract controls on release of the research, your research would qualify as “fundamental research” (§734.8(a) of this part). Information arising during or resulting from such research is not subject to the EAR (§734.3(b)(3) of this part).

You should probably assume, however, that your visitor will be debriefed later about anything of potential military value he learns from you. If you are concerned that giving such information to him, even though permitted, could jeopardize U.S. security interests, the Commerce Department can put you in touch with appropriate Government scientists who can advise you. Send written communications, via courier, to:

Department of Commerce
Bureau of Industry and Security
Room 2705
14th Street and Pennsylvania Ave., NW.
Washington, DC 20230

Question D(4): Would it make any difference if I were proposing to talk with a PRC expert in China?

Answer: No, if the information in question arose during or resulted from the same “fundamental research.”

Question D(5): Could I properly do some work with him in his research laboratory inside China?

Answer: Application abroad of personal knowledge or technical experience acquired in the United States constitutes an export of that knowledge and experience, and such an export may be subject to the EAR. If any of the knowledge or experience you export in this way requires a license under the EAR, you must obtain such a license or qualify for a License Exception.

Question D(6): I would like to correspond and share research results with an Iranian expert in my field, which deals with technology that requires a license to all destinations except Canada. Do I need a license to do so?

Answer: Not as long as we are still talking about information that arose during or resulted from research that qualifies as “fundamental” under the rules spelled out in §734.8(a) of this part.

Question D(7): Suppose the research in question were funded by a corporate sponsor and I had
agreed to prepublication review of any paper arising from the research?

Answer: Whether your research would still qualify as "fundamental" would depend on the nature and purpose of the prepublication review. If the review is intended solely to ensure that your publications will neither compromise patent rights nor inadvertently divulge proprietary information that the sponsor has furnished to you, the research could still qualify as "fundamental." But if the sponsor will consider as part of its prepublication review whether it wants to hold your new research results as trade secrets or otherwise proprietary information (even if your voluntary cooperation would be needed for it to do so), your research would no longer qualify as "fundamental." As used in these regulations it is the actual and intended openness of research results that primarily determines whether the research counts as "fundamental" and so is not subject to the EAR.

Question D(8): In determining whether research is thus open and therefore counts as "fundamental," does it matter where or in what sort of institution the research is performed?

Answer: In principle, no. "Fundamental research" is performed in industry, Federal laboratories, or other types of institutions, as well as in universities. The regulations introduce some operational presumptions and procedures that can be used both by those subject to the regulations and by those who administer them to determine with some precision whether a particular research activity is covered. Recognizing that common and predictable norms operate in different types of institutions, the regulations use the institutional locus of the research as a starting point for these presumptions and procedures. Nonetheless, it remains the type of research, and particularly the intent and freedom to publish, that identifies "fundamental research," not the institutional

locus (§734.8(a) of this part).

Question D(9): I am doing research on high-powered lasers in the central basic-research laboratory of an industrial corporation. I am required to submit the results of my research for prepublication review before I can publish them or otherwise make them public. I would like to compare research results with a scientific colleague from Vietnam and discuss the results of the research with her when she visits the United States. Do I need a license to do so?

Answer: You probably do need a license (§734.8(d) of this part). However, if the only restriction on your publishing any of that information is a prepublication review solely to ensure that publication would compromise no patent rights or proprietary information provided by the company to the researcher your research may be considered "fundamental research," in which case you may be able to share information because it is not subject to the EAR. Note that the information will be subject to the EAR if the prepublication review is intended to withhold the results of the research from publication.

Question D(10): Suppose I have already cleared my company's review process and am free to publish all the information I intend to share with my colleague, though I have not yet published?

Answer: If the clearance from your company means that you are free to make all the information publicly available without restriction or delay, the information is not subject to the EAR. (§734.8(d) of this part)

Question D(11): I work as a researcher at a Government-owned, contractor-operated research center. May I share the results of my unpublished research with foreign nationals without concern for export controls under the EAR?
Scope of the Export Administration Regulations

Answer: That is up to the sponsoring agency and the center's management. If your research is designated "fundamental research" within any appropriate system devised by them to control release of information by scientists and engineers at the center, it will be treated as such by the Commerce Department, and the research will not be subject to the EAR. Otherwise, you would need to obtain a license or qualify for a License Exception, except to publish or otherwise make the information public (§734.8(c) of this part).

Section E: Federal Contract Controls

Question E(1): In a contract for performance of research entered into with the Department of Defense (DOD), we have agreed to certain national security controls. DOD is to have ninety days to review any papers we proposed before they are published and must approve assignment of any foreign nationals to the project. The work in question would otherwise qualify as "fundamental research" section under §734.8 of this part. Is the information arising during or resulting from this sponsored research subject to the EAR?

Answer: Under §734.11 of this part, any export or reexport of information resulting from government-sponsored research that is inconsistent with contract controls you have agreed to will not qualify as "fundamental research" and any such export or reexport would be subject to the EAR. Any such export or reexport that is consistent with the controls will continue to be eligible for export and reexport under the "fundamental research" rule set forth in §734.8(a) of this part. Thus, if you abide by the specific controls you have agreed to, you need not be concerned about violating the EAR. If you violate those controls and export or reexport information as "fundamental research" under §734.8(a) of this part, you may subject yourself to the sanctions provided for under the EAR, including criminal sanctions, in addition to administrative and civil penalties for breach of contract under other law.

Question E(2): Do the Export Administration Regulations restrict my ability to publish the results of my research?

Answer: The Export Administration Regulations are not the means for enforcing the national security controls you have agreed to. If such a publication violates the contract, you would be subject to administrative, civil, and possible criminal penalties under other law.

Section F: Commercial Consulting

Question F(1): I am a professor at a U.S. university, with expertise in design and creation of submicron devices. I have been asked to be a consultant for a "third-world" company that wishes to manufacture such devices. Do I need a license to do so?

Answer: Quite possibly you do. Application abroad of personal knowledge or technical experience acquired in the United States constitutes an export of that knowledge and experience that is subject to the Export Administration Regulations. If any part of the knowledge or experience your export or reexport deals with technology that requires a license under the EAR, you will need to obtain a license or qualify for a License Exception.

Section G: Software

Exporters should note that these provisions do not apply to software controlled under the International Traffic in Arms Regulations (e.g., certain encryption software).
Scope of the Export Administration Regulations

*Question G(1):* Is the export or reexport of software in machine readable code subject to the EAR when the source code for such software is publicly available?

*Answer:* If the source code of a software program is publicly available, then the machine readable code compiled from the source code is software that is publicly available and therefore not subject to the EAR.

*Question G(2):* Is the export or reexport of software sold at a price that does not exceed the cost of reproduction and distribution subject to the EAR?

*Answer:* Software in machine readable code is publicly available if it is available to a community at a price that does not exceed the cost of reproduction and distribution. Such reproduction and distribution costs may include variable and fixed allocations of overhead and normal profit for the reproduction and distribution functions either in your company or in a third party distribution system. In your company, such costs may not include recovery for development, design, or acquisition. In this case, the provider of the software does not receive a fee for the inherent value of the software.

*Question G(3):* Is the export or reexport of software subject to the EAR if it is sold at a price BIS concludes in a classification letter to be sufficiently low so as not to subject it to the EAR?

*Answer:* In response to classification requests, BIS may choose to classify certain software as not subject to the EAR even though it is sold at a price above the costs of reproduction and distribution as long as the price is nonetheless sufficiently low to qualify for such a classification in the judgment of BIS.

Section H: Available in a Public Library

*Question H(1):* Is the export or reexport of information subject to the EAR if it is available in a library and sold through an electronic or print service?

*Answer:* Electronic and print services for the distribution of information may be relatively expensive in the marketplace because of the value vendors add in retrieving and organizing information in a useful way. If such information is also available in a library -- itself accessible to the public -- or has been published in any way, that information is "publicly available" for those reasons, and the information itself continues not to be subject to the EAR even though you access the information through an electronic or print service for which you or your employer pay a substantial fee.

*Question H(2):* Is the export or reexport of information subject to the EAR if the information is available in an electronic form in a library at no charge to the library patron?

*Answer:* Information available in an electronic form at no charge to the library patron in a library accessible to the public is information publicly available even though the library pays a substantial subscription fee for the electronic retrieval service.

*Question H(3):* Is the export or reexport of information subject to the EAR if the information is available in a library and sold for more than the cost of reproduction and distribution?

*Answer:* Information from books, magazines, dissertations, papers, electronic data bases, and other information available in a library that is accessible to the public is not subject to the EAR. This is true even if you purchase such a book at more than the cost of reproduction and
Scope of the Export Administration Regulations

distribution. In other words, such information is "publicly available" even though the author makes a profit on your particular purchase for the inherent value of the information.

Section I: Miscellaneous

Question I(1): The manufacturing plant that I work at is planning to begin admitting groups of the general public to tour the plant facilities. We are concerned that a license might be required if the tour groups include foreign nationals. Would such a tour constitute an export? If so, is the export subject to the EAR?

Answer: The EAR define exports and reexports of technology to include release through visual inspection by foreign nationals of U.S.-origin equipment and facilities. Such an export or reexport qualifies under the "publicly available" provision and would not be subject to the EAR so long as the tour is truly open to all members of the public, including your competitors, and you do not charge a fee that is not reasonably related to the cost of conducting the tours. Otherwise, you will have to obtain a license, or qualify for a License Exception, prior to permitting foreign nationals to tour your facilities (§734.7 of this part).

Question I(2): Is the export or reexport of information subject to the EAR if the information is not in a library or published, but sold at a price that does not exceed the cost of reproduction and distribution?

Answer: Information that is not in a library accessible to the public and that has not been published in any way, may nonetheless become "publicly available" if you make it both available to a community of persons and if you sell it at no more than the cost of reproduction and distribution. Such reproduction and distribution costs may include variable and fixed cost allocations of overhead and normal profit for the reproduction and distribution functions either in your company or in a third party distribution system. In your company, such costs may not include recovery for development, design, or acquisition costs of the technology or software. The reason for this conclusion is that the provider of the information receives nothing for the inherent value of the information.

Question I(3): Is the export or reexport of information contributed to an electronic bulletin board subject to the EAR?

Answer: Assume each of the following:

1. Information is uploaded to an electronic bulletin board by a person that is the owner or originator of the information;

2. That person does not charge a fee to the bulletin board administrator or the subscribers of the bulletin board; and

3. The bulletin board is available for subscription to any subscriber in a given community regardless of the cost of subscription.

Such information is "publicly available" and therefore not subject to the EAR even if it is not elsewhere published and is not in a library. The reason for this conclusion is that the bulletin board subscription charges or line charges are for distribution exclusively, and the provider of the information receives nothing for the inherent value of the information.

Question I(4): Is the export or reexport of patented information fully disclosed on the public record subject to the EAR?

Answer: Information to the extent it is
Scope of the Export Administration Regulations

disclosed on the patent record open to the public is not subject to the EAR even though you may use such information only after paying a fee in excess of the costs of reproduction and distribution. In this case the seller does receive a fee for the inherent value of the technical data; however, the export or reexport of the information is nonetheless not subject to the EAR because any person can obtain the technology from the public record and further disclose or publish the information. For that reason, it is impossible to impose export controls that deny access to the information.
EXPORT CONTROLS

Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Universities
EXPORT CONTROLS

Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Universities

What GAO Found

The U.S. export control system requires export licensing for defense items and items that have both commercial and military applications, except where exclusions apply, such as those applicable to universities in some circumstances. The U.S. export control agencies place the onus on universities to understand and comply with the regulations. According to university officials we interviewed, their institutions focus almost exclusively on fundamental research—defined as basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community. Such research is generally not subject to export controls. Universities we visited conduct research in such areas as nanotechnologies, computer security, and chemical engineering. To ensure their research remains in the public domain, university officials said they negotiate contract language to remove publication or other dissemination restrictions for research they consider to be fundamental. If export controls apply, university officials stated they sometimes involve only those students eligible to conduct the research under a license exclusion, to avoid the lengthy license application process. In other cases, they refer such work to off-campus associated facilities that can better regulate and control foreign national access to the research. Universities we visited indicated that government-provided training and guidance on export control regulations is limited in informing their efforts to manage and protect export-controlled information in the university environment.

State and Commerce officials expressed concerns that universities may not correctly interpret and apply export regulations, given the large number of foreign students participating in research at universities and the relative lack of license applications from universities. Although federal internal control standards contain guidelines for agencies to conduct risk assessments, State and Commerce have not conducted an overall assessment of available trend data on technology development research and foreign participation in such research at U.S. universities to identify potential vulnerabilities. For example, U.S. government agencies collect data on foreign student nationality, school enrollment, and types of research conducted at universities for federal agencies, which could supplement information that State and Commerce receive from visa application processes and other sources. Although State and Commerce provide guidance through training seminars, agency Web sites, and telephone help desks to assist exporters in understanding and complying with regulations, officials stated that their focus is on processing export license applications—primarily from industry. Recently, Commerce established an advisory committee composed of industry and university representatives who are expected to discuss issues such as the nature of university research and its relation to export controls.

Why GAO Did This Study

Foreign students and scholars have made substantial contributions to U.S. research efforts and technology development. However, according to a federal government intelligence assessment, foreign access to sensitive U.S. technology has imposed a significant but unquantifiable cost to the United States.

Given this risk, GAO was asked to (1) describe the nature of the research at universities and identify steps they take to comply with export controls and (2) assess efforts by the Departments of Commerce and State—the key export control agencies—to determine the risk of export violations in university research. GAO reviewed Commerce and State export control programs and met with officials from 13 universities, selected based on their foreign student populations, applications for export licenses, and federal grants and contracts.

What GAO Recommends

GAO recommends that Commerce and State use available information to assess potential vulnerabilities and based on this assessment improve outreach, guidance, and interagency coordination. The agencies generally concurred, but State disagreed with our recommendation on assessing vulnerabilities. Broader assessments would increase State’s knowledge of risks and help improve its guidance to universities.


To view the full product, including the scope and methodology, click on the link above. For more information, contact John Hutton at (202) 512-7773 or huttonj@gao.gov.
August 15, 2008

U.S. Department of Commerce
Bureau of Industry and Security, Regulatory Policy Division
14th & Pennsylvania Avenue, NW, Room 2705
Washington, DC 20230

Via Fax: 202-482-3355

RE: Comments on DEAC Report Recommendations (Docket No. 080512652-8653-01)

On behalf of the Association of American Universities (AAU) and the Council on Governmental Relations (COGR), we are pleased to respond to the May 19, 2008 Federal Register Notice soliciting comments on two specific recommendations made by the Deemed Export Advisory Committee (DEAC) in its report, “The Deemed Export Rule in the Era of Globalization.”

AAU represents 60 leading U.S. public and private research universities and is devoted to maintaining a strong national system of academic research and education. COGR is an association of 178 research-intensive universities, affiliated hospitals, and research institutes that is specifically concerned with the impact of government regulations, policies, and practices on the performance of research conducted at its member institutions. COGR and AAU and our member universities participated in many of the DEAC’s regional public meetings; we were pleased the DEAC chose to hold several of those meetings on university campuses. Our associations greatly appreciate the work of the DEAC and its members’ thoughtful analysis of problems with the current deemed export control rules.

The Commerce Department Bureau of Information and Security (BIS) has requested information from the affected communities on two specific issues examined by the DEAC. The first issue concerns narrowing the scope of technologies on the Commerce Control List (CCL) subject to deemed export licensing requirements and conducting an outside review of such technologies. The second issue concerns whether the various affiliations that a foreign national might have with countries other than those in which they enjoy citizenship should be factored into export license requirements and if so, what types of affiliations should be considered and by whom.

Below are our joint comments concerning these two matters.

1) Narrowing the Scope of Technologies on the Commerce Control List Subject to Deemed Export Licensing Requirements and Conducting an Outside Review of Technologies

For the most part, the research conducted on university campuses is of a fundamental nature and specifically intended for broad-based dissemination for purposes of scientific advancement. It is therefore excluded from current deemed export control licensing requirements under parts 734.3 and 734.8 of the Export Administration Regulations (EAR).
In those areas where our universities are under contractual agreement to control particular technologies, have agreed not to publish or disseminate research findings, or have made specific agreements that require confidentiality or involve non-disclosure agreements, clearly deemed export licensing may apply if the technical information is, in fact, controlled. In such situations our universities must be vigilant in ensuring that they have adequate export control compliance and control plans in place. In these areas, export controls can have a significant impact on our ability to conduct university based research.

With this in mind, we offer the following comments on the DEAC’s specific recommendation to narrow the scope of technologies on the CCL subject to deemed export licensing requirements.

As we have expressed in previous comments to BIS, we fully concur with the DEAC’s basic finding that too many technologies are subject to deemed export control. We believe the list of covered technologies should be drastically reduced. Particularly important is the DEAC report’s recognition of the increasingly global nature of the scientific and engineering enterprise and the critical need for the U.S. scientific community to partner in that enterprise.

We also agree fully with the report’s conclusion that erecting high walls around large segments of the nation’s scientific and engineering knowledge is not only increasingly impracticable, but also counterproductive to our economic competitiveness and national security. Clearly, the current Commerce Control List (CCL) is applied far too broadly for purposes of deemed exports and should be greatly reduced.

We believe that deemed export requirements should be applied to only a very narrow subset of technologies for two reasons. First, since other countries do not have regulations which are comparable to our U.S. deemed export policies, experts in those countries are free to share the same information the United States seeks to restrict. Hence the U.S.’ deemed export rule is more likely to hurt U.S. industry and our universities as well as U.S. economic competitiveness, instead of preventing the dissemination of information.

Second, in many instances knowledge transferred to foreign nationals in the U.S. is transferred for specific work or research that the foreign national is conducting in the U.S either at a particular company, or at a U.S. university. We question the basis for a presumption that such knowledge will be exported abroad. In fact, a vast majority of these foreign nationals have no intention of exporting that information abroad. We, therefore, believe that clear intent to export information must be incorporated by the Commerce Department as a consideration in determining if a deemed export license is required.

How then do we best limit access to technologies and for whom and when specifically should such limitations apply? Clearly, careful consideration is needed as to which of these technologies warrant such high fences. Such decisions must be based upon clear criteria as discussed below. In accordance with the DEAC report, a zero-based review of CCL technologies currently controlled for deemed export should be conducted. Moreover, the technologies on the list need to be reviewed annually and updated by removing those that no longer warrant protection and adding as necessary new emerging technologies of concern.

The zero-based assessment should be undertaken by the new BIS Emerging Technologies and Research Advisory Committee (ETRAC). Recently, the university community enthusiastically recommended a number of experts from our campuses for membership on the new Emerging Technologies and Research Advisory Committee (ETRAC). This group would be in a position to help to
assess which very short list of technologies can and should be protected for national security purposes through the use of deemed export control licenses as opposed to classification.

To supplement and support the work of the ETRAC, BIS must be provided with the resources and technical staff capabilities to support this review process on an annual basis. Obviously, a review of this nature will be a daunting task with more than five hundred Export Control Classification Numbers (ECCNs), which, in turn, have many different subcomponents that must be considered. Additional BIS staff may be required to undertake the initial review and to update the CCL regularly. We call upon the Department and the Congress to ensure that BIS has the appropriate personnel to carry out this review process annually. We also encourage BIS to examine if there is a role for the National Academies in making recommendations pertaining to the review.

We recommend that the ETRAC and BIS staff adopt the following principles in conducting their review:

a) Only information about specific technologies that pose a clear threat to U.S. security interests and cannot be controlled more appropriately by classification should be controlled as deemed exports. An assessment of whether and how information about a particular technology, if exported from the U.S., could threaten U.S. national security interests must be conducted. Is the technology a unique emerging technology that poses a clear security threat? If no valid security threat from the transfer of specific knowledge about a particular technology from the United States exists, then it should be removed from the CCL for purposes of deemed exports.

b) If information about a particular technology is reasonably available and can readily be gleaned from elsewhere in the world, deemed export controls should not be applied to it. The current state of international technological knowhow must be evaluated. There is no value in controlling technological information which is widely available outside of the United States. The technological information that most deserves protection is that which is exclusively confined to the United States and our allies.

c) All “use” technology should be removed from regulation by deemed export controls except for specific instances where it is demonstrated that it meets the criteria set forth above. “Use” technology has value only to the extent that someone has the physical technology in hand and can thereby take advantage of that technology. Because the CCL provides rigorous controls on physical exports, additional constraints through the application of deemed export controls on use technology are redundant. Regulating the transfer of information about use technology serves only to overburden Commerce staff while serving no useful purpose in protecting our national security. If a technology should be controlled for deemed export under a) or b) above, controls will apply to the technical data, and the scope of control may be addressed in the listing. The focus of our deemed export regulations should rightfully be on “production” and “development” technology, as opposed to “use” technology.

d) Dual-use items and information controlled for purposes of deemed export should be consistent with regulations issued by other federal agencies pertaining to the protection of national and homeland security. For example, the Department of Commerce should reconcile the Category I biological agents on the CCL (1C351-4, 1C360 and 1C35) with the agents regulated by the CDC, USDA and NIH from which the CCL is derived. To the extent that biologicals are listed on the CCL, the DOC should include all the exemptions that those agencies recognize. “Vesicular Stomatitis Virus” (ECCN 1C352) is a specific example, and there are others. While the USDA has identified “Vesicular Stomatitis Virus (exotic)” as a Select Agent, the CCL listing includes domestic and
attenuated strains that are not regulated by the USDA. It makes no sense to regulate for deemed export information about a biological agent that the CDC, USDA and NIH have determined to pose no security risk. This is an issue that applies equally to actual physical exports.

As the BIS moves to create the ETRAC and to assess current and future technologies that are controlled for purposes of deemed export, we would strongly encourage BIS to adopt these principles.

2) Comprehensive Assessment of Foreign National Affiliation

The DEAC recommended a broad-based review of the background of foreign nationals and specifically that an individual’s personal loyalty to countries of concern should be assessed in determining if export licenses are required. An earlier recommendation put forward by the Commerce Department’s Inspector General (IG) proposed that an individual’s birthplace should be considered in determining if export licenses were required.

AAU and COGR have expressed deep concern about both the IG’s recommendation concerning country of birth and the DEAC’s recommendation suggesting that universities and industry assess individual loyalties in their determination whether an export license application is required. However, universities do not have the information, expertise or resources to adequately conduct such security, background or loyalty checks on our foreign national students and employees. Once foreign nationals, especially students, arrive at our campuses to conduct research, we are not in a position to further assess their foreign loyalties or affiliations beyond citizenship. Expecting universities to do this, as opposed to the government, is unreasonable and certainly will not be an effective means to ensure our national security. **We continue to maintain that the visa screening process provides our best defense against individuals affiliated with nations, foreign entities, or terrorist groups that threaten our national and homeland security or who have criminal intent and aim to do our country harm.**

Moreover, we believe that such an expansion of export control requirements raises serious questions about privacy and civil liberties that arise when the federal government makes distinctions based on national origin or perceived foreign loyalties. While national security is certainly a compelling interest, any blanket policy premised on the assumption that all individuals who hold affiliations with particular foreign countries, but who are not citizens of those countries, still may hold some foreign allegiance is overly broad.

As an alternative, we recommend that the Department of Commerce establish clear and reasonable criteria for what justifies a determination that an individual could not be trusted with access to technologies on the CCL. We believe the criteria should be consistent with the standards used in Visa Mantis reviews. If a particular individual is deemed to pose a threat to the United States such that he or she cannot be trusted with access to CCL technologies, that person should not be granted a visa to study or work in such fields in the first place. Once an individual is admitted to the United States, knowledge provided to them about specific export controlled technologies should only require an export license if a university has actual knowledge that the individual being provided the information has the specific intent of exporting it to a controlled country.

It is important that the criteria reflect the recognition that pervades the DEAC report—that international scientific exchanges are in the United States' interests. We suggest that the basis of the new criteria should be:
A foreign national from a country of concern for a particular technology should be excluded from access to that controlled technology only if the person transferring the technical information to a foreign national has specific and credible information that this individual will: a) export controlled technology abroad to a country for which the technology is controlled, or b) commit or support an attack on the United States with information they have obtained about a controlled technology.

The university community stands ready to work with the Department to develop such criteria and enact more reasonable ways to facilitate security, such as the use of non-disclosure agreements or affidavits.

**Conclusion**

Current deemed export control policy has been damaging to U.S. industry, U.S. research and U.S. competitiveness. We therefore commend the DEAC and the Department of Commerce for their work in reviewing the current deemed export system. We agree fully with the DEAC’s primary finding that “...the existing Deemed Export Regulatory Regime no longer effectively serves its intended purpose and should be replaced with an approach that better reflects the realities of today’s national security needs and global economy.”

We believe that part this system is failing in part because the list of technologies for which we are trying to regulate knowledge transfer abroad is far too expansive and based upon technological information for which the U.S. no longer has a world leadership position. We look forward to the ETRAC review of the current CCL to determine if there is an identifiable set of emerging technologies with substantial security implications for which deemed export control rules do actually make sense as well as existing technologies that should remain controlled based on revised, realistic criteria.

On behalf of the AAU and COGR, we greatly appreciate this opportunity to provide you with our views and look forward to continuing to engage with you on this matter as the Commerce Department looks to enact significant reforms to current deemed export control policies.

Sincerely,

Robert M. Berdahl  
President  
Association of American Universities

Anthony P. DeCrappeo  
President  
Council on Governmental Relations
IN THIS ISSUE:

<< U.S. Technology Companies in China and New Pathways to "Deemed Export" Compliance

<< Four Steps to Optimizing Business Development Performance

<< XML: An Executive Summary
U.S. Technology Companies in China and New Pathways to "Deemed Export" Compliance

Virtually all AeA member companies today do business in China. Electronics manufacturing has become a vital part of the Chinese economy, especially in and around Guangdong Province and in the Shanghai region. The once-sleepy village of Shenzhen near Hong Kong is now a metropolis with over 1.5 million residents, many of whom work in electronics assembly plants and design centers that are an integral part of American businesses. Moreover, China itself has become a huge sales opportunity for the U.S. electronics industry, including the world’s largest cell phone market with over 300 million users already.

As a source of less expensive skilled technical labor, China is also equally hard for American employers to ignore. For example, according to the IEEE Spectrum (June 2005), an electrical engineer graduating from one of Chengdu’s 29 universities will earn from US$130-400 per month. Such labor cost savings for talented, trained engineers have drawn such firms as Alcatel, Intel, ON Semiconductor and others to locate facilities not only along the better known east coast of China but also in many interior Chinese cities.

However, one “dark lining” in this silver cloud of mutual economic gain is the specter of increased enforcement of U.S. export control laws. AeA members have long dealt with controls on the physical exports of their products from the U.S. to China, and some have also obtained export licenses to send technology or software to China. More recently, the Commerce Department’s Bureau of Industry and Security (BIS), the Homeland Security Department’s Immigration and Customs Enforcement (ICE) and the Justice Department’s Federal Bureau of Investigation (FBI) have all enforced the “deemed export” regulations against companies doing business with China or employing Chinese nationals. Indeed, by an informal survey of reported cases from BIS, ICE and the FBI, it appears that these agencies effectively tripled their collective rate of convictions in such cases from 2004 to 2005.

Under the Export Administration Regulations (EAR), "technology" is defined as any information necessary for the "development," "production" or "use" of a controlled product. Technology or software is "released" for export through:

♦ Visual inspection by foreign nationals (e.g., reading technical specifications, plans or blueprints);
♦ Oral exchanges; or
♦ application under the guidance of persons with knowledge of the technology or software.

Under the EAR, a “foreign national” is any person who is not a U.S. citizen, a person admitted to permanent residence (that is, a so-called "green card" holder) or a "protected
person" (that is, a political refugee or an asylum seeker). Thus, by definition, any Chinese national working in the U.S. on a temporary non-immigrant visa (e.g., H-1B, L-1, etc.) would be such a "foreign national" under the EAR. Thus, any exposure of such a Chinese national to controlled proprietary technology or software could be construed by the BIS, ICE or FBI as a "deemed export."

AeA member companies may encounter many common scenarios in today's growing business and technological contacts between the United States and China that can raise the potential for a "deemed export" situation:

- a Chinese graduate student on an F-1 student visa doing "practical training" with an American employer while studying at an American engineering school and being recruited to work by that employer post-graduation;
- a Chinese technical worker hired by a U.S. employer to work in its Chinese facility but sent for training or orientation at the U.S. employer's American headquarters;
- a Chinese sales manager or technical support/service manager from an independent Chinese distributor who needs training on a U.S. product before taking over that product line in the Chinese market;
- a Chinese public relations consultant seeking sufficient background to enable a U.S. company to launch its new technology product into the Chinese market at a major Chinese trade show;
- a Chinese supplier of key components to be "designed-in" to a next-generation model of a U.S. company's product that needs to have proprietary design specifications in order to develop and manufacture those components;
- a Chinese assembly plant which needs to develop a new assembly line layout and acquire new robotic equipment to assemble a U.S. company's product which needs the proprietary bill of materials and assembly manual for that product; or
- a potential Chinese customer who wants to test a U.S. company's product to see if it can perform a specific operation or can provide a particular kind or level of functionality.

Historically, export control compliance is focused on many AeA companies only in the shipping or sales departments. There exists no normal "pathway" of close coordination and cooperation with other non-traditional parts of companies such as R&D, marketing, manufacturing, supply chain management and HR, who have usually not been trained to the same extent in such compliance procedures. Yet the explosive growth of the Chinese market has caused virtually all these other parts of U.S. companies to have direct and often fast-moving contact with Chinese nationals — as employees, trainees, consultants, distributors, suppliers, fabricators, etc. BIS reports that, in the fiscal year ended September '04, of roughly 1,000 "deemed export" license applications filed by U.S. exporters, nearly 400 or roughly 40% of all such applications pertained to proposed disclosures of controlled technology to Chinese nationals, indicating the scale of activity that required such licenses.

For compliance purposes, U.S. companies with EAR-controlled technology now need to create such new pathways so they can apply the same export control analysis and compliance culture to all these varied scenarios in dealing with Chinese persons, just as if they were making a physical export of their controlled product to China. Obtaining a non-immigrant visa by itself is not a sufficient basis for such Chinese individuals to have access to a company's controlled technology or software if the EAR requires an export license for such a "deemed export" with a Chinese national.

Moreover, permitting such access to the U.S. company's technology without export license may jeopardize both the U.S. company and the Chinese individuals. In the past three years, the Justice Department has sought criminal indictments against both companies and individuals for "deemed export" violations, and such legal proceedings may then also jeopardize or destroy an individual's opportunities for immigration and naturalization under today's tougher post-9/11 immigration regulations.

With China's economy now the second largest in the world (measured in purchasing power parity terms), AeA member companies should address that country in a robust and dynamic way. In doing so, however, they must also take care to ensure that their past efforts in U.S. export control compliance will be extended uniformly across their corporate platforms to embrace the full range of "deemed export" situations involving Chinese nationals.