



Item 21208

Export Control Fundamentals

Introduction

Note: Since February of 2011, this class is assigned to all LANL regular employees, Limited Term, PostDoc, GRA, and UGS employees, it is not automatically assigned to contract employees. Managers are encouraged to manually assign Training Plan 11931, Export Control Policy for Contractors, to contract employees who may be in a position to export. To add a contractor employee to the plan, ask your Training Coordinator to assign *alternate job position #6260* in *UTrain* on the "Alternate Job Positions" tab on the User update screen. Craft workers are not required to take this course.

LANL's Export Policy

The Laboratory is firmly committed to strict adherence to all U.S. export control laws and regulations. This requires that under no circumstances will the export of technology, software, or commodities take place contrary to U.S. export control laws and regulations. See [Director's Commitment Statement \(pdf\)](#) and [P805, Rev. 1 Export Control](#)

Introduction

U.S. export control regulations apply to the export of all [commodities](#) and to the transfer of software and technology to foreign nationals whether within or outside of the U.S. Also, export restrictions apply to property when it is excessed (no longer needed) or transferred from the Laboratory. The intent of the export control regulations is to safeguard national and economic security and prevent the proliferation of weapons of mass destruction by preventing exports inconsistent with national policy.

Approved Laboratory procedures must be followed when Laboratory programmatic goals require export or import of equipment or other material, transfer of technology to a foreign national, or excessing of Laboratory property. These procedures are detailed in the [LANL Export/Import Guide](#).

This training presents an overview of the Laboratory requirements and procedures that all Laboratory personnel should be familiar with. Additional training modules cover in detail the procedures for specific situations. You are required to take all modules that apply to your Laboratory activities.

Circumvention

Any attempt by an employee to circumvent the Laboratory policy (see [P805, Rev. 1](#) and Director's Commitment) for compliance with export control laws and regulations may lead to disciplinary action, up to and including termination. In addition, the Laboratory may decline to provide assistance if an employee encounters legal difficulties as a result of willful noncompliance with the policy. Criminal sanctions of up to \$1,000,000 may be imposed, as well as civil penalties and administrative sanctions, including the seizure of Laboratory equipment or technical data.

Don't Let This Happen To You

In 2004, Dr. John Reece Roth, Professor Emeritus from the University of Tennessee (UT), was hired as a consultant by Atmospheric Glow Technologies (AGT). AGT was a subcontractor on a UT contract with the U.S. Air Force to develop plasma actuator technology. The work was controlled and required licensing for foreign entity participation under U.S. Department of State International Traffic in Arms Regulations (ITAR). As a condition of his employment as the technology transfer officer, Roth asserted in face-to-face meetings and in writing that he was fully cognizant of, and would comply with, all export control requirements.

Roth assigned graduate students to do the actual research and development. When work did not progress as quickly as Roth wanted, he disregarded the rules for the sake of convenience and expediency and assigned foreign nationals from China and Iran to work on it. When the University of Tennessee export officials learned of the violations, they immediately reported Roth to authorities. Colleagues and officials from AGT plead guilty and testified against Roth. As a condition of their plea agreement, AGT was allowed to declare bankruptcy. Their assets were sold off and the company no longer exists. On 3 September 2008, a jury found Roth guilty of eighteen counts of conspiracy, fraud, and illegally exporting technical data and defense services. On July 1, 2009, Roth was sentenced to a term of imprisonment of 48 months as to each count, to be served concurrently. Roth remains released on bond pending appeal

Learning Objectives

Course Objective

This training will provide you with a fundamental understanding of the Laboratory requirements for the export of technology, software and commodities.

Enabling Objectives

At the conclusion of this briefing, you will know:

- who to contact for assistance;
- who controls exports;
- what an export of commodities is;
- what an export of technology is;
- what "deemed export" means;
- what an export of software is;
- the Laboratory's requirements for export of technical data;
- your responsibilities relating to technology exports; and what additional training you must complete.

Export Assistance

The primary Laboratory contacts for assistance with export control procedure are:

- [Export Control](#) for export of commodities and software, imports, and for assistance with export of technology and Lab-developed software; and
- Foreign Visits and Assignments for questions relating to foreign visitors

Who Controls Exports?

The majority of Laboratory exports fall under the regulations of the Department of Commerce (DOC) contained in the Export Administration Regulations (EAR). The State Department controls defense articles and services under the International Traffic in Arms Regulations (ITAR). The ITAR also covers most satellite hardware and technology, guidance systems, some radiation-hardened circuits. The Nuclear Regulatory Commission (NRC) controls exports of commodities related to nuclear reactors, enrichment plants, reprocessing plants, reactor fuel fabrication plants, heavy water production plants and nuclear materials and DOE controls the export of the technology related to the production of special nuclear materials. DOE also controls the export of nuclear weapons design and test equipment.

Significant penalties, both to the Laboratory and to the individual involved may result from failure to comply with these regulations.

What is an Export of Commodities?

To export means to send or take commodities (material and equipment), from the United States to a foreign destination (including Canada and Mexico). Any export of commodities from the Laboratory (including hand-carried items like BlackBerry devices and laptops on foreign travel) must be coordinated through the [Export Control](#) even if you intend to bring the items back with you.

What is an Export of Technology?

The term technology refers to both technical data and technical assistance. Provision of technology to a foreign national that takes place within the U.S. is considered to be an export to the foreign national's country, and is referred to as a "deemed export." (Anyone holding a permanent resident card or "green card" is responsible for following all U.S. export control regulations. Permanent Resident Aliens are considered to be U.S. persons under export control regulations.)

Because the regulations applying to export of technology are complex, Laboratory policies and procedures related to export of technology are also complex. Transferring technical data and providing technical assistance are among the Laboratory's most important activities. Many of the people we have professional interactions with, including Laboratory workers, colleagues from universities or industry, and Laboratory visitors are foreign nationals. It is therefore extremely important that anyone handling technical data or providing technical assistance take *UTrain Course 15238* before transferring technology to anyone. Some highlights of the technology transfer information are presented here:

- Exports of technology can be made via mail, shipment, hand-carry, telephone, face-to-face conversations, electronic mail, facsimile, over the Web, and any other electronic means. Although transfer of technology into the public domain is not an export, such releases must follow the [Laboratory publication process](#).
- Technology can be in the form of printed matter, blueprints, drawings or technical specifications to be sent to foreign entities (including vendors).
- The release of controlled technology for the use (operation, installation, maintenance, repair, overhaul **or** refurbishing) of equipment may also constitute an export. If you release controlled technology to a foreign national for the use of equipment in the U.S., and that equipment would need a license to the foreign national's country, an export license may be required (it would be considered a "deemed export"). Foreign National hosts should list any equipment to be used by the foreign national where controlled technology for the use of that equipment will be released within the DIVA record.
- Publicly available technical data are not controlled by any export control regulations, and may be legally exported to all destinations. However, Laboratory policy requires Division-level approval for export of technical data to certain [embargoed/sanctioned countries](#). Technical assistance based on publicly available data may be controlled by the ITAR.
- Technical data relating to commodities controlled by the EAR that are a result of fundamental research are outside the scope of the regulations; therefore such technical data may be legally exported to all destinations. Laboratory policy requires division leader approval to embargoed destinations. However, the ITAR does not contain this exemption. Technical data that are a result of fundamental research but are related to commodities covered by the ITAR require a license for export. This means that a foreign national must have a license before performing ITAR-related research, even if the intent is to publish the results of the research.
- The export of technology that is neither publicly available nor fundamental research under the EAR *may* require a license for export. Whether a license is required depends upon the specific technology and the recipient country. [Export Control](#) will assist in determining if a license is required and will apply for required licenses. Some examples

of Laboratory technical data which may require an export license are the following: company proprietary data, Protected CRADA Information and data created under a funds-in agreement.

- Unpublished research information on technologies controlled by the ITAR may also require an export license.
- Laboratory policy requires that all exports of technical data resulting from fundamental research and publicly available technical data (mail, email, or fax) bear the marking TSPA (Technical data or Software Publicly Available) to indicate that the sender has considered the export requirements.
- If no technical data are contained in any transmittal leaving the United States it should bear the marking Correspondence to indicate that the sender has considered the export requirements.

The same controls apply whether you are at the Laboratory, or are visiting a University, international user facility, or company located in the U.S. where foreign nationals are present.

All employees and contractors are personally responsible for any technology they export. Laboratory policy requires that for any export of technology that is not outside the scope of the export regulations, the exporter have either the required license obtained by [Export Control](#), license exception or exemption provided by Export Control, or documentation that no license is required.

Even though openly published information is typically exempt from export control, Laboratory policy does not support interaction with the countries listed at:

http://int.lanl.gov/security/export_control/embargoed_countries.shtml Simply put, Government resources shall not be used to reproduce, mail, ship, or email any correspondence, openly published literature, or fundamental research to these countries. That said, rare exceptions may be made if all of the following conditions are met:

- The interaction is not otherwise prohibited by law.
- There is a legitimate, specifically identified programmatic need.
- Explicit Division Leader approval is documented on *Form 1667: Request for Export Control Designation and/or Embargoed Country Approval*.
- A copy of the approved form, along with the information sent (by mail, e-mail or fax), is sent to the Mail Services Team, MS A190, 667-4166, 667-9124(fax)

Note: Of course, transferring any technology even in the form of a casual conversation, e-mail or the like, may constitute an export of technology or providing technical assistance to a foreign national. All technology transfers to a foreign national require approval.

What is an Export of Software?

Software (either source code or executable) is exported when it is transmitted outside the U.S. by any means (e.g., tape, floppy disk, cd, electronic transmission). Use within the US of executable code by a foreign national is not considered an export under the EAR, but access to the source

code is. The ITAR makes no distinction between source and executable code and therefore both are controlled.

No Laboratory software should be distributed outside the Laboratory without following the Laboratory software distribution procedures. Unless software is publicly available, EVERY export of software must be approved by [Export Control](#).

Denied Persons/Entities of Concern

Export approval is based on several factors. They are technology, the country you intend to export to, the end-user (including the entity where the end-user works) and the end-use. The Department of Commerce prohibits exports to certain denied persons and requires an export license for ANY export to entities involved in certain nuclear, missile, chemical and biological, and maritime nuclear propulsion end-uses. These entities include the Bhabha Atomic Research Center (BARC) in India and the All-Union Scientific Research Institute of Experimental Physics (a/k/a Arzamas-16) in Russia, for example.

Laboratory Personnel Responsibilities

Each LANS employee and designated LANL worker is expected to be aware of:

- the existence of export controls,
- why export controls are important,
- situations when export controls apply,
- the existence of additional training modules covering specific areas,
- the availability of detailed procedures in the LANL Export/Import Guide, and
- who to contact for more information.

Each LANS employee and designated LANL worker is responsible for:

- Ensuring that any export of commodities, software/computer code, or technology for which they are responsible is done in accordance with Laboratory policies and procedures.
- Avoiding the inadvertent or unauthorized export of technology to foreign nationals (including unauthorized public release).
- Ensuring that all imports are cleared through U.S. Customs in accordance with all applicable regulations and guidelines.
- Following LANL and DOE guidance for foreign visits and assignments.
- Following LANL and DOE guidance for disposing of or transferring high risk property.

Additional Training

The following training is required by [P805, Rev. 1 Export Control](#):

If you:

You are required to complete:

Ship or Hand-Carry Material or Equipment to a Foreign Country

The online training for shipping/hand-carrying material and equipment to a foreign country **(Course 15236)**

Transfer Technology to a Foreign Country or to a Foreign National in the U.S.

The on-line training for transferring technology to a foreign country or to a foreign national in the U.S. **(Course 15238)**

This shall include sharing information while attending a conference.

Transfer Software to a Foreign Country or to a Foreign National in the U.S.

The on-line training for transferring software to a foreign country or to a foreign national. **(course 15237)**

Import Materials and Equipment

The on-line training for importing materials and equipment. **(Course 15239)**

Host a Foreign National

The on-line training for hosts of foreign nationals. **(Course 15241)**

Export material, software or technology under the ITAR

The on-line training for ITAR (International Traffic in Arms) Regulations **(Course 34965)**

The on-line training for shipping/hand-carrying material and equipment to a foreign country. **(Course 15236)**

Go on Foreign Travel on Laboratory Business

The on-line training for transferring technology to a foreign country or to a foreign national in the U.S. **(Course 15238)**

Note: This includes Canada and Mexico

The on-line training for transferring software to a foreign country or to a foreign national. **(Course 15237)**

Self-Assessment

Introduction

This self-Assessment is just for you to check your own understanding of the material presented in this training module. The answers are not recorded.

1. Before sending a piece of equipment out of the united states, you should check with:
 - o Classification Office
 - o Export Control
 - o Department of Commerce
 - o Department of State
 - o All of the Above
2. Which of the following may constitute an export of technology?

- A conversation with a foreign national on assignment to your group about the design details of a satellite sensor.
 - Presenting a technical paper at a conference in the United States.
 - Taking a technical Laboratory report with you on foreign travel.
 - All of the Above
3. For assistance with export control procedures for sending technical data out of the United States, you should check with:
- Classification Office
 - Export Control
 - Department of Commerce
 - Department of State
 - All of the Above
4. Which of the following may require an export license?
- [a] Sending a published report to a French university
 - [b] Hosting a foreign national to work in your Group
 - [c] Carrying a Laboratory piece of equipment with you on foreign travel that you intend to bring back with you
 - All of the Above
 - [b] and [c] Above.
5. Which does NOT constitute an export of software?
- Transmitting source code over e-mail to Canada
 - Hand-carrying software on a floppy disk on foreign travel
 - Allowing a foreign national to use EAR-controlled executable code at LANL
 - All of the Above
 - None of the Above
6. Additional training is required for you to:
- Host a foreign national
 - Hand-carry equipment with you on foreign travel
 - Import material or equipment
 - Transfer technology to a foreign national at LANL
 - All of the Above

Conclusion

If you have any questions about exports, please don't hesitate to contact **Export Control** at export@lanl.gov or call **665-2194**.

For course content questions or other course-related questions, please contact [Sarah Maynard](#).

Request Credit

By requesting credit for this training, I acknowledge that I have read and understand the content of this training and I will follow and meet the requirements of this training unless it is unsafe to do so.