



PERMANENT MEMORANDUM 45 COMPLIANCE WITH EXPORT CONTROL REGULATIONS

POLICY DIGEST

Monitoring Unit: Office of Research & Economic Development

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I. PURPOSE

Export controls and trade sanctions are the U.S. laws and regulations that regulate and restrict the release of critical technologies, software, equipment, chemical, biological materials and other materials, and services to foreign nationals and foreign countries for reasons of foreign policy and national security.

The University recognizes these laws apply to virtually all fields of science and engineering and restrict the shipment, transmission, or transfer of certain commodities, software, technology, and services from the United States to foreign countries. Deemed exports, i.e., the release of controlled information to foreign nationals, even if located in the United States, are also restricted under these laws and regulations. Export control laws apply to all activities, not just sponsored research projects.

Several federal agencies have jurisdiction over the control of exports, including the Department of Commerce, the Department of Energy, the Department of State, the Department of Treasury, the Nuclear Regulatory Commission, and the U.S. Department of Agriculture. The three principal agencies among these are the Department of State, which administers controls of defense exports through its Directorate of Defense Trade Controls (DDTC); the Department of Commerce, which administers export of commercial, “dual-use,” and less sensitive defense items and technologies through the Bureau of Industry and Security (BIS); and the Department of Treasury, which administers exports to embargoed countries and specially designated nationals through its Office of Foreign Assets Control (OFAC). It is important to remember that meeting the export requirements of one of these agencies alone is not sufficient, and the applicability of all these regulations to a specific activity should be evaluated to ensure full compliance with the U.S. export control regulations. The regulatory environment for export controls in the United States is complex and changing. Therefore, it is important to check the current regulations before engaging in any export-controlled activities.

The purpose of this permanent memorandum is to define export control and related terms, comply with federal export control laws and regulations, establish responsibility for export control compliance, and institute related policies and procedures.

II. DEFINITIONS

Even common words have very specific meanings within the export control laws. The following are some commonly used terms:

A. **Bona Fide Employee Exemption** – A provision under the Fair Labor Standards Act that

exempts certain employees classified as “bona fide executive, administrative, or professional” from the law's minimum wage and overtime requirements, meaning they are not entitled to overtime pay if they work more than 40 hours a week, provided they meet specific job duty and salary threshold criteria set by the Department of Labor.

- B. **Commerce Control List (CCL)** – List of items under the export control jurisdiction of the Bureau of Industry and Security of the Department of Commerce. The CCL is found in Supplement 1 to Part 774 of the Export Administration Regulations (EAR, defined below). The CCL is divided into ten categories: (0) Nuclear Materials, Facilities and Equipment, and Miscellaneous; (1) Materials, Chemicals, "Microorganisms," and Toxins; (2) Materials Processing; (3) Electronics Design, Development, and Production; (4) Computers; (5) Telecommunications; (6) Sensors; (7) Navigation and Avionics; (8) Marine; (9) Propulsion Systems, Space Vehicles, and Related Equipment. Every CCL category is subdivided into the same five groups, designated by the letters A through E, as follows: (A) Equipment, assemblies, and components; (B) Test, inspection, and production equipment; (C) Materials; (D) Software; and (E) Technology.
- C. **Consolidated Screening List** – This is a list of combined information that must be used to check for compliance purposes that is updated and maintained by the Commerce, Treasury, and States Departments and is consolidated for ease of screening.
- D. **Deemed Export** – Whenever a foreign national on U.S. soil (or abroad) may be exposed to or is able to access in any manner export-controlled technology or software (EAR) or technical data required for the development, production, or use of controlled articles, or performance of a defense service (ITAR). EAR citation is 15 CFR § 734.2(b). ITAR citation is 22 CFR § 120.17. Deemed exports do not include the mere transfer or access to controlled articles or materials without any associated information. It is “deemed” to be an export to the home country of the foreign entity or individual. Deemed exports may occur through such means as a demonstration, oral briefing, or plant visit, as well as the electronic transmission of non-public information or software.
- E. **Deemed Re-Export** – The release of controlled technology by a foreign national who has been licensed to receive it to the national of another foreign country who has not been licensed to receive the controlled technology. For example, ECCN 5E001 technology (for the development, production, or use of software) may be exported to a university in Ireland under the license exception for technology and software but might require a deemed re-export license authorization before being released to a Russian foreign national student or employee of that university in Ireland.
- F. **Defense Article** – Any item designated in the U.S. Munitions List. These items consist of articles which are specifically designed, developed, configured, adapted, or modified for military application and related technical data. Examples include specified chemical agents, cameras designated for military purposes, specified lasers, and some GPS equipment and any directly related technical data. (ITAR 120.6)
- G. **Defense Service** – Providing of assistance (including training) anywhere (inside the United States or abroad) to foreign persons in connection with the design, development, engineering, manufacture, production, or use of a defense article, and the furnishing of any related technical data. (ITAR 120.9) The Bona Fide Employee Exemption does not apply to where the employee

will be provided a Defense Service.

- H. **Debarred Parties List** – List of individuals denied export privileges under ITAR and maintained by the State Department.
- I. **Denied Persons List** – A list of persons who have been issued a denial order from the Commerce Department's Bureau of Industry and Security (BIS). U.S. exporters and third parties in general are prohibited from dealing with these persons in transactions involving U.S. items.
- J. **Dual-Use** – Items that have both commercial and military or proliferation applications. While this term is used informally to describe items that are subject to the EAR, purely commercial items are also "subject to the EAR" (see §734.2(a) of the EAR). Items with no specific ECCN are designated as "EAR99."
- K. **Educational Information** – Under the EAR, information taught in course catalog courses and teaching laboratories associated with these course catalog courses are not export controlled. (Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion. 15 CFR § 734.9.) Under the ITAR, information or software concerning general scientific, mathematical, or engineering principles commonly taught in universities or information in the public domain are not subject to export controls. 22 CFR §§ 120.10-11.
- L. **Entity List** – Exports to foreign end-users engaged in proliferation activities are usually prohibited without a license. These are administered on a case-by-case basis.
- M. **Export** – Includes any of the following: 1) Actual shipment of any covered goods or items; 2) The electronic or digital transmission of any covered goods, items, or related goods or items; 3) Any release or disclosure, including verbal disclosures or visual inspections, of any controlled technology, software, or technical data to any foreign national; or 4) Actual use or application of controlled technology on behalf of or for the benefit of any foreign entity or person anywhere.
- N. **Export Administration Regulations (EAR)** – Regulations promulgated and implemented by the Department of Commerce that regulate the export of "dual use" goods, software, and related technology. This includes items identified on the Commodity Control List (CCL), 15 CFR § 774, Supplement 1, as well as restrictions on exports to specified persons, entities, countries, and end-uses.
- O. **Export Control Classification Number (ECCN)** – Identifies the Commerce Control List classification and related export requirements of commodities, software, and technology subject to the export licensing authority of the Department of Commerce, Bureau of Industry and Security. All commodities, software, and technology subject to the EAR not specifically identified on the CCL are classified as "EAR99."
- P. **ECO** – Export Control Officer
- Q. **Foreign National** – Under the EAR, means any person who is not a citizen or permanent resident of the United States. Under the EAR, the term applies to "persons lawfully admitted for permanent residence in the United States and does not apply to persons who are protected

individuals (i.e., has been admitted as a refugee or granted asylum).” The term also refers to foreign entities.

- R. **Foreign Person** – The ITAR uses the term “foreign person” rather than “foreign national” and it applies to any natural person who is not a lawful permanent resident or who is not a “protected individual,” and may also include any corporation, business association, partnership society, trust, or any other entity, organization, or group that is incorporated to do business in the United States. This also includes any governmental entity.
- S. **Fundamental Research** – Under the EAR and the ITAR, fundamental research means basic or applied research in science and engineering performed or conducted at an accredited institution of higher learning in the United States where the resulting information is ordinarily published and shared broadly in the scientific community. Fundamental research is distinguished from research that results in information that is restricted for proprietary reasons or national security reasons (EAR) or pursuant to specific U.S. government access and dissemination controls (ITAR).
- T. **Fundamental Research Exclusions** – EAR provides that University research normally will be considered as fundamental research unless the University or its researchers accept personnel access restrictions or restrictions on publication of scientific and technical information resulting from the project or activity. The EAR specifically permits limited prepublication reviews by research sponsors to prevent inadvertent divulging of proprietary information provided to the researcher by the sponsor or to ensure that publication will not compromise any patent rights. The EAR citation is 15 CFR § 734.8. The ITAR states that University research will not be deemed to qualify as fundamental research if: (1) The University or its researchers accept any restrictions on publication of scientific and technical information resulting from the project or activity; or (2) The research is federally funded and specific access and dissemination controls protecting information resulting from the research have been accepted by the University or the researcher. The ITAR citation is 22 CFR § 120.11(8). Note: Under the EAR and ITAR, even if no publication restriction exists, the fundamental research exclusion does not apply to the physical export of goods.
- U. **Good** – Any article, natural or man-made substance, material, supply, or manufactured product, including inspection and test equipment, and excluding technology.
- V. **International Traffic in Arms Regulations (ITAR)** – 22 CFR §§ 120-130, are the regulations promulgated and implemented by the Department of State which regulate defense articles and defense services and related technical data listed on the U.S. Munitions Control List (USML), 22 CFR § 121.
- W. **Lists to Check** – All transactions with potential export restrictions should be checked against the published lists of prohibited countries, persons, and entities before proceeding.
- X. **Principal Investigator (PI)** – The lead researcher for a scientific research grant or clinical trial. They are responsible for the design, execution, and reporting of the research.
- Y. **Public Domain** – Under the ITAR, information that is published and that is generally accessible or available to the public is not export controlled. Examples include: (a) sales at newsstands and bookstores; (b) subscriptions that are available without restriction to any individual who

desires to obtain or purchase the published information; (c) second class mailing privileges granted by the U.S. government; (d) libraries open to the public or from which the public can obtain documents; (e) published patent applications and issued patents; (f) unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the public, in the United States; (g) any public release after approval by the cognizant U.S. government agency; and (h) fundamental research in science and engineering at accredited institutions of higher learning in the United States where the resulting information is ordinarily published and shared broadly in the scientific community. This is distinguished from research of which the results are restricted for proprietary reasons or specific U.S. government access and dissemination controls. University research is not considered fundamental research if: The University or its researchers accept other restrictions on publication of scientific and technical information resulting from the project or activity; or, the research is funded by the U.S. government and specific access and dissemination controls protecting information resulting from the research are applicable. 22 CFR § 120.11.

- Z. **Publicly Available** – The EAR uses the term “publicly available” rather than “public domain.” Under the EAR, information is publicly available when it becomes generally accessible to the public. In addition to the examples listed above, the EAR specifically provides that software that is available for general distribution is publicly available (except for encryption software with symmetric key length exceeding 64 bits). 15 CFR § 734.7.
- AA. **Re-Export** – An actual shipment or transmission of items subject to export regulations from one foreign country to another foreign country. For the purposes of the EAR, the export or re-export of items subject to the EAR that will transit through a country or countries to a new country, or are intended for re-export to the new country, are deemed to be exports to the new country.
- BB. **Sanctioned Country** – Even when exclusions to EAR or ITAR apply, U.S. Treasury Department, Office of Foreign Assets Control may prohibit payment, travel, and the transfer of items, assets, and services of value to sanctioned nations.
- CC. **Specially Designated Nationals (SDN)** – Any person who is determined by the U.S. Secretary of the Treasury to be a specially designated national for any reason under regulations issued by the Office of Foreign Assets Control. U.S. persons are prohibited from having transactions with the persons listed in the Specially Designated Nationals List.
- DD. **Technical Assistance** – Technical assistance may take forms such as instruction, skills training, working knowledge, consulting services, and may also involve the transfer of technical data.
- EE. **Technical Data** – Information required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of controlled articles. This includes information in the form of blueprints, drawings, plans, instructions, diagrams, and photographs. These may take the form of blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, or read-only memories. The ITAR definition does not include information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, or information in the public domain, general system descriptions, or basic marketing information on function or purpose. (ITAR

120.10).

FF. **Technology** – Any specific information and know-how (whether in tangible form, such as models, prototypes, drawings, sketches, diagrams, blueprints, manuals, software, or in intangible form, such as training or technical services) that is required for the development, production, or use of a good. The information takes the form of technical data or technical assistance. See definition of “**use**” under the EAR below.

GG. **Technology Control Plan (TCP)** – A document that outlines how to protect and manage sensitive or export-controlled technology, data, and software. TCPs are used to ensure that only authorized people have access to these items.

HH. **Use** – (Under the EAR) – Operation, installation (including on-site installation), maintenance (checking), repair, overhaul, and refurbishing of a good.

III. GENERAL POLICY

An export is:

- A. The shipment of a controlled commodity, equipment, material, or software outside of the United States;
- B. Disclosing controlled technology or technical data to a foreign national, whether in the United States or abroad (which are considered a “deemed” export to the foreign national’s home country); and/or
- C. Performing technical assistance or defense services for or on behalf of a foreign national, whether in the United States or abroad.

This policy outlines the compliance obligations of members of the University community when engaged in the export of certain materials or technology as defined herein.

IV. FEDERAL LAWS AND REGULATIONS

- A. Three U.S. Government agencies have primary export control regulatory responsibilities:
 - 1. The Department of Commerce through its Export Administration Regulations (EAR). The Commerce Department administers the Commerce Control List (CCL).
 - 2. The State Department through its International Traffic in Arms Regulations (ITAR) and the Arms Export Control Act (AECA). The State Department administers the U.S. Munitions List (USML).
 - 3. The Treasury Department through the Office of Foreign Assets Control (OFAC) administers the export control laws and trade sanctions.

Mechanism	Governing Department	Covers
EAR	Commerce	Dual-use goods, technology, chemicals, and software
ITAR	State	Military items; space-related technology and research
OFAC	Treasury	Trade prohibitions with sanctioned countries/entities

- B. The U.S. Government controls exports on a case-by-case basis, examining four factors: the destination; the good, software, technology or service; the end-user; and its end-use.
- C. EAR and ITAR apply to the transfer of specific physical items and information and the provision of specific services to persons and entities *outside* the United States (exports) and to the disclosure of specific information and the provision of specific types of services to foreign nationals even *inside* the United States (deemed exports).
- D. OFAC regulations restrict transactions with embargoed and sanctioned countries, persons, and organizations involved in terrorism, drug trafficking, and proliferation of weapons of mass destruction. Even when exclusions to the EAR or ITAR apply, OFAC may prohibit payment, travel, and the transfer of items, assets, and services of value to sanctioned nations.
- E. Regulated Items:

1. ITAR Controlled Items

- a. The Department of State Directorate of Defense Trade Controls (DDTC) administers export control of defense items under the International Traffic in Arms Regulations, 22 CFR §§ 120- 130, pursuant to the Arms Export Control Act (AECA). Three terms are used to designate export-controlled ITAR items: “defense articles,” “technical data,” and “defense services.” An item that also contains any ITAR controlled component, then, is also controlled under the ITAR.
- i. *Defense Article* means any piece of equipment (or component or part thereof), or technical data (as defined below), that is specifically designed, developed, configured, adapted, or modified for a military, missile, space, satellite, or other controlled use listed on the USML.
- ii. *Technical Data* means any information which is required for the design, development, assembly, production, operation, repair, testing, maintenance, or modification of a defense article. Technical data may include drawings or assembly instructions, operations and maintenance manuals, and email or telephone exchanges where such information is discussed. However, technical data does not include general scientific, mathematical, or engineering principles commonly taught in universities, information in the public domain, general system descriptions, or basic marketing information on function or purpose.

iii. *Defense Services* means:

- (a) The furnishing of assistance (including training) to foreign persons, whether in the United States or abroad, in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing, or use of defense articles;
- (b) The furnishing to foreign persons of any technical data controlled under this subchapter (see 22 CFR §120.10), whether in the United States or abroad; or
- (c) Military training of foreign units and forces, regular and irregular, including formal or informal instruction of foreign persons in the United States or abroad or by correspondence courses, technical, educational, or information publications and media of all kinds, training aid, orientation, training exercise, and military advice.

b. Definition of Export Under the ITAR

- i. *The ITAR defines the term 'export' broadly. The term applies not only to exports of tangible items from the United States but also to transfers of intangibles, such as technology or information. The ITAR includes the release of controlled technical data to foreign nationals, even in the United States.*

c. Authorization to Export

- i. Any U.S. person or entity that manufactures, brokers, or exports defense articles or defense services must register with the Directorate of Defense Trade Controls (DDTC) and secure a license prior to any export. Excluded from these regulations are activities limited to the creation of unclassified technical data, or the fabrication of defense articles for experimental or scientific purposes, including research and development. LSU does not engage in the manufacturing of defense articles.

2. Items Subject to the EAR

- a. The Department of Commerce Bureau of Industry and Security regulates the export of commercial products, software, and technology under the Export Administration Regulations (EAR), 15 CFR §§ 730-774. The EAR covers a wider range of products and technology, the product classification process is highly technical, and most importantly, the need for a license depends not only on the type of product but on its final destination.
- b. Generally, most items of U.S. origin, or physically located in the United States, are subject to the EAR. Foreign manufactured goods are generally exempt from the EAR re-export requirements if they contain less than a *de minimus* level of U.S. content by value. The EAR requires a license for the exportation of a wide range of items with potential 'dual' commercial and military uses, or which are otherwise of strategic value to the United States (but not made to military specifications). However, only items listed on the Commerce Control List (CCL) generally require a license prior to exportation. The items are designated by "ECCNs."

i. Export Control Classification Number (ECCN)

Goods, software, and technology on the CCL are primarily commercial in nature, not military. (Items that have primarily military application are covered under ITAR.) The CCL categorizes the goods and related technology covered into ten topical categories. Items are further designated by Export Control Classification Numbers (ECCNs). Items not assigned a specific ECCN fall under a catch-all category called "EAR99."

c. Items not assigned an ECCN are designated as "EAR 99" and can generally be exported without a license, unless the export is to an embargoed country, or to a prohibited person or end-use. Items are further organized into 5 groups as follows:

i. *Commodities* means finished or unfinished goods ranging from high-end microprocessors, to airplanes, to ball bearings.

ii. *Manufacturing Equipment* includes equipment specifically for manufacturing or testing controlled commodities, as well as certain generic machines, such as computer numerically controlled manufacturing and test equipment.

iii. *Materials* includes certain alloys and chemical compounds.

iv. *Software* includes software specifically associated with particular commodities or manufacturing equipment, as well as any software containing encryption and the applicable source code.

v. *Technology* means information required for the development, production, or use of a good, and takes the form of technical data and technical assistance. For some ECCNs, there may be a distinction between technology for the "use" of a product and the technology for the "design" or "manufacture" of the product.

3. The fundamental difference between the EAR and ITAR is that the EAR is concerned with "dual use" items (items designed for potential commercial purposes that can have military applications) and the ITAR with those that are inherently military in nature. Another difference is the treatment of fundamental research. In the ITAR, is it subsumed under "public domain" and in the EAR it is a separate and distinct category. In general, the EAR is clearer and more specific in its coverage than the ITAR.

4. The majority of exports do not require government licenses. Barring a prohibited end use or user, only certain commodities, software, and technology require a license for export. An export license is usually required for one of the following reasons:

a. The nature of the export has actual or potential military applications or economic protection issues;

b. Government concerns about the destination country, organization, or individual;

c. Government concerns about the declared or suspected end use or the end user of the export.

5. Even if an item appears on lists of controlled items, there may be exemptions, exclusions, or exceptions that apply, such as the exclusion for “fundamental research.” For research to be considered “fundamental research” there cannot be personnel access restrictions or publication restrictions that apply.
6. The following high-risk types of academic study have been designated for particular focus for export control compliance at the University: Engineering (including Physics), Space Sciences, Research with Lasers, Research with Encrypted Software, and Research with Controlled Chemicals, Biological Agents, and Toxins.
7. The following are factors to consider in determining the applicability of export regulations:
 - a. Is the activity considered fundamental research? (Will research results be published and publicly available?)
 - b. Is the activity limited to teaching or instructional activities?
 - c. Is there a physical export of a good?
 - d. Are foreign nationals restricted from participating in the activity?
 - e. What is the item’s Export Control Classification Number (ECCN) or U.S. Munitions List (USML) category?
 - f. Where is it going (country)?
 - g. Who is the end-user (person or entity)? What is the intended end use?
 - h. Are you screening for persons or entities identified on any lists of sanctioned or barred persons or entities?
 - i. Is a license required? If so, is enough time allowed to secure one?
 - j. Will the activity involve a sanctioned or embargoed country?
8. The University will assist any member of the University community in complying with export control laws and trade sanctions, including securing licenses from U.S. government agencies, where appropriate. However, the primary responsibility rests with the faculty member or researcher as the individual most informed about the contemplated project and the technical nature and properties of the goods, software, and technology. Violation of export control laws and sanctions could result in individual criminal and civil penalties; therefore, it is critical that faculty and researchers understand and adhere to export control laws and regulations.

Faculty and other researchers are responsible for:

- a. Knowing classification of and export compliance requirements for the equipment, software, chemicals, materials, and technology they intend to ship or carry outside of the United States;

- b. Knowing whether the proposed research project will be subject to export control restrictions due to publication or other dissemination restrictions or personnel access restrictions;
- c. Knowing the classification of and export compliance requirements for company proprietary information they receive under a confidentiality obligation;
- d. Having an effective security plan to protect export-controlled information in their possession, taking into account foreign nationals under their supervision;
- e. Complying with all export control requirements that apply to physical shipments, including proper shipping permits and making (Automated Export System) AES filings;
- f. Making export control analysis (including screening for sanctioned or embargoed persons, entities, and countries) prior to foreign travel, sponsoring foreign visitors at the University, engaging in research with foreign collaborators, engaging in research sponsored by foreign persons, or conducting research in foreign countries.

9. Other Federal Laws

- a. In addition to export control laws, select agents and toxins are also regulated by the Centers for Disease Control and Prevention and the U.S. Department of Agriculture. However, these materials are not exclusively regulated by the CDC and USDA. Shipments of these agents outside of the United States require an export license even where transfer exceptions may be available under select agents and toxins regulations.
- b. Other activities are exclusively regulated by other laws and agencies. Examples include the Nuclear Regulatory Commission, the Department of Energy, the Food and Drug Administration, and the Drug Enforcement Administration, and those laws and regulations must be consulted and complied with.

V. ROLES AND RESPONSIBILITIES

The University is committed to assisting the University researchers in complying with export control laws and regulations. Export control staff at respective LSU institutions will work with researchers and other University offices to ensure compliance with export control regulations.

- A. Principal Investigators (PIs) have the best understanding of their research and play the primary role in developing and directing all research projects (funded internally and externally). Therefore, PIs have the best information as to whether the particular technology, data, or information involved in that research is or may be covered by export control regulations. PIs also make decisions regarding equipment or technology and to whom it is transferred. Because there is a high penalty for non-compliance with export control regulations, it is critical for PIs to understand these regulations and work with University administrators to evaluate technical aspects of export-controlled items, technology, or data.

The PI is responsible for the following:

1. Reviewing available University information on export regulations.
 2. Determining whether there may be any export control issues to address before preparing a proposal or beginning any research.
 3. Communicating with University administration if any export control issues are identified or if any questions arise about export regulations.
 4. Cooperating with the ECO in developing Technology Control Plans (TCPs) and applying for licenses and following the TCP to ensure compliance with all applicable restrictions.
 5. Adhering strictly to any applicable restrictions and cooperating fully with University administration and the respective sponsored programs office efforts to monitor compliance when export control regulations apply.
 6. For externally funded projects, notifying the sponsored programs office as soon as any change is necessary for work on a controlled project, such as a change in the scope of work or the addition of new staff.
 7. When conducting outside consulting activities, export control compliance is the responsibility of the PI.
- B. Export regulations require attention to several considerations in a university setting. Considerations and subsequent actions depend on evaluation of the recipient, the destination, involvement of controlled technology, and governmental jurisdiction to determine how the regulations apply and whether a license must be obtained. Most activities conducted at the University are likely to qualify for license exclusions for information that is publicly available or in the Public Domain, such as the Educational Information Exclusion and the Fundamental Research Exclusion. Otherwise, an export license may be required to allow for participation by foreign nationals or for foreign research collaborations.
- C. Key Issues in University Activities:
1. Fundamental Research Exclusion (FRE)
 - a. The term “fundamental research” means basic or applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community. Fundamental research is distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons. Both the ITAR and EAR provide that information resulting from fundamental research is not subject to export controls. This is referred to as the Fundamental Research Exclusion (FRE).
 - b. Specifically, the EAR provides that the Fundamental Research Exclusion applies so long as the University and its researchers do not accept restrictions on publication of scientific and technical information resulting from the project or activity, or personnel access restrictions. The EAR specifically permits customary prepublication reviews by research sponsors to prevent inadvertent divulging of proprietary information provided to

the researcher by the sponsor or to ensure that publication will not compromise any patent rights. The EAR citation is 15 CFR § 734.8. Access and dissemination controls in government contracts with national security agencies normally do not trigger a license requirement as long as the University otherwise follows any national security controls imposed in the contract (15 CFR § 734.11(a)).

- c. By comparison, the ITAR states that University research will not be deemed to qualify as fundamental research if: the University or its researchers accept any restrictions on publication of scientific and technical information resulting from the project or activity; or, the research is federally funded and specific access and dissemination controls protecting information resulting from the research have been accepted by the University or the researcher. The ITAR citation is 22 CFR § 120.11(8).
- d. The sponsored programs staff at respective LSU institutions carefully reviews proposed research projects to ensure the scope of the work qualifies for the Fundamental Research Exclusion. If further reviews are needed, the respective sponsored programs office contacts the ECO for export control analysis, with the technical assistance of the PI.
- e. Verbal or written *side deals* between a PI and sponsor to forego publication will invalidate the FRE and violate University policies that require that research shall be conducted openly and without prohibitions on the publication and dissemination of the results.
- f. Under the EAR and ITAR, even if no publication restrictions or personnel restrictions apply, the Fundamental Research Exclusion does not apply to the physical shipment of goods.
- g. The use of sponsor or third-party trade secrets or other proprietary information in a research project which are subject to a confidentiality obligation will continue to be subject to export controls even though the research and the research results are covered by FRE. The EAR citation is 15 CFR § 734.8(b)(4).
- h. A deemed export may occur if information, which is not otherwise publicly available, about the development, production, or use of controlled articles is released to a foreign national. "Use" in this context means information about the operation, installation, maintenance (checking), repair, overhaul, **and** refurbishing of a controlled article per EAR Part 772. All six aspects of use must be present to cause an export to occur. When instruction on use is based on a publicly available manual, the instruction is considered publicly available and not subject to the EAR.

2. Educational Information Exclusion

- a. One of the most important exclusions from the EAR and ITAR export regulations that is the exclusion for educational information. Under the EAR, information and software taught in course catalog courses and teaching laboratories associated with these course catalog courses are not export controlled. (Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion.) 15 CFR § 734.9.

- b. Under the ITAR, information or software concerning general scientific, mathematical, or engineering principles commonly taught in universities or information in the public domain are not subject to export controls. 22 CFR §§ 120.10–11.

3. Publicly Available Information/Public Domain

- a. All information that is publicly known is also not subject to export controls (except encryption software with symmetric key length exceeding 64 bits). Under the ITAR, information that is published and that is generally accessible or available to the public is said to be in the “public domain” and not export controlled. Examples include: Sales at newsstands and bookstores; subscriptions that are available without restriction to any individual who desires to obtain or purchase the published information; second class mailing privileges granted by the U.S. government; libraries open to the public or from which the public can obtain documents; published patent applications and issued patents; unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the public, in the United States; any public release after approval by the cognizant U.S. government agency; and fundamental research in science and engineering at accredited institutions of higher learning in the United States where the resulting information is ordinarily published and shared broadly in the scientific community. 22 CFR § 120.11.
- b. The EAR uses the term “publicly available” rather than “public domain.” Under the EAR, information is publicly available when it becomes generally accessible to the public. In addition to the examples listed above, the EAR specifically provides that software that is available for general distribution is publicly available (except for encryption software with symmetric key length exceeding 64 bits). 15 CFR § 734.7.

4. ITAR- Full-Time University Employees

- a. The ITAR allows the University to disclose unclassified technical data in the United States to a foreign person who is the University’s bona fide and full-time regular employee. This exemption typically precludes foreign students and postdocs, and generally an H1B work visa would be required. The exemption is only available only if: the University employee’s permanent abode throughout the period of employment is in the United States; the employee is not a national of a country where exports are prohibited pursuant to 22 CFR § 126.1; the University informs the individual in writing that the technical data may not be transferred to other foreign persons without prior written approval of the DDTC; and the University documents the disclosure of the technical data under the exemption providing a description of the technical data, the name of the recipient/ end-user, the date and time of export, the method of transmission. 22 CFR § 125.4(b)(10).
- b. *Note: This exemption only applies to the transfer of technical data and discussions related to the data. Discussions may occur between the foreign full-time employee and other University employees working on the project.*

5. Physical Exports

- a. For commercially available goods, please contact the manufacturer to obtain the ECCN

of the product in question. If a physical export is necessary, a sequential analysis should begin with jurisdiction determination and then the classification process. The researcher is typically the best person to assist with the determination of the Commerce Department ECCN classification of the item. An alphabetical guide to the Commerce Control List can be found on the BIS website to help with the classification.

- b. Using the ECCN, it must be determined whether an export license is required. You are also required to know your customer and evaluate how the export will be used. The lists of barred or prohibited countries, persons, and entities must be checked in the vetting process. For shipment of items subject to the EAR, you must check whether General Prohibitions 4-10 apply per 15 CFR § 736. If any 'red flags' are indicated, the concerns must be addressed satisfactorily, or the shipment should be aborted. In some instances, license exceptions may apply. The ECO can help make these determinations. The process may include submitting requests to ship materials outside of the United States as well as having the end user submit end user certifications to the Export Control staff at respective LSU institutions. A reputable freight forwarder should be engaged to complete the shipment and file all appropriate documentation.
- c. For exports requiring a license and all shipments of goods having a value greater than \$2,500, an AES filing with the U.S. Census Bureau must be filed. The filing must indicate the applicable ECCN and the license number or license exception that applies. Contact the ECO for assistance with this process.

6. Deemed Exports

- a. While exports are commonly associated with the physical shipment of materials across a U.S. border, export controls are much broader. They also include the transfer of technology or software, technical data, or performance of defense services to foreign nationals even when the transfer takes place within the United States. This transfer is "deemed" to be an export. The issue of deemed exports is particularly relevant for university environments where students and faculty engage globally in teaching and research activities together. In many instances, the requirements of the export control laws can be appropriately satisfied through reliance on available exclusions from export controls, such as exclusions for educational information, and exclusions for information that is publicly available or in the public domain, including the Fundamental Research Exclusion. The University is committed to ensuring these exclusions are relied upon and satisfied. For example, with respect to fundamental research, it is the policy of the University that research shall be conducted openly and without prohibitions on the publication and dissemination of the results, unless specifically authorized by the ECO after evaluation and implementation of a suitable TCP.
- b. A "deemed export" under the ITAR involves the export within the United States to a foreign person of technical data, in other words information or software, required for the development, production, or use of defense articles included in the USML. Technical data does not include information or software concerning general scientific, mathematical, or engineering principles commonly taught in universities, information in the public domain, general system descriptions, or basic marketing information on function or purpose. A deemed export under ITAR also includes performing a defense service on behalf of a foreign person.

- c. A “deemed export” under the EAR involves the export within the United States to a foreign national of technology or software required for the development, production, or use of a good. Importantly, information about “use” must include all the following to constitute a deemed export: operation, installation, maintenance (checking), repair, overhaul, **and** refurbishing. EAR Part 772. If the foreign national has access only to the technology that is necessary to operate the export-controlled equipment, a release of “use” technology has not occurred. Further, the deemed export rule does not regulate the mere operation of controlled equipment.
- d. Deemed exports could occur through such means as a demonstration, oral briefing, or plant visit, as well as the electronic transmission of non-public information or software. Specific reference must be made to the relevant ECCN because what constitutes “technology” can vary. For example, in the case of select agents, “technology” includes information about disposal of the materials under ECCN 1E351. Technology and software that are not subject to the EAR would be excluded from export regulation, such as publicly available technology.

7. Supercomputers

- a. A common deemed export question relates to access by persons in the LSU community to supercomputers (designated by their adjusted peak performance or APP under Category 4 of the CCL). This is an example where mere access to, or operation of a supercomputer, does not constitute a deemed export.

8. Encryption Software and Technology

- a. Faculty and students who work with encryption software and technology have a particularly complex compliance framework to maneuver within. As referenced above, encryption software (as well as associated technology) with symmetric key length exceeding 64 bits generally does not satisfy the exclusions on which universities ordinarily rely, including the educational information exclusion or the publicly available or public domain exclusion. However, there are recognized Department of Commerce clarifications and specific license exceptions that do apply.
- b. As part of the federal government policy efforts to promote data security through encryption protections imbedded in mass market software products, it is permissible, while in the United States, for non-U.S. persons to use any publicly available (in other words, sold on the retail market) software containing encryption source code or object code. The Department of Commerce makes this clear in its policy statements.
- c. Also, under License Exception Encryption Commodities, Software, and Technology (ENC), non-U.S. persons who are employees, contractors, or interns employed at LSU facilities can use encryption software (covered by ECCNs 5D002 and 5D992) with no license or prior government review required. This includes work developing or producing new products per 15 CFR § 740.17(a)(2). In addition, special exemptions apply to certain kinds of encrypted medical end-use software and to temporary physical exports of tools of trade.

- d. With respect to the physical shipments of software, under the EAR License Exception Technology and Software - Unrestricted (TSU), encryption source code or object code (covered by 5D002) may be exported without a license except to Iran, Cuba, North Korea, Syria, or Sudan. 15 CFR § 740.13. However, determining the applicability of the TSU exception is complex and the ECO should be contacted for help with the analysis.
- e. Special exemptions apply to teaching encryption techniques. Encryption technology that is publicly available (in other words, published in books or sold on the retail market), including technology covered by ECCNs 5E002 and 5E992, are not subject to the EAR. Therefore, publicly known encryption techniques and schemes may be shared and taught to non-U.S. persons within the United States (sharing of encryption software is a separate analysis). However, providing encryption technology controlled under 5E002 to students may require a license if it is provided with the specific intent to aid in the development of commodities or software controlled under 5A002 or 5D002. See License Requirement Note to ECCN 5E002.

9. Restricted Party Screening Lists

Various U.S. government agencies maintain a number of lists of individuals or entities barred or otherwise restricted from entering into certain types of export, trade, and financial transactions with U.S. persons. Researchers should use these lists to ensure they do not engage in a transaction with a barred entity or person. Also, the Consolidated Screening list is available in a downloadable file that consolidates export screening lists of the Departments of Commerce, State, and the Treasury (described below) into one spreadsheet as an aide to industry in conducting electronic screens of potential parties to regulated transactions.

- a. *EAR Denied Persons List*. These are individuals and entities that have had their export privileges revoked or suspended by BIS.
- b. *EAR Entity List*. These are entities identified as being involved in proliferation of missile technology, weapons of mass destruction, and related technologies.
- c. *Specially Designated Nationals and Blocked Persons List (SDN List)*. Maintained by OFAC, this is a list of barred terrorists, drug traffickers, and persons and entities associated with embargoed regimes. Generally, all transactions with such persons are barred.
- d. *Arms Export Control Act (AECA) List of Debarred Parties*. The Department of State bars certain persons and entities from engaging in the export or re-export of items subject to the USML.
- e. *Unverified List*. These are foreign persons and entities for which Department of Commerce has been unable to verify the nature of their operations. While transactions with these entities are not barred, special due diligence is required.

10. Supplier Classification of Items

- a. When, during research activities, LSU receives materials or technology from a sponsor

and the PI cannot determine whether export controls apply, the ECO will contact the sponsor for export jurisdiction and classification information. If necessary, the sponsoring company is asked to identify the types of materials involved and provide the ECCN.

11. Anti-Boycott Violations

- a. U.S. persons are prohibited by the anti-boycott laws of the United States from participating in unsanctioned foreign boycotts. While seldom, this problem can arise in the process of contracting with foreign entities or countries. Examples include agreements to discriminate based on national origin or nationality and agreements to refuse to do business with Israel or any specific country. Contracts (including any oral requests) having those provisions violate Louisiana law, are not accepted by LSU and are referred to the ECO for review and any required reporting under 15 CFR § 760.5 using form BIS-621-P, and IRS form 5713.

12. International Travel

- a. When traveling abroad, University researchers should be familiar with export control regulations. Researchers need to make sure that any information discussed, or items taken out of the United States, are either not controlled, or if controlled, the proper licenses are in place. Researchers, as individuals, and the University can be held liable for improperly transferring controlled technology. The greatest risk of transferring controlled technology is traveling with or accessing a company's export-controlled information outside of the United States, as most, if not all, of University-developed technology qualifies for an exemption. In the rare case where faculty and researchers are approved to have access to company or government export-controlled technology, they will be actively informed of their duties in their TCP, including the prohibition of not traveling outside of the United States with the export-controlled data. Thus, it is important to review and understand the federal requirements. Prior to discussing technology or making a presentation when traveling, verify that the technology, information, and/or commodity qualifies for an exclusion. Please note that the exclusions do not apply to controlled goods shipped or carried outside of the United States.
- b. Be aware that more than one license may be required for some travel. For example, travel to an OFAC embargoed country would require a license issued by the Treasury Department. An EAR license may be required as well depending on whether an export of controlled technology (information) is anticipated. Time to obtain a license varies from weeks to months. Please take time and plan ahead for license approval delays.
- c. Exclusions that are relevant for researchers when traveling include:
 - i. Published Information and Software – Information that is generally accessible to the public through publication in books or periodicals, or information presented in the United States at a conference, meeting, seminar, trade show, or other open gathering (members of the general public are eligible to attend and attendees are permitted to take notes) is considered to be in the public domain. Software available from a website and accessible to the public is also considered to be publicly available.

(Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion.)

- ii. Educational Information – Course material taught in U.S. universities in course catalog classes and information that is in the public domain fall within the educational information exception. (Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion.)
- iii. Information or technology developed by University personnel under the fundamental research exclusion; specifically, where there was no agreement to restrict publication or foreign national access restrictions.
- d. Special care should be taken of computers that contain non-commercial, special purpose, or certain encryption software. These items could be subject to seizure or customs duties and could pose a threat if stolen. (See discussion above under “Encryption Technology.”) If you need to travel with such items, an export review should be performed and, if necessary, a license obtained prior to travel, and it should be completed well ahead of expected travel dates. Before initiating travel, the following questions should be considered to evaluate whether export regulations apply:
 - i. Do you plan to take any information or technology that is controlled (highest risk is company/government-controlled technology)?
 - ii. Do you plan to travel to an embargoed destination?
 - iii. Are you taking any biological materials? Identify the material(s).
 - iv. Are you taking any equipment with you other than those identified as Tools of the Trade under the export regulations?

If the answer to any of these questions is 'yes,' contact the ECO for assistance.

13. Technology Control Plans

- a. The purpose of a Technology Control Plan (TCP) is to outline security procedures used by the University for the protection of information and material identified or determined to be export controlled. Technology Control Plans must be developed and submitted for review and approval for any research that involves export-controlled items, technology, or data. The purpose is to identify authorized personnel and develop a physical and IT security plan to protect and control research information from access by unauthorized persons. Once the TCP is in effect, no personnel can be added to that project or facility without the prior approval of the ECO. The development of the TCP is a mandatory precursor to an application for a deemed export license or technical assistance agreement. The TCP will also establish what controls will continue upon completion of the project.
- D. The sponsored programs office at the respective LSU institution is responsible for all extramural proposal submissions, accepts and administers grant awards, and negotiates contracts and other research- related agreements on behalf of the University. The sponsored

programs office is responsible for reviewing all research contracts for terms or provisions that might restrict access to or publication of research and technical data, set limits on personnel, or otherwise render inapplicable the exclusion for fundamental research or publicly available information.

VI. TRAINING

Individuals subject to export controls regulations may be required to complete training regarding current export controls regulations. Online training is available from the Department of Commerce at the Bureau of Industry and Security (BIS) website as well as other online training platforms (e.g., CITI).

VII. LICENSING INFORMATION

- A. No matter how 'benign' an item may appear, it still may require a license to export or release to foreign nationals. In addition, some destinations and persons (individuals or groups) are subject to comprehensive export controls, including controls on all manner of consumer products.
- B. A license may also be needed to "re-export" an item that was produced or originated in the United States. A "re-export" is the shipment or transmission of an item subject to the EAR from one foreign country to another foreign country. A re-export also occurs when there is "release" of technology or software (source code) that is subject to the EAR in one foreign country to a national of another foreign country.
- C. The Commerce Department is responsible for licensing dual use items. The regulations on the export of goods and related technology are identified on the Commodity Control List (CCL), Title 15 CFR § 774, Supplement 1. (The State Department is responsible for licensing items with military applications.)
- D. The following general questions can be used to help determine whether an activity may require a license:
 - 1. Is the person a U.S. citizen or permanent resident (issued a green card)?
 - 2. Is the information already published (for example on the Internet or in public libraries)?
 - 3. Is it educational information covered in a course catalog course?
 - 4. Is the technology disclosed in a published patent application or an issued patent?
 - 5. Is the research considered fundamental research that will be published?
 - 6. What is the jurisdiction and classification of the product – is it EAR 99, or something else?
 - 7. Does a license exclusion or exemption apply?

If none of the above apply, a license may be required.

- E. If an activity is controlled under the export regulations, then a license or other approval is needed from the respective oversight agency unless an exemption or exception applies. Examples of situations where a license may be required include:
1. Research that involves defense, military, weapons, or space technologies;
 2. Export of a commodity or good outside of the United States;
 3. Attending a conference where registration is limited to U.S. citizens;
 4. Attending a conference outside of the United States;
 5. Activities where export control exceptions do not apply;
 6. Transfer of technical data about a controlled technology to a foreign national in or outside of the United States;
 7. Providing anything of value to someone from a sanctioned country, on the entity list, denied persons list, debarred (or excluded) parties list, or any other restricted list.
- F. When exclusions or exceptions do **not** apply (or if the transaction involves dealings with a sanctioned entity or country), then a license must be obtained for any deemed export, export, or re-export **prior** to the transfer of any information.
- G. The following information is then needed to determine whether the U.S. origin product requires a license:
1. *Export Control Classification Number (ECCN)*. Certain items, notably those controlled by multilateral export control regimes, are on the Commerce Control List (CCL) (15 CFR § 774) and are included under a specific ECCN. The ECCN in the CCL will also tell you the reason(s) for control. An item can be 'self-classified' with justification or BIS can also assist with classification when necessary. Contact the ECO for assistance if necessary. Items not listed on the CCL are designated as EAR99 items and generally can be exported without a license, unless the export is to an embargoed country, or to a prohibited person or end-use.
 2. *The ultimate destination of the item*. The reason(s) for control listed in ECCNs on the CCL (15 CFR § 774) needs to be matched with the country of ultimate destination in the Country Chart (15 CFR § 738). The reason(s) for control, when used in conjunction with the Country Chart, will help to determine if a license is required to the ultimate destination. If it is determined that your export transaction requires a license, review the EAR to determine if any License Exceptions are available (15 CFR § 740).
 3. *The end-user and end-use for the item*. Even if determined that a license is not required based on the ultimate destination (or a license is required but a License Exception would generally apply), a license may be required because of the specific end-use or end-user. These are referred to under the regulations as the "General Prohibitions" and are found at 15 CFR § 736. There are certain special restrictions that apply to persons (or entities) identified in the EAR, as well as to persons who are involved in nuclear weapons proliferation activities or chemical or biological weapons activities. In most instances, a

license is required to persons identified in 15 CFR § 744 for the export or re-export of all items subject to the EAR (i.e., all items on the CCL and all items classified as EAR99). There are certain end-uses that are prohibited. An end-user certification form may need to be completed by the end user to assist in the determination process.

VIII. RECORDKEEPING

- A. The University must comply with the various record keeping requirements of the EAR and ITAR and related laws and regulations. This is generally (and preferably) done by providing documents to the ECO in cases where an export control determination is to be made, but in most cases, the documents shall be retained by the affected unit or individual having specific responsibilities outlined in this manual. The export control records that are retained and secured include any licenses, license applications, policies, manuals, forms and guidelines, memoranda, notes, correspondence, screens, contracts, financial records, shipping documents including bills of lading and Shipper's Export Declarations, and Automated Export System (AES) records on international shipments. Records to be submitted to the ECO for vetting include exclusion and exemption analyses, certificates, audit/review check sheets and reports, and the export control clearance forms. Records are to be maintained for a period of five years from the expiration date of the authorization or date an exemption is claimed.
- B. Training records are also to be maintained by the individual receiving the training for a period of five years from the date of training. Thereafter, the records shall be discarded consistent with the LSU record retention policy.
- C. Note that the information which meets the criteria of being in the public domain, educational information, or resulting from fundamental research is not subject to export controls under the ITAR. Therefore, the special requirements for recordkeeping when using an exclusion, exception, or exemption may not apply. However, it is a good practice to retain such a description for each project to establish a record of compliance.
- D. If ITAR-controlled technical data or items are to be exported under an exemption, certain records of the transaction must be kept even beyond the five year record retention period (see 22 CFR §§ 122.5 and 123.6). These records include:
 - 1. A description of the unclassified technical data;
 - 2. The name of the recipient/end user;
 - 3. The date/time of export;
 - 4. The method of the transmission (e.g., email, fax, telephone, FedEx); and
 - 5. The exemption under which the export took place.

IX. DETECTING AND REPORTING VIOLATIONS

A. Commitment to Reporting

- 1. An integral part of export compliance is that employees report suspected violations of

export laws, and these suspected violations are thoroughly investigated. The University is committed to voluntarily self-disclose violations in accordance with federal regulations. Members of the University community are expected to contact the ECO should they have any questions about the application of the export control laws to their research or other activities. University faculty, administrators, staff, and students should report any potential violations to their ECO. No employee shall be punished on the basis that he or she reported what was reasonably believed to be an act of wrongdoing or a violation of the export control laws.

B. Investigation

1. Once an alleged violation has been reported, an investigation will be initiated to determine the validity of the allegation and an appropriate response.

C. Government Subpoenas

1. In the event any subpoena or other request for documents is received from any federal agency, immediately contact the LSU Office of the General Counsel and ECO for an appropriate and timely response. Likewise, if a federal agency representative arrives on campus, immediately contact the Office of the General Counsel. However, do not interfere with or obstruct any federal agent or law enforcement officer in the performance of his/her duties.

X. PENALTIES

There are severe civil and criminal penalties, including fines and imprisonment, for violating the export control laws and trade sanctions and both the organization and the individuals involved are subject to these penalties. The University and the individual(s) involved may also lose their ability to export. The University may be suspended or debarred from government contracting. The criminal and civil penalties for unlawful export and disclosure of information in violation of U.S. export control laws and trade sanctions include the following, depending on the items involved and the jurisdiction:

- A. *EAR*: Criminal violations by the University can incur penalties up to \$1,000,000 for each willful violation. For individuals, these penalties can reach up to \$1,000,000 or 20 years imprisonment, or both, per violation. Civil penalties for both the University and individuals can reach up to \$250,000 per violation, or two times the value of the export, whichever is greater. These violations can also result in a denial of export privileges as well as other potential collateral penalties.
- B. *ITAR*: Criminal violations can result in penalties of up to \$1,000,000 per violation and 10 years imprisonment for individual willful violations. Civil penalties imposed upon departments, agencies, and officials can reach up to \$500,000 per violation. A person or university found to be in violation of *ITAR* (Arms Export Control Act) can be debarred from contracting with the government and could lose their export privileges.
- C. *OFAC*: Penalties will range depending upon the sanction regime in question. Criminal violations by the University can result in penalties of up to \$1,000,000 per violation, and criminal penalties for individuals can reach \$1,000,000 or 20 years in prison, or both. Civil penalties can be imposed up to \$250,000 per violation, or two times the transaction in question, whichever is

greater.

XI. SOURCES

[Bureau of Industry and Security website](#)

[Code of the Federal Regulations \(CFR\)](#)

[Commerce Control List \(CCL\)](#)

[Export Administration Regulations \(EAR\)](#)

[International Traffic in Arms Regulations \(ITAR\)](#)