



University of California, Merced

EXPORT CONTROL COMPLIANCE MANUAL

Updated 1/20/2022

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Overview of Export Controls Regulations

Introduction

This manual is designed to assist you in complying with U.S. export controls. If you have any questions regarding the material contained in this Export Compliance Program Manual, please contact the University of California, Merced Export Controls Office at exportcontrols@ucmerced.edu.

Export Control laws are a complex set of federal regulations designed to protect United States (U.S.) national security; to prevent the proliferation of weapons of mass destruction; to further U.S. foreign policy including the support of international agreements, human rights and regional stability; and to maintain U.S. economic competitiveness. The export control regulations govern how information, technologies, and commodities can be transmitted overseas to anyone, including U.S. citizens, or to foreign nationals in the U.S. In addition to controlling exports to countries or individuals who are citizens of or located in those countries, the export control regulations ban exports to individuals and companies that have been involved in terrorist or drug trafficking activities as well as those who are barred from conducting exports because of previous violations of the export control laws.

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 Asset Controls (**OFAC**).

Export Control Laws at UC Merced

The export control laws apply to many activities at UC Merced that you might not expect. For example, just entering into a contract with people listed on certain government lists, or sending money to certain countries, may require a license from the U.S. government. Other examples include: shipping certain items, such as high powered unmanned aerial vehicles (UAVs or drones) from campus to certain foreign destinations, research supplies to a field site outside the U.S., or biologic samples to an international collaborator at a foreign university, might involve complying with the export control laws.

Universities in the United States, including UC Merced, have a long tradition of inventing and developing leading-edge technologies that are important for national security and economic competitiveness as well as for education and training scholars from around the world. In recognition of this role, both the Department of State and Department of Commerce export control laws carve out special provisions whereby unrestricted research and classroom teaching activities at university in the U.S. may be excluded from the regulations. The *University of California's Academic Personnel Manual (APM)*, precludes the acceptance of restrictions on publication of research results or of sponsorship that would compromise the university policy on non-discrimination.¹ As a result, most research activities at UCM will be “fundamental research” as defined in the export control laws, and as a result, not require a “license” or permission from the government, and be exempt from the laws in most cases. Nonetheless, it is important to understand the limits on fundamental research in the context of the applicable export control regulations. Fundamental research is further discussed on page 12 of this manual.

The U.S. export control agencies place the burden of understanding and complying with the regulations on the exporter.² Even though most research conducted on campus will not be subject to export control restrictions, it is important for the university community to be aware when activities potentially become controlled. The export control laws may apply to research activities on campus if controlled equipment, data, or information is used in the conduct of that research. It is incumbent upon UC Merced researchers to verify what, if any, information is export controlled, and to prevent the dissemination of such information to foreign parties in the US or abroad. This may be particularly challenging in the conduct of collaborative research with other institutions. The export control regulations apply to the export (even temporary) of controlled University owned equipment for field research and to the shipment of research materials or equipment to locations outside of the United States.

The following brief descriptions of the export control laws are meant to provide an overview of the regulations as they impact activities at UC Merced. Determining which, if any, of the regulations apply to the particular project is complex; the Export Controls Office will work closely with researchers to make that determination and, when necessary, seek a determination from the relevant agencies.

¹ University of California, The Contract and Grant Manual. Available at: <https://www.ucop.edu/research-policy-analysis-coordination/resources-tools/contract-and-grant-manual/index.html>.

² See GAO Report “Export Controls: Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Universities:”, December 2006, available at <http://www.gao.gov/assets/260/254189.pdf>

Department of State Regulations (ITAR)

Regulatory Authority and Scope

The Arms Export Control Act (AECA), 22 U.S.C. § 2778 grants authority to the President of the U.S. to designate and control the export and import of defense articles and services. Presidential executive order 11958 delegates this responsibility to the Secretary of State. The Department of State Directorate of Defense Trade Controls (DDTC) administers this authority through implementation of the International Traffic in Arms Regulations (ITAR), 22 C.F.R. §§ 120-130.

The ITAR contains the United State Munitions List (USML), which includes defense articles and related technical data that are controlled for export purposes. In addition to the defense article or related technical data, constituent parts and components of the defense article are controlled under the ITAR. For example, military aircraft are on the USML, as are their engines, electronic controls, and inertial navigation systems, even though such components may have other applications. If a commodity contains a part or component that is controlled under the ITAR, such as a controlled inertial navigation system, then that commodity is also controlled under the ITAR, regardless of whether or not that commodity has an inherently military purpose. Thus, an autopilot system used in basic robotics research at UC Merced may be controlled under the ITAR.

Many items designed for military use are also used for research completely unrelated to that military use. One example at UC Merced, is the use of infrared cameras. These specific items are controlled under the ITAR even though they are not being used in any military activity. It is important to understand that the ITAR designation is unrelated to UC Merced's use of a controlled item.

Important ITAR Definitions

In order to understand the requirements of the ITAR it is important to understand terminology specific to the regulation such as "defense article," "technical data," and "defense service." Additionally, it is important to understand how the ITAR defines "fundamental research" and "public domain" information. Additional definitions can be found in Appendix 4.

Defense article is defined in [22.C.F.R. § 120.6](#). It means any item or technical data that was or will be specifically designed, developed, configured, adapted, or modified for a controlled use listed on the USML. In addition to the items on the USML, models or other items that reveal technical data related to USML items are also considered to be defense articles.

Technical Data is defined in [22.C.F.R. § 120.10](#). Technical data includes information required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or

modification of defense articles. This information includes blueprints, drawings, photographs, plans, instructions and documentation. ITAR technical data also includes classified information relating to defense articles and defense services, information covered by an invention secrecy order and software directly related to defense articles.

Defense Service is defined in [22 C.F.R. § 120.9](#). The definition includes furnishing of assistance, including training, to a foreign person, whether in the U.S. or abroad, in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles. It also includes providing any foreign person any technical data as defined above. It is important to note that defense services may apply even if the information being furnished is in the public domain.

Public Domain is defined in [22 C.F.R. § 120.11](#). Public domain information is information that is published and generally accessible or available to the public. The ITAR describes means by which public domain information might be rightfully available, which in addition to libraries, subscriptions, newsstands and bookstores, include published patents and public release at conferences, meetings and trade shows in the United States where those venues are generally accessible to the public. Posting ITAR-controlled technical data to the Internet does not automatically make it public domain, and may represent an illegal export.

Fundamental Research is defined to mean basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research where the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. The ITAR considers fundamental research in science and engineering at accredited institutions of higher learning in the U.S. to be in the [public domain](#), and, therefore, no export license would be needed to export the resulting information abroad, or share it with foreign nationals in the United States. However, University research will not be considered fundamental research if: (i) The University or its researchers accept other restrictions on publication of scientific and technical information resulting from the project activity, or (ii) the research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable. It is important to note that fundamental research applies only to the information generated, and not to any tangible technology created in the process.

The USML Categories

The USML defines 21 classes of defense articles. The USML is found at 22 C.F.R. § 121. In the interest of brevity, only the main headings of the USML categories are listed here. For detailed descriptions of what is included in each category, the ITAR may be accessed on line at

https://www.pmddtc.state.gov/?id=ddtc_kb_article_page&sys_id=24d528fddbfc930044f9ff621f961987.

Note that category XXI is reserved for use by DDTC for controlling new technologies under the ITAR.

- | | |
|-------|--|
| I | Firearms, Close Assault Weapons and Combat Shotguns |
| II | Guns and Armament |
| III | Ammunition/Ordnance |
| IV | Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines |
| V | Explosives and Energetic Materials, Propellants, Incendiary Agents, and Their Constituents |
| VI | Surface Vessels of War and Special Naval Equipment |
| VII | Ground Vehicles |
| VIII | Aircraft and Related Articles |
| IX | Military Training Equipment and Training |
| X | Personal Protective Equipment |
| XI | Military Electronics |
| XII | Fire Control, Laser, Imaging, and Guidance Equipment |
| XIII | Materials and Miscellaneous Articles |
| XIV | Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment |
| XV | Spacecraft Systems and Related Articles |
| XVI | Nuclear Weapons Related Articles |
| XVII | Classified Articles, Technical Data, and Defense Services Not Otherwise Enumerated |
| XVIII | Directed Energy Weapons |
| XIX | Gas Turbine Engines and Associated Equipment and Associated Equipment |
| XX | Submersible Vessels and Related Articles |
| XXI | Articles, Technical Data, and Defense Services Not Otherwise Enumerated |

Exporting Under the ITAR

An export as defined under the ITAR includes sending or taking a defense article out of the United States, disclosing (including oral or visual disclosure) technical data to a foreign person whether in the U.S. or abroad, or performing a defense service on behalf of a foreign person whether in the U.S. or abroad. (See 22 C.F.R. § 120.17 for a complete listing of export meaning under the ITAR.) **This definition is extremely broad. It includes taking controlled technical data out of the United States on a laptop computer, regardless of whether or not that information is viewed or accessed while abroad. It also includes allowing a foreign person to view or use a defense article in the United States. Most exports of defense articles and defense services must be licensed by DDTC.**

Generally, a U.S. person that manufactures, brokers, or exports defense articles or services must be registered with DDTC. Registration is required prior to applying for a license or taking advantage of some license exemptions. Registered entities may apply for licenses, or permission, to export defense articles and defense services. DDTC reviews license requests on an individual basis and consults with other agencies, such as the Department of Defense, in consideration of the request. Exports of ITAR-controlled items are prohibited to some countries and individuals. DDTC country policies may be found at https://www.pmddtc.state.gov/?id=ddtc_public_portal_country_landing.

Commodity Jurisdiction

The DDTC has the authority to determine if an item or technology falls within the scope of the ITAR or if the item/technology is under the jurisdiction of the Department of Commerce for the purposes of export controls. While it is possible to self-classify an item, the DDTC must be consulted if there is any doubt as to whether an article or service is subject to the ITAR. **At UC Merced, the Export Control Office will assist with the submission of commodity jurisdiction requests as well with the determination of any export licensing requirements.**

ITAR License Exemptions and Exclusions

While strict, the ITAR has specific license exemptions which permit the permanent or temporary export of defense articles and technical data by U.S. persons in lieu of obtaining an export license from the DDTC. These exemptions are authorizations that cover very specific situations and have specific requirements. An important exemption to universities such as UC MERCED is the Bona fide, full-time employee exemption³ (also known as the BFE). The BFE allows for disclosure of unclassified technical data in the United States by U.S. institutions of higher learning to foreign persons who are bona fide and full time regular employees of that institution. The exemption also requires that the foreign national has a permanent residence in the United States during the period of employment and is not a national of a country to which exports are prohibited. The term “bona fide and full time regular employee” does not apply to student employees, and most universities find that only H-1B visa holders meet the criteria of the exemption.

As previously discussed, a license is not needed to export information that is already found in the public domain. Information released in connection with catalog-listed courses at a university is excluded from ITAR export controls. This includes information released during lectures, instruction in teaching laboratories and inclusion in course materials, as long as the information has already been rightfully

³ Full text of [§125.4\(b\)10](#)

published in the public domain. Additionally, information and technology is not controlled if it is part of fundamental research, defined to mean “basic and applied 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 within the scientific community.

Department of Commerce Regulations (EAR)

Regulatory Authority and Scope

The EAR controls the export of “dual-use” items, which are items that have civilian uses but that may also have military or other strategic applications. Common, real-life examples from UC Merced include certain chemicals, process design kits (PDKs), and oceanographic sensors, as well as laboratory equipment such as centrifuges, analyzers, and fabrication equipment, such as milling machines and etching equipment for electronics. These items are classified on the Commerce Control List (CCL). The CCL is organized into 10 different categories, items and their related technology are assigned Export Control Classification Numbers (ECCN), which describe how the item or technology is controlled. Items and technology that fit into any of those categories but are not assigned a specific ECCN are classified as EAR99. Few export restrictions typically apply to EAR99 items; however, these items may not be transferred to a sanctioned country without a license. An ongoing export reform initiative will result in less sensitive military items being moved from the ITAR to the EAR.

Many activities are not subject to the EAR. In addition to activities subject to the exclusive authority of another agency, e.g., the export of a defense article that is controlled under the ITAR, the EAR lists several exclusions from the regulations. These include published information, information resulting from fundamental research, educational information, and the export or reexport of items with less than *de minimis* U.S. content (where applicable). It is important to understand the definitions and limitations of each of these exclusions in order to correctly evaluate their applicability to specific activities.

Important EAR Definitions and Concepts

Export is defined in [15 C.F.R. § 732.2\(b\)](#) as an actual shipment or transmission of items subject to the EAR out of the U.S. as well as the release of technology or software subject to the EAR in a foreign country or to a foreign national either in the U.S. or abroad.

Deemed Export is defined in [15 C.F.R. § 732\(b\)\(ii\)](#). A deemed export is any release of technology or source code subject to the EAR to a foreign national, regardless of location. The release is deemed to be an export to the home country or countries of the foreign national. For the purposes of the EAR, legal

U.S. permanent residents, naturalized citizens, and individuals protected under the Immigration and Naturalization Act (8 U.S.C. § 1324b(a)(3)), are not considered to be foreign nationals.

Reexport means an actual shipment or transmission of items subject to the EAR from one foreign country to another foreign country. For example, a research sample might be sent to collaborators in the UK, but then reexported to researchers in Israel, a country with more significant export restrictions. Analysis of export licensing requirements must consider the final end user, including any reexports. It also means the release of technology or software subject to the EAR to a foreign national outside the United States (**deemed reexport**). Reexport is defined in 15 C.F.R. § 732(b)(4).

De Minimis U.S. content is the amount of U.S. content, as determined by percentage of value of the U.S. content in the end item, required to make a foreign produced item subject to the EAR. For some items, there is no *de minimis* content, meaning that any U.S. content will make the foreign-produced item controlled under the EAR. For other items the *de minimis* U.S. content for foreign produced items may be 10% or 25% of the total value. See [15 C.F.R. § 734.4](#) for a complete discussion of the *de minimis* U.S. content rules.

Published Information and Software is defined in [15 C.F.R. § 734.7](#). Information is published when it is accessible to the interested public in any form.⁴ Publications may take the form of periodicals, books, print, electronic media, public web sites, or any other media available for general distribution. General distribution may be defined as available to an interested community, such as a technical journal available to scientists in a relevant field, so long as the price charged for the publication does not exceed the cost of reproduction and distribution. Articles submitted to journals for consideration for publication are considered to be published, regardless of whether or not they are accepted. Published information also includes information readily available in libraries (including university libraries), as well as patents and published patent applications. Finally, release of information at a conference *open to the participation of all technically qualified persons*, is considered to be publication of that information. Software is published when it is available for general distribution either free or at the cost of distribution. *However, strong encryption software remains controlled, regardless of general availability.*

⁴ Published information and software under the EAR differs from the ITAR in regarding most material subject to the EAR to be publically available once rightfully posted to a public website. Similarly, the ITAR requires that information already be published to be considered in the public domain, whereas for the EAR, information that has been, or is about to be, published is considered published information.

Fundamental Research is *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 . . .* The complete definition and discussion of fundamental research, including University based research is found at [15 C.F.R. § 734.8](#). University research is considered to be fundamental to the extent that researchers do not accept restrictions on the publication of scientific and technical information resulting from the research. Temporary delays in publication for the protection of sponsor proprietary information do not remove research from the fundamental domain. However, if that sponsor's proprietary information is subject to the EAR, then that information remains subject in the conduct of the research. **UC Merced researchers receiving proprietary information from corporate research sponsors should consult the export compliance office to ensure compliance with the EAR in the conduct of the related research.**

Educational Information is defined in [15 C.F.R. § 734.9](#). Educational Information is information released as part of a course listed in the University's course catalog, and through instruction in the classroom or teaching laboratory. Participation in the course should be open to any qualified student enrolled at the academic institution. For example, participation by UC MERCED international students in a university graduate course on design and manufacture of very high-speed integrated circuitry will not be subject to export controls, even though the technology is on the CCL. **The key factor is the fact that the information is provided by instruction in a catalog course.**

As long as the course material is subject only to the EAR (and not ITAR), foreign students from any country may enroll in a course. Course activities are exempt from the controls, even if the course contains recent and unpublished results from laboratory research, so long as that research qualifies as fundamental research.

The Commerce Control List

The Commerce Control List (CCL) may be accessed [online](#). Items included on the CCL are assigned an export control classification number (ECCN) based on a category and product group. There are 10 categories, numbered 0 – 9, and five product groups, labeled A – E, within each category. The category and product group generally describe the item being classified, and the remaining three digits of the ECCN relate to the item specifications. An ECCN follows the nomenclature of “#α###”, where the first “#” is the category, “α” is the product group, and “###” identifies the reason for control. As an example,

an Unmanned Aerial Vehicle (UAV) with the ability to maintain flight for 30 to 60 minutes has an ECCN of 9A012, where as an UAV with the capability of autonomous flight control has an ECCN of 9A120. In general, “###” with lower numbers are controlled to more destinations than those with higher numbers.

The categories and product groups are as follows:

Commerce Control List Categories	
0	Nuclear and Miscellaneous items
1	Materials, Chemicals, Microorganisms, and Toxins
2	Materials Processing
3	Electronics
4	Computers
5 (Part 1)	Telecommunications
5 (Part 2)	Information Security
6	Sensors and Lasers
7	Navigation and Avionics
8	Marine
9	Aerospace and Propulsion

Commerce Control List Product Groups	
A	Systems, equipment and components (finished or unfinished goods)
B	Test, inspection and production equipment (manufacturing equipment)
C	Material
D	Software
E	Technology

The EAR export licensing regime is much more complex than that of the ITAR. Under the EAR, licensing requirements for export activities depend on what is being exported, the export destination, who will be using it, and what it will be used for. ECCN entries include a listing of the reasons for control that can be used in determining if an export license is necessary. While the most common controls are for anti-terrorism and national security, many other potential controls exist. The complete list of controls is found in 15 CFR§ 742.

License Exceptions

While the CCL is much more extensive than the USML, many fewer licenses are required for items controlled under the EAR than under the ITAR. This is because of the many license exceptions that may be available for EAR controlled exports. It is important to understand that there are limitations on the use of license exceptions (see [15 C.F.R. § 740.2](#)), and that the use of a license exception may have an

associated recordkeeping and notification requirement. More than one license exception may be available for a proposed activity. In such cases, the use of the exception with the fewest restrictions on use and least notification and recordkeeping requirements minimizes compliance burden. Members of the UC Merced community should consult with the export compliance office when making decisions as to the applicability of EAR license exceptions for proposed export activities.

A complete listing of EAR license exceptions may be found in [15 C.F.R. § 740](#). Exceptions commonly applicable to members of the UC MERCED community travelling abroad are BAG, which applies to personally-owned items taken abroad for personal use while abroad, and TMP, which applies to the temporary export of UC MERCED-owned equipment, including laptop computers and other equipment listed on the CCL, for work-related activities. These activities include professional presentations, teaching, and field research. It is important to note that there are limitations on the use of the TMP license exception; items must be returned to the U.S. within one year of export, or if not returned, documentation of disposal is required. Items exported using the TMP license exception must be kept under the effective control of the traveler while abroad. Additionally TMP is not applicable to some restricted locations, such as Cuba.

Commodity Classification

BIS encourages exporters to use the detailed descriptions in the CCL to identify the potential ECCN of items to be exported. However, in the event of an incorrect classification, the exporter is liable for any resulting violations of the EAR and may be subject to penalties. Self-classification may be particularly difficult in the university environment where cutting edge-research pushes the boundaries of existing technologies, and in fact may not precisely meet the technical specifications as described in the existing CCL listings. Members of the UC MERCED community who need assistance with classifying items should contact the Export Controls Office. When unsure about a self-classification, the university may submit the item/technology to BIS for a formal classification.

Anti-Boycott Restrictions

The Anti-Boycott provisions of the EAR were designed to address foreign governments' boycotts of countries friendly to the U.S. The provisions were first implemented in response to the Arab League Boycott of Israel. Arab countries including Kuwait, Lebanon, Libya, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen have been known to impose boycott restrictions on Israel and companies that do business with Israel. Companies, as well as individuals, are "blacklisted" under boycott.

The anti-boycott provisions are found in [15 C.F.R. § 760](#). The provisions apply to any person or entity in the U.S. as well as to U.S. persons or entities abroad and specifically prohibit the following activities:

- Agreement to refuse or actual refusing to do business with a boycotted country or with blacklisted persons
- Agreement to discriminate or actual discrimination against other persons based on race, religion, sex, national origin, or nationality (for example, agreeing to refuse to hire Israeli nationals)
- Providing information about race, religion, sex, or national origin of another person
- Furnishing information about business relationships with boycotted countries or blacklisted persons (for example, providing information about current or previous business in Israel)
- Furnishing information about membership concerning associations with charitable and fraternal organizations
- Paying or otherwise implementing letters of credit containing prohibited conditions or requirements.

Exceptions to these prohibitions exist but are very limited. Additionally, U.S. persons asked to engage in the prohibited activities are required to report the request to BIS. If you encounter any boycott language in a UC MERCED activity or contract, please contact the Export Controls Office or University Counsel for assistance in determining whether an exception is applicable and if reporting to BIS is required.

Department of Treasury Regulations – Office of Foreign Asset Controls (OFAC)

Regulatory Authority and Scope

The Office of Foreign Asset Controls (OFAC) administers and enforces economic and trade sanctions based on U.S. foreign policy and national security interests. Many of the sanctions are based on United Nations and other international mandates. Sanctions are country/program specific, and are subject to frequent change based on the changing geo-political landscape. In addition to foreign countries and regimes, OFAC imposes sanctions on individuals, such as people the U.S. government deems to be terrorists and narcotics traffickers. The implementing regulations for the OFAC sanctions are found in [31 C.F.R. §§ 500-599](#), the Foreign Asset Control Regulations.

The OFAC sanctions broadly prohibit most transactions between a U.S. person and persons or entities in an embargoed country or who have been declared specially designated nationals (SDNs). They prohibit importation and exportation of goods and services as well as related financial transactions or engaging in business activities with SDNs. As of early 2016, OFAC sanctioned countries include the Balkans, Belarus, Burma/Myanmar, Cote d'Ivoire, Cuba, the Democratic Republic of Congo, Iran, Iraq, Lebanon, the Former Liberian Regime of Charles Taylor, Libya, North Korea, Somalia, Sudan, Syria, and Zimbabwe. Additional activity-based sanctions programs include Counter Narcotics Trafficking, Counter Terrorism, Non-Proliferation, and Transnational Criminal Organizations sanctions as well as the Rough Diamond Trade Controls. The activity-based sanctions programs are implemented through the designation of individuals engaging in the banned activities as SDNs. Updated lists of sanctioned countries are available online.

OFAC Licensing for Country Based Programs

It is important to review the specific sanctions program before conducting activities with an OFAC-sanctioned entity or person, or in an OFAC-sanctioned country. The individual sanctions specifically describe what activities are exempt from the embargo (for instance personal communications, exchange of informational materials, etc.) as well as what activities may be permitted under either a general or specific license. Activities which that are permitted under a general license do not require specific permission from OFAC prior to engaging in the activity; however, the conditions of a general license must be carefully reviewed and the use of the general license documented. Activities that do not fall under an available general license may be eligible for a specific license from OFAC. Specific license requests must be submitted and approved by OFAC prior to engaging in the sanctioned activity. Activities conducted under both general and specific licenses are subject to OFAC audit, and records must be maintained for five years after the conclusion of the activity. At UC MERCED, the Export Controls Office should be contacted when considering any proposed OFAC sanctioned activities. Note that license applications to OFAC require substantial advance planning, often taking 6 months or more to be adjudicated by OFAC once submitted.

Additional Considerations

Records/Record Retention

The ITAR, EAR and OFAC regulations all stipulate record keeping requirements for regulated export activities. Under each of these sets of regulations, records must be retained for five years after the completion of the activity and made available to the regulating authority upon request. Records that should be retained include all memoranda, notes, correspondence (including email), financial records,

shipping documentation, as well as any other information related to the export activities. Additionally, when a license exception (EAR) or license exemption (ITAR) is used, additional records documenting the applicability of the exception/exemption may be required and in some cases there may be additional reporting requirements.

Labeling of Export Controlled Material

Export of items controlled under the ITAR or EAR should be clearly marked as controlled, with the appropriate regulatory control cited. Any export requiring a license, as well as exports with a dollar value greater than \$2500, must be entered into the Department of Census Automated Export System (AES) prior to the export of the item or information. While commercial freight forwarders will usually handle the AES entry, the Export Controls Office is able to assist the UC MERCED community for the export of items being hand-carried or technical data being mailed or electronically transmitted.

Penalties for Export Violations

Violation of the export control laws can result in both civil and criminal penalties including fines and imprisonment. Although there is a maximum amount for a civil or criminal penalty, the actual penalty is often multiplied. For instance, if multiple unauthorized shipments of the same item to the same end user were completed, each individual shipment could potentially incur the maximum penalty. Even a single unauthorized export may result in multiple violations (e.g. export without a license, false representation on shipping documents, acting with knowledge of a violation, etc.). Maximum penalties for violations under the OFAC, ITAR and EAR are \$1,000,000 and criminal prison sentences can be up to 20 years for individuals engaging in the violations. Violation of the export control laws may result in the loss of future export privileges (EAR) or even from debarment from participation in future federal contracts (ITAR).

In assessing penalties, regulatory agencies will consider mitigating factors. Mitigating factors include whether the disclosure of the violation was made voluntarily, whether the violation is an isolated incident or part of a pattern of continuing behavior, whether there was a compliance program in place at the time of the violations, whether steps were taken to improve the compliance program after the discovery of the violation and whether the violation was due to inadvertent action, mistake of fact, or a good faith misinterpretation of the laws.

Possible violations of export control laws discovered at UC MERCED should be brought to the attention of the Export Controls Office. Additionally, the UC Whistleblower Hotline (800-403-4744 or <https://secure.ethicspoint.com/domain/media/en/gui/23531/index.html>) is available for

confidential reporting of suspected violations. Most importantly, if there is a question as to whether an activity would be a violation of the export control laws, it is important to consult with the Export Controls Office prior to engaging in the activity.

University of California, Merced Export Control Procedures

Commitment to Export Control Compliance

The University of California, Merced is committed both to the preservation of academic freedom and to compliance with all applicable U.S. Government export regulations. The vast majority of teaching and research activity at UC MERCED falls within one or more exemptions and exclusions from licensing requirements. However, it is important to understand how the laws described in the first section of this manual apply to UC MERCED practices and procedures, as well as the corresponding compliance obligations.

The U.S. government defines exports to include not only tangible or “physical” items such as biological materials, chemicals, and equipment, but also intangible information that may include research data, formulae, engineering designs and ideas. Furthermore, an export is defined not only as an actual physical shipment, but also includes electronic and voice transmissions out of the United States (e.g. email or a phone call to a colleague at a foreign institution or remotely accessing controlled documents while travelling internationally). Exports also include the release of technology to foreign nationals within the U.S., the provision of training or services involving controlled equipment to foreign nationals in the U.S. or abroad, and engaging in transactions or providing services to entities and individuals who are on embargo or specially designated nationals lists.

Exports are controlled by multiple federal agencies including: the Department of State through the International Traffic in Arms Regulations (ITAR), the Department of Commerce through the Export Administration Regulations (EAR), and the Department of Treasury through the Office of Foreign Assets Control (OFAC). Each agency has its own procedures for enforcement, but violations of any of these regulations can result in significant institutional and personal penalties including fines of up to \$1,000,000 per violation, incarceration for up to 20 years, and the loss of future exporting privileges.

As stated, the University of California, Merced is committed to the preservation of academic freedom. However, the University recognizes its obligation to comply with the U.S. export control regulations. Fortunately most, but not all, research activities on campus fall under the “fundamental research exemption”, which provides that basic and applied research activities NOT subject to publication or access restrictions will not be subject to export controls. Other exemptions apply to information shared in the conduct of teaching activities on campus IN the U.S. as well as to information that is already

publicly available. The export regulations are complex and continually changing, so it is important to consider each activity on an individual basis.

The UC MERCED Office of Research Compliance & Integrity (RCI) is responsible for helping the community understand and comply with the export control laws, and apply for an export license when necessary. Please see [the UC MERCED Export Control website](#) for additional information including as well as points of contact for assistance with export control matters. Questions regarding export control laws or procedures for compliance at UC Merced may be addressed to the Export Control Office at exportcontrols@ucmerced.edu.

Roles and Responsibilities for Export Controls at UC MERCED

While it is the responsibility of senior university administrators to ensure the existence of adequate resources and management support to comply with the export control regulations and to resolve identified export control issues, the following roles focuses on other key actors in export compliance at UC MERCED (see also Appendix I).

Empowered Official

A staff member within the University of California's Office of Ethics, Compliance and Audit Services is designated as the Empowered Official for the University of California. In this capacity, the Empowered Official has the authority to represent the university before the export control regulators in matters related to registration, licensing, commodity jurisdiction and classification requests, and voluntary or directed disclosures. While certain oversight functions may be delegated (such as legal counsel or the Export Control Officer), only the Empowered Official may sign paperwork and bind the University of California system in any proceeding before DDTC, BIS, OFAC, or any other government agency with export control responsibilities.

Export Controls Office (ECO)

The Export Controls Office (ECO), a unit of the Office of Research Compliance and Integrity (RCI), is the primary campus organization charged with ensuring that research activities comply with export control requirements. The office collaborates with senior management in order to accomplish the following tasks:

1. Identify areas at UC Merced that are impacted by export control regulations;
2. Develop procedures and other guidance to assist the university in remaining in compliance with export control regulations;

3. Educate inventors, principal investigators, research centers and academic units about export control regulations and procedures at UC Merced;
4. Coordinate with other UC Merced units such as Center for Business Services & Solutions (CBS2), Procurement, Travel, International Programs, Office of International Affairs, Human Resources and the Office of Technology, Innovation, and Industry Relations (OTIIR) regarding export control regulations and procedures at UC Merced;
5. Monitor and interprets export control legislation;
6. Apply for export licenses, commodity jurisdiction and classification requests, and advisory opinions from the U.S. Government;
7. Investigate and report export control noncompliance as required;
8. Work with the campus community to facilitate understanding and compliance with export controls;
9. Assist investigators, researchers and offices at UC Merced when research involves export controlled equipment or information;
10. Seek advice from the Office of Legal Affairs in analyzing and handling export control compliance issues;
11. Assist PIs in developing technology control plans for research involving export controlled items or information to ensure compliance with export control regulations;
12. Advise and assist with record keeping for export controlled activities at UC Merced;
13. Maintain the campus export control website

Export Control Workgroup (ECW)

The Export Control Workgroup provides input regarding activities at UC Merced that are subject to Export Control regulations. Membership consists of representatives from the UC Merced administration and research community. A primary responsibility of the workgroup is providing input on implementing and improving processes for compliance with Export Control regulations and facilitating campus outreach efforts.

The Export Control Workgroup may include representation from the following;

1. Sponsored Projects Office
2. Office of Technology, Innovation, and Industry Relations (OTIIR)
3. Procurement
4. Treasury, Disbursements & Cashiering Services
5. Ethics and Compliance
6. Office of International Affairs
7. Office of Research Compliance and Integrity

8. Risk Services
9. Office of Information Technology
10. Facilities Management
11. Legal Affairs
12. Faculty Senate

Office of Research and Economic Development

The Office of Research and Economic Development (ORED) provides assistance and expertise in export controls by working closely with the Export Control Office in identifying export control issues and providing support for their solution. Only individuals with delegated authority are allowed to bind the University with respect to research-related agreements on behalf of The Regents of the University of California. The ORED is trained to:

1. review terms of sponsored program agreements, material transfer agreements, and other non-monetary agreements to identify restrictions on publication and dissemination of research results and to negotiate out such restrictions;
2. provide assistance to PIs in identifying international components of sponsored program agreements, identifying potential export control issues in the proposed international component and verifying that the international entities and individuals are not restricted parties or specially designated nationals;
3. communicate identified potential export control issues to the PI and the Export Control Office;
4. communicate with the Export Control Officer about any changes in awards that necessitate another review of the project for export controls

Research Administrators

Research Administrators work closely with the Export Controls Office and the PI. Together they:

1. Provide assistance to PIs in reviewing terms of sponsored program agreements, material transfer agreements (MTA) and other non-monetary agreements to identify restrictions on publication and dissemination of research results and flag such restrictions in requests for proposals;
2. Provide assistance to PIs in identifying international components of sponsored program agreements, identifying potential export control issues in the proposed international component;
3. Conduct restricted party screenings;
4. Communicate identified potential export control issues to the PI and the Export Controls Office;

5. Communicate with the Export Controls Office about any changes in awards that necessitate a re-review of the project for export controls.

Business Administrators

The departmental business administrators assist in ensuring compliance with export control regulations by identifying potential export issues in unit activities. Such issues may include reviewing invoices for statements that items may not be exported, ensuring international shipments are approved by the Export Control office, ensuring that payments do not go to, or contracts are not entered into, with entities on restricted lists (via restricted party screening), ensuring that international travel is booked through or registered with Connexus, and ensuring that visa export certification information has been completed.

Principal Investigators

PIs have expert knowledge of the type of information and technology involved in a research project or other university activity, such as presenting at conferences (virtually and in-person) and discussing research findings with fellow researchers or collaborators. PIs must ensure that they do not disclose controlled information, such as information that has been provided to them under a corporate non-disclosure agreement, or transfer export-controlled articles or services to a foreign national without prior authorization as required. Each PI must:

1. Understand his/her obligations under the export control laws, including international travel, international shipping, foreign collaborations and accessing controlled technology.
2. Assist the Export Controls Office in correctly classifying technology and items that are subject to export control laws;
3. Assist in developing and maintaining the conditions of a Technology Control Plan for any activity, data or equipment where the need for such a plan is identified; ensure that research staff and students have been trained on the Technology Control Plan and on the export control regulations should any apply.

Export Control Analysis

An export control analysis should be performed when a PI submits a proposal, receives an award, or changes the scope of an existing project.

Staff from Sponsored Projects Office (SPO) and Office of Technology, Innovation and Industry Relations (OTIIR) perform an initial analysis of the request for proposal, broad agency announcement, or award.

The SPO and OTIIR grant and contracts staff are trained to identify the following red flags that indicate the possible presence of export control issues:

1. references U.S. export control regulations (beyond a mere statement to comply with the law);
2. restricts access or participation based on country of origin;
3. restricts the use of proprietary or confidential information;
4. grants the sponsor pre-publication review and approval for matters other than the inclusion of patent or sponsor proprietary/confidential information;
5. allows the sponsor to claim the results or data generated in the agreement as proprietary or trade secret;
6. involves export-controlled equipment, data, or technology (if known);
7. includes foreign sponsors or collaborators;
8. travel, shipping, or work outside of the United States;
9. military applications of project results.

All foreign subrecipients and prime sponsors are screened against the specially designated and restricted parties lists. In the event that export-controlled equipment, data, or technology is identified in a proposal or award document, it is referred to the Export Control Office.

Technology Control Plans (TCP)

When export-controlled equipment, data, or technology is identified for a project, the Export Control Officer will determine whether a TCP is required. If deemed necessary, the Export Control Officer will work with the PI to develop and implement a TCP to appropriately secure the equipment, data, or technology from access by unlicensed non-U.S. persons. The TCP will include:

1. a commitment to export control compliance;
2. identification of the applicable export controls and items or technologies subject to the controls;
3. a description of the agreed upon security measures to control the item/technology, including as appropriate:
 - a. Laboratory compartmentalization
 - b. Time blocking
 - c. Marking
 - d. Locked storage

- e. Electronic security
 - f. Confidential communications;
4. identification and nationality of each individual who will have access to the controlled item or technology;
 5. personnel screening measures for granting access to the controlled item/technology;
 6. appropriate security measures for disposal of the item/technology when use is complete.
- Before any individual may have access to such export-controlled items or technology, they must be informed of the conditions of the TCP and agree to comply with the security

Licensing

Licenses from OFAC may be required in support of international university activities in embargoed countries. Licenses from the Department of State or the Department of Commerce may be required for the export of UC Merced-owned equipment in support of international activities.

Additionally, export licenses may be required in order for foreign nationals to access controlled items or technology at UC Merced. In the event that a license is required, the Export Control Office with the advice of the Chief Campus Counsel, as required, will prepare and sign the necessary documentation for preparing the license request. ITAR license requests must be escalated to the Empowered Official, who is the only individual permitted to file such requests.

The Export Control Office will be responsible for maintaining records associated with license requests, and coordinates with the Empowered Official to ensure that ITAR license records are maintained. UC Merced personnel who are unsure about licensing requirements for proposed international activities or the use of controlled equipment by foreign nationals should consult with the Export Control Office prior to engaging in the activity.

Training

Training is the foundation of a successful export compliance program. Well-informed employees minimize the likelihood that inadvertent violations of the law will occur. The greatest risk of non-compliance of export laws and regulations occurs during casual conversations in person, on the telephone, or via email. The way to prevent these types of violations is through awareness and training.

The Export Control Office, in coordination with appropriate stakeholders, will prepare updated training

materials and will ensure that employees or students engaged in export-controlled activities receive the appropriate briefing. The office will also maintain records of training or briefings provided. In addition to in person training sessions, training on export controls is available in the Learning Management System (LMS). Additional resources addressing special topics are available on the export control web page found at <https://rci.ucmerced.edu/export-controls>.

The Export Control Office, with the support of the Export Control Workgroup, will facilitate export control training sessions or briefings relative to UC Merced's relevant schools, departments, centers, or institutes and business units. The Export Control Office will work with senior management as necessary to implement export training to fit the individual unit needs.

Recordkeeping

UC Merced's policy is to maintain export-related records based on individual controlled items or activities. Unless otherwise provided for or instructed by the Office of the General Counsel, all records shall be maintained consistent with the UC Merced record retention policy.

If ITAR-controlled technical data is exported under an exemption, certain records of the transaction must be kept even beyond UC Merced's 5-year retention period⁵.

Those records include:

- a description of the unclassified technical data;
- the name of the recipient/end-user;
- the date/time of export;
- the method of transmission (e.g., email, fax, telephone, FedEx); and
- the exemption under which the export took place.

Note that information that meets the criteria of being in the public domain, being educational information, or resulting from Fundamental Research is not subject to export controls under the ITAR. Therefore, the special requirement for recordkeeping when using an exclusion, exception, or exemption may not apply. However, it is a good practice to provide such a description for each export to establish a record of compliance.

⁵ See 22 C.F.R. §§ 122.5 and 123.26

BIS has specific record-keeping requirements.⁶ Generally, records required to be kept by EAR must be kept for a period of 5 years from the last export date. However, if BIS or any other government agency makes a request for such records following a voluntary self-disclosure, the records must be maintained until the agency concerned provides written authorization otherwise.

Monitoring and Periodic Reviews

In order to maintain UC Merced's export compliance program and to ensure consistent adherence to U.S. export laws, the University may conduct internal reviews of TCPs and export records. The purpose of the reviews is to: (i) identify possible violations; and (ii) identify deficiencies in training, procedures, etc. that can be rectified.

Detecting and Reporting Violations

Any individual who suspects a violation has occurred must immediately notify the Export Control Officer, the Office of Legal Affairs, or the UC Whistleblower Hotline (800-403-4744 or <https://secure.ethicspoint.com/domain/media/en/gui/23531/index.html>). The

Export Control Office and/or Assistant Vice Chancellor for Research Compliance & Integrity will work with Office of Legal Affairs to determine the appropriate follow-up to the notification, which may include a voluntary self-disclosure to the government. The empowered official may send an initial notification about the suspected violation to the appropriate government agency. The Export Control Office and/or Assistant Vice Chancellor for Research Compliance & Integrity, assisted by Office of Legal Affairs, will conduct an internal review of the suspected violation by gathering information about the circumstances, personnel, items, and communications involved. Once the review is complete, the Assistant Vice Chancellor may provide the government agency with a supplementary letter with a thorough narrative account of:

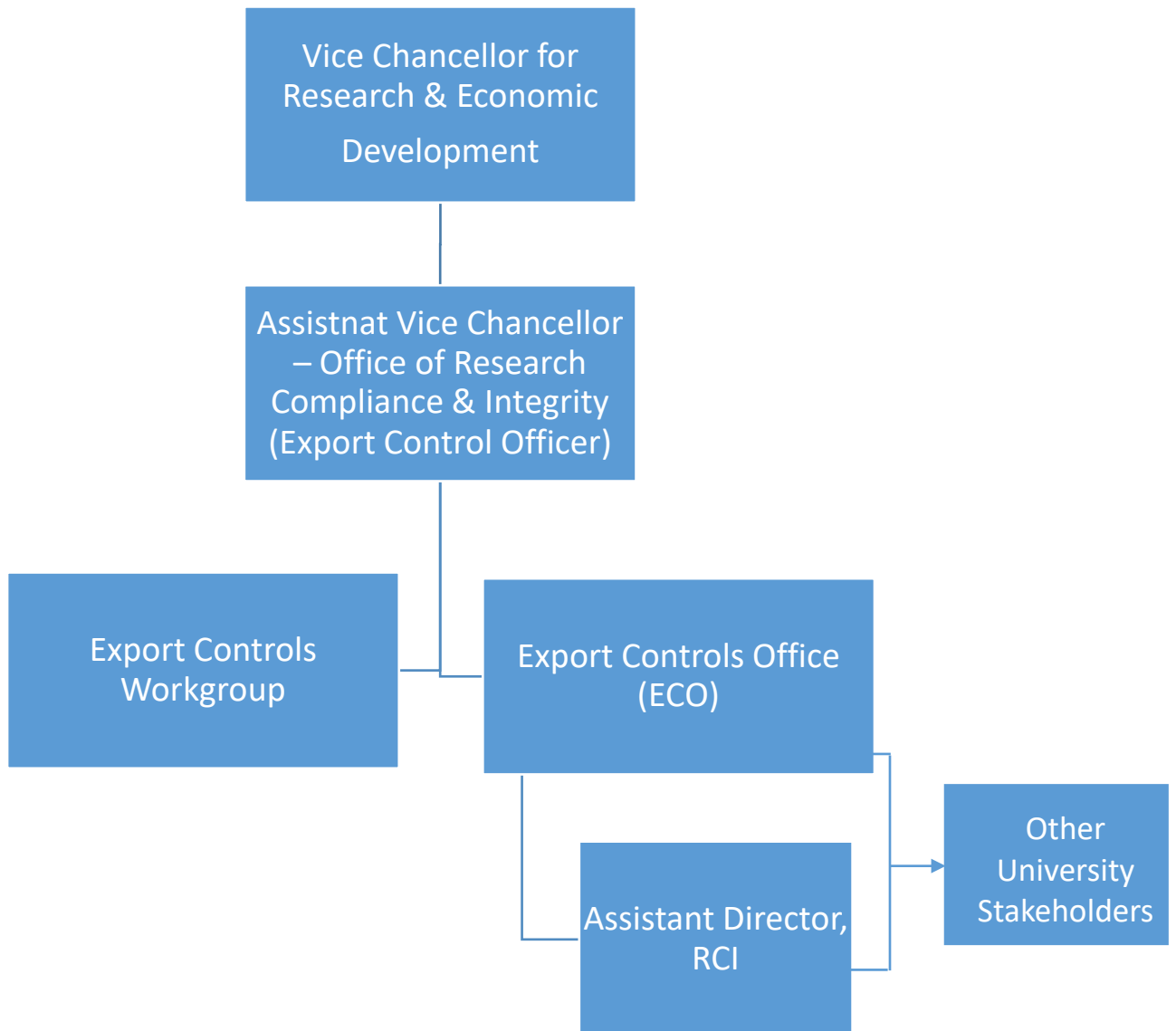
1. the project's description and background;
2. a description of the suspected violation;
3. which items and controlled categories were involved;
4. which dates the violations occurred on;
5. which countries were involved;
6. who was involved and their citizenships;

⁶ See 15 C.F.R. § 762.6.

7. an explanation of why the alleged violation occurred;
8. any corrective actions taken; and
9. UC Merced's commitment to export controls compliance.

Once the initial notification and supplementary letter have been sent, UC Merced will follow the government agency's instructions.

Appendix 1: University of California, Merced Export Controls Organization Chart



Appendix 2: Glossary and Abbreviations

Glossary

Commerce Control List (CCL): The CCL identifies specific item subject to the list-based controls of the Export Administration Regulations, under the export control jurisdiction of the Bureau of Industry and Security in the United States Department of Commerce (10 CFR §774)

Deemed Export: Release of technology or source code subject to the EAR to a foreign national in the United States is considered or “deemed” an export to the home country of the foreign national. The ITAR considers any transfer or disclosure of technical data to a foreign national (in the United States or abroad) to be an export.

Defense Article: In the ITAR, a defense article means any item or technical data designated on the United States Munitions List (USML). The term includes technical data recorded or stored in any physical form, models, mockups or other items that reveal technical data directly relating to items designated on the USML. It does not include basic marketing information on function or purpose or general system descriptions. A defense article includes a wide array of objects, and is not limited to traditional “weapon” or “military” items.

Defense Service: In the ITAR, a defense service means 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 a defense article. The term also includes the furnishing to foreign persons of any technical data controlled under the ITAR, in either the United States or abroad. Finally, defense services include military training of foreign units and forces, regular or irregular, including formal or informal instruction of a foreign person in the United States or abroad by either correspondence course, technical, educational, or information publications and media of all kinds.

End-use, End-user: The EAR controls the export of all items subject to the EAR if they will be received by certain entities or used for certain purposes. Many EAR licenses and exemptions require certified “end use” statements from the receiver of the EAR data or hardware.

Export Control Classification Number (ECCN): A five-character alphanumeric classification used under the EAR to identify items on the Commerce Control List.

Foreign Person: The regulations define foreign person as anyone who is not a U.S. person. The EAR bases this on person's most recent citizenship or permanent residence. The ITAR bases this on the person's country of origin (i.e., country of birth) and all current citizenships.

International Traffic In Arms Regulations (ITAR): The ITAR (22 CFR §120 – 130), under the jurisdiction of the United States Department of State, controls the export of articles, services, and related technical data whose most predominant application is that of defense. The defense articles, services, and technical data are listed on the United States Munitions List (USML).

Office of Foreign Assets Control (OFAC): An office within the United States Department of Treasury that administers and enforces economic embargoes and trade sanctions based on US foreign policy and national security goals.

Reexport: An actual shipment or transmission of an item subject to the EAR from one foreign country to another. Reexports of EAR controlled items typically require a license or other form of government authorization

Restricted Parties: Individuals or entities with whom the university and its employees are prohibited by law, or require a license, to engage in export controlled activities. Lists include Denied Parties List (OFAC), Debarred Parties List (ITAR) and Denied Persons List and Denied Entities List (EAR).

Restricted Research: University research, development, or testing subject to: publication restrictions, access or dissemination controls, or contract-specific national security restrictions (usually federally-funded).

Sanctioned and Embargoed Countries: Countries designated by OFAC, ITAR, and EAR as having limited or comprehensive trade and arms sanctions imposed by the United States for reasons of anti-terrorism, non-proliferation, drug and human trafficking, human rights violations, and other reasons.

Technical Data: Refers to information required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of controlled articles. This information can be in the form of blueprints, instructions, diagrams, photographs, etc.

Technology: In the EAR, technology is specific information necessary for the development, production, or use of a product.

United States Munitions List (USML): The USML includes articles, services, and related technical data designated as defense articles and services pursuant to the ITAR.

US Person: For purposes of defense and dual-use exports, a U.S. person is defined as a U.S. entity or a U.S. citizen, or a person lawfully admitted for permanent residence in the United States (i.e., green card holder) A U.S. person may be engaged in activities that are export controlled, unless there are some additional restrictions that limit participation to U.S. citizens.

Abbreviations

AECA	Arms Export Control Act
AES	Automated Export System
BIS	Department of Commerce Bureau of Industry and Security
CCL	Commerce Control List
CFR	Code of Federal Regulations
CJ	Commodity Jurisdiction
DDTC	Department of State Directorate of Defense Trade Controls
EAR	Export Administration Regulations
ECCN	Export Control Classification Number

EO	Empowered Official
ECO	Export Controls Office
ITAR	International Traffic in Arms Regulations
OFAC	Department of the Treasury Office of Foreign Assets Control
OCG	Office of Contracts and Grants / Sponsored Programs
ORI	Office of Research Integrity
PI	Principal Investigator
SDN List	Specially Designated Nationals and Blocked Persons List
TAA	Technical Assistance Agreement
TCP	Technology Control Plan
UC MERCED	University of California, Merced
USML	United States Munitions List
VPN	Virtual Private Network