



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

INTRODUCTION

This Standard Operating Procedure (“SOP”) outlines the processes used to foster a culture of compliance with U.S. Export Controls¹ and the University of California - Policy on Export Control (“Export Control Policy”)². This SOP is in furtherance of the local Export Compliance Program Plan (“ECP”) maintained and regularly reviewed and updated by the campus Export Control Office.

PURPOSE AND SCOPE

The University of California’s strategy for compliance with applicable U.S. Export Controls is based upon maintaining an open fundamental research environment, by observing the freedom to publish and disseminate research results and practicing nondiscrimination and open access to university classrooms, libraries, laboratories, and specialized research facilities, without regard to citizenship.

To facilitate compliance with this strategy and applicable U.S. Export Controls, this procedure outlines basic steps to assist researchers and the research community in understanding the impact U.S. Export Controls can have on research and non-research activities; and to identify the types of activities that may require escalation to the Export Control Office for further review and assistance.

KEY TERMS AND DEFINITIONS

Fundamental Research

The National Security Decision Directive 189 (NSDDs 1985)³ defines fundamental research as “basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished by proprietary research and from industrial development, design, productions, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.”

Under the EAR ([15 CFR § 734.8](#)) and ITAR ([22 CFR § 120.34\(a\)\(8\)](#)), fundamental research is defined to mean basic and applied research in science, mathematics and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls.

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 or activity, or

¹ U.S. Export Controls include without limitation the Export Administration Regulations (“EAR”), International Traffic in Arms Regulations (“ITAR”), and regulations and orders administered by the Treasury Department’s Office of Foreign Assets Control (“OFAC”)

² University of California – Policy on Export Control dated June 21, 2018, as amended. <https://policy.ucop.edu/doc/2000676/ExportControl>

³ National Policy on the Transfer of Scientific, Technical and Engineering Information: <https://fas.org/irp/offdocs/nsdd/nsdd-189.htm>



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

- ii. The research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable.

Please note that even in the conduct of fundamental research, an export license or control plan may be required if the project involves any of the following:

- an NDA covering the exchange of export-controlled information;
- access to export-controlled items, including technology, software, biological items and select agents;
- a non-research function (e.g., a service agreement) where there is access to export-controlled items, technology, or software; or
- access to ITAR-controlled equipment and its associated technical data.

Proprietary Research

The National Security Decision Directive 189 (NSDDs 1985) describes proprietary research as “industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.”

When conducting proprietary research, the resulting information may be subject to the ITAR or EAR.

Examples of proprietary research include corporate funded projects, federally funded contracts subject to National Industrial Security Program Operating Manual (NISPOM), and campus services centers.

Publicly Available

Pursuant to [§ 734.3\(b\)\(3\)](#) of the EAR, publicly available means information and software that:

- i. Are published, as described in [§ 734.7](#) of the EAR;
- ii. Arise during, or result from, fundamental research, as described in [§ 734.8](#) of the EAR;
- iii. Are released by instruction in a catalog course or associated teaching laboratory of an academic institution (i.e., educational information);
- iv. Appear in patents or open (published) patent applications available from or at any patent office, unless covered by an invention secrecy order, or are otherwise patent information as described in [§ 734.10](#) of the EAR;
- v. Are non-proprietary system descriptions; or
- vi. Are telemetry data as defined in Note 2 to Category 9, Product Group E of [Supplement No. 1 to Part 774 of the EAR](#).

Note 1: A printed book or other printed material setting forth encryption source code is not itself subject to the EAR (see [§734.3\(b\)\(2\)](#)). However, notwithstanding [§734.3\(b\)\(2\)](#), encryption source code in electronic form or media (e.g., computer diskette or CD ROM) remains subject to the EAR (see [§734.17](#)). Publicly available encryption object code “software” classified under ECCN 5D002 is not subject to the EAR when the corresponding source code meets the criteria specified in [§742.15\(b\)](#) of the EAR.

Note 2: *Except as set forth in [Part 760](#) of the EAR, information that is not within the scope of the definition of “technology” (see [§772.1](#) of the EAR) is not subject to the EAR.*

Public Domain



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

Pursuant to [22 CFR §120.34\(a\)](#) of the ITAR, public domain means information which is published and which is generally accessible or available to the public:

- 1) Through sales at newsstands and bookstores;
- 2) Through subscriptions which are available without restriction to any individual who desires to obtain or purchase the published information;
- 3) Through second class mailing privileges granted by the U.S. Government;
- 4) At libraries open to the public or from which the public can obtain documents;
- 5) Through patents available at any patent office;
- 6) Through unlimited distribution at a conference, meeting, seminar, trade show or exhibition, generally accessible to the public, in the United States;
- 7) Through public release (i.e., unlimited distribution) in any form (e.g., not necessarily in published form) after approval by the cognizant U.S. government department or agency;
- 8) Through fundamental research in science and engineering at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community.

Published

Pursuant to [15 CFR §734.7](#) of the EAR, technology or software is published, and is thus not technology or software subject to the EAR, when it has been made available to the public without restrictions upon its further dissemination such as through any of the following:

- 1) Subscriptions available without restriction to any individual who desires to obtain or purchase the published information;
- 2) Libraries or other public collections that are open and available to the public, and from which the public can obtain tangible or intangible documents;
- 3) Unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the interested public;
- 4) Public dissemination (i.e., unlimited distribution) in any form (e.g., not necessarily in published form), including posting on the Internet on sites available to the public; or
- 5) Submission of a written composition, manuscript, presentation, computer-readable dataset, formula, imagery, algorithms, or some other representation of knowledge with the intention that such information will be made publicly available if accepted for publication or presentation:
 - i. To domestic or foreign co-authors, editors, or reviewers of journals, magazines, newspapers or trade publications;
 - ii. To researchers conducting fundamental research; or
 - iii. To organizers of open conferences or other open gatherings.

Note: a conference or gathering is "open" if all technically qualified members of the public are eligible to attend and attendees are permitted to take notes or otherwise make a personal record of the proceedings and presentations. A conference is considered open notwithstanding a registration fee reasonably related to cost, and there may be a limit on actual attendance so long as the selection is either 'first come' or selection based on relevant scientific or technical competence.

Deemed Exports



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

Pursuant to [15 CFR § 734.13](#) of the EAR, any release or otherwise transfer of technology or source code (but not object code) to a foreign person in the United States is a deemed export to the foreign person’s most recent country of citizenship or permanent residency.

Similarly, pursuant to [22 CFR § 120.50\(b\)](#) of the ITAR, any release in the United States of technical data to a foreign person is deemed to be an export to all countries in which the foreign person has held or holds citizenship or holds permanent residency.

Technology Control Plan

A Technology Control Plan (TCP) is a customized management plan that outlines procedures to prevent unauthorized export or deemed export of controlled items, materials, equipment, information, or software that may be received or developed during the performance of university activities subject to export controls. TCP’S are created by the Export Control Office in consultation with the researcher.

TCP requirements can vary between licenses, Technical Assistance Agreements (TAAs), or Manufacturing License Agreements (MLA's) and often must be approved by the U.S. Government. The key elements of a TCP are outlined in Appendix B of this SOP.

When required by applicable U.S. Export Controls, UCR will implement a TCP to delineate and inform UCR faculty and staff of the controls necessary to ensure that no transfer of technical information or data or defense service occurs unless authorized by the U.S. Government. Not all research projects, contracts, business activities or transactions will require the use of a TCP.

RESPONSIBILITIES

General

To maintain the fundamental research environment, such that scientific data and results qualify as being in the “public domain” under the ITAR and are not subject to the EAR under the provisions related to publicly available technology; published information and software; information resulting from fundamental research; and educational information; UCR may not accept such restrictions in a research award, and in addition, no UCR employee can consent (in a written or verbal side agreement or arrangement) or otherwise engage in behavior that restricts publication or the participation of foreign nationals.

Researchers

It is important that researchers adhere to the steps contained in the SOP to preserve the “publicly available” and “public domain” exemptions provided by the U.S. Government, including that afforded to fundamental research. Without exemptions, the EAR or ITAR licensing requirements may apply to information (technology or technical data) concerning controlled commodities or items.

Unless a license exemption applies, a “deemed export” license would then be required before information is conveyed (even visually through observation) to foreign students, researchers, staff, or visitors on campus, and an actual export license would be required before information is conveyed abroad to anyone.



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

STEPS FOR RESEARCHERS TO FOLLOW

Publication and Personnel Restrictions

Researchers are encouraged to “publish” research results, including technology and software, in a timely manner (e.g., early, and often) through one of the means that qualifies as "publicly available" or "in the public domain."

Pre-Publication Review and Approval Requirements

Do not accept publication controls or access/dissemination restrictions, enter into ‘secrecy agreements’, or otherwise agree to withhold results in research projects conducted at UCR or that involve UC facilities, students, or staff.

Foreign Persons

Do not provide citizenship, nationality, or visa status information to project sponsors or other third parties or agree to background checks for project participants. Researchers should consult with the Contract & Grant Officer and Export Control Office in the event a project sponsor or other third party makes such a request.

Proprietary Restrictions

Do not accept proprietary information from another that is marked “Export Controlled.” Return to the manufacturer any materials they provide to you about export-controlled equipment that is marked “Confidential”. Review any Confidentiality/Non-Disclosure Agreements to ensure that UCR and you are not assuming the burden of restricting dissemination based on citizenship status or securing licenses.

National Security Restrictions

Direct any questions regarding Department of Defense form DD2345 (entitled, "Militarily Critical Technical Data Agreement"), or Department of Energy NETL F 142.1-1A (entitled, “Request for Unclassified Foreign National Access (Short Form)”) to the Contract & Grant Officer and Export Control Office.

Activities Involving Sanctioned Countries or Restricted Parties

- Sanctioned countries include Cuba, Iran, North Korea, Syria, Russia, Belarus, and Ukraine. For an updated list of sanctions programs and country information, visit: <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information>

Do not travel to a sanctioned country without first checking with the Export Control Office to ascertain whether prior authorization from the U.S. Government is required.

Do not import or export any items, including technology or software, to or from a sanctioned country without first checking with the Export Control Office to ascertain whether prior authorization from the U.S. Government is required.

Do not engage in research collaborations or procurement activities with a restricted party without first checking with the Export Control Office to ascertain whether prior authorization from the U.S. Government is required.



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

Do not engage in any international activities with entities or individuals located in a sanctioned country without first checking with the Export Control Office to ascertain whether prior authorization from the U.S. Government is required.

Refer to Standard Operating Procedure (SOP) Restricted Party Screening, End-Use & End-User Checks SOP for further guidance on Restricted Party Screening <https://exportcontrol.ucr.edu/documents-and-procedures>.

Engagements Involving Countries of Concern and Critical and Emerging Technology

Engagements involving a Country of Concern⁴ should be reviewed by the Export Control Office and Research Security before initiating the engagement pursuant to [UC President Drake letter dated August 28, 2023](#)⁵. Countries of Concern engagements are activities or relationships that involve significant or meaningful interaction, affiliation, collaboration, or exchange with a foreign entity/individual involving a country of concern.

Note that Country of Concern is not the only compliance consideration. Please visit the Export Controls website for additional guidance on International Collaborations: <https://exportcontrol.ucr.edu/#international-collaborations>

Critical and Emerging Technology⁶ can be used broadly to mean different specific technological areas for various purposes. For the purposes of reviewing international Engagements and affiliations in relation to the President's Letter, a list of Critical and Emerging Technologies can be found in the federal government's [February 2024 Critical and Emerging Technologies List Update](#).

International Shipments

Prior to the shipment or hand-carry of any items out of the U.S., with the support of the Export Control Office, determine if the commodity requires an export license and assist in securing such license, when required.

Refer to Standard Operating Procedure (SOP) ScotSurplus / Receiving Services / Mail Room SOP for further guidance on international shipments <https://exportcontrol.ucr.edu/documents-and-procedures>.

⁴ The University of California's (UC) framework on international engagements defines "countries of concern" as China, Iran, North Korea, Russia, Qatar, Saudi Arabia, and the United Arab Emirates. These countries pose higher risks to institutions of higher education due to national security concerns and their status as significant funding sources for UC, particularly concerning emerging technologies. This designation mandates enhanced review and approval for international affiliations and agreements involving these countries and emerging technologies to protect UC's intellectual property and research reputation.

⁵ On August 28, 2023, the President issued a letter to the Chancellors and Lawrence Berkeley National Laboratory Director outlining a new comprehensive framework (herein referred to as "framework") with three core requirements for any University of California (UC) international affiliations and agreements involving emerging technology and countries of concern. These new requirements are intended to proactively protect our intellectual property, strengthen our collaborations, and preserve the reputation of our research enterprise.

⁶ Critical and Emerging Technology means a specific but evolving list of technology areas under [Sec 1758 of the Export Control Reform Act \(ECRA\)](#).



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

RECORDKEEPING

All documents created or modified in the performance of this SOP shall be retained and managed in accordance with relevant Export Control regulations and as captured in the UC Records Retention Schedule⁷. In the event of conflict between the retention periods in the regulations and the UC Records Retention Schedule, the periods specified by the regulations shall take precedence. If the controlling agencies have no stated requirements, records should be kept no longer than as required by the UC Records Retention Schedule. To verify or obtain record retention information and instructions please contact the Export Control Office.

QUESTIONS

Contact the Export Control Office at exportcontrol@ucr.edu if you encounter problems in any of the above areas for assistance in resolving the matter so that the research may proceed in a manner that avoids violation of applicable U.S. Export Control regulations.

⁷ University of California – Records Retention Schedule <https://recordsretention.ucop.edu/>



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

APPENDIX A – REVISION HISTORY

Date	Reason	Notes
10/04/2021	Final Version Release	Initial release
09/30/2022	Updated header on pages 2-10 to include title of document. Updated regulatory citations and hyperlinks in section III. Key Terms and Definitions. Updated section V. Steps for Researchers to Follow to clarify activities involving sanctioned countries and inserted SOP reference for international shipping. Added Appendix 2 - Lists of Controlled Items; and Appendix 3 - List of Controlled Materials.	
09/23/2025	Updated format, headers, and made minor grammatical changes throughout for simplified reading. Renamed Appendices and updated hyperlinks. Added new Steps for Researchers to Follow to address Engagements Involving Countries of Concern and Critical and Emerging Technology.	



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

APPENDIX B - ELEMENTS OF A TECHNOLOGY CONTROL PLAN

When implementing a Technology Control Plan (“TCP”), consider the complex environment that is unique to your research facility, laboratory, and offices. TCP’s may be required for a single researcher, office, laboratory, or for laboratories shared by multiple PI’s and research teams.

UCR utilizes a standard TCP template containing the following key elements:

- Statement of Institutional Commitment to Export Compliance
- Relevant Parties for Export Control compliance and authority
- Purpose and a list of Covered Item(s) and Information under the TCP
- Physical Security plan
 - Work Area
 - Storage
 - Marking
- Electronic Information Security plan
 - Electronic Information
 - Electronic Information Security Roles and Responsibilities
 - External Requirements
- Authorized Personnel requirements
 - Identification
 - Training
 - Screening
- Recordkeeping requirements
- Instruction for the Return, Removal or Disposal of Covered Items or Information and TCP Closeout
- Internal Notification, Certification & Assessment



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

APPENDIX C - LIST OF CONTROLLED ITEMS

For a complete list of export-controlled items, please click on the appropriate source link provided below. Please contact the Export Control Office should you have any questions or encounter any of the listed items during research.

U.S. Department of Commerce, Bureau of Industry and Security (BIS)

Regulations: Export Administration Regulations (“EAR,” 15 CFR Part 730-774)

Focus: “dual use” items and technologies having both legitimate commercial purposes and potential military applications

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

- Category 0 – Nuclear Materials Facilities & Equipment [and Miscellaneous Items]
- Category 1 – Special Materials and Related Equipment, Chemicals, “Microorganisms,” and “Toxins”
- Category 2 – Materials Processing
- Category 3 – Electronics
- Category 4 – Computers
- Category 5 Part 1 – Telecommunications
- Category 5 Part 2 – Information Security
- Category 6 – Sensors and lasers
- Category 8 – Marine
- Category 9 – Aerospace and Propulsion

U.S. Department of State, Directorate of Defense Trade Controls (DDTC)

Regulations: International Traffic in Arms Regulations (“ITAR,” 22 CFR 120-130)

Focus: Critical defense articles, technical data and services enumerated on the United States Munitions List

Control List: [United States Munitions List \(USML\)](#)

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

Nuclear Regulatory Commission (NRC, Title 10, CFR)

Control List: [10 CFR 110.8](#)

List of Controlled Items: [Appendix A – K to Part 110](#)

The Department of Energy (DOE)

Control List: [10 CFR § 810.7](#)

List of Controlled Items: See Control List



Export Compliance Plan Standard Operating Procedure (SOP) Research & Technology Controls Research Activities	
Document Number:	ECP-20210110-SOP6
Issue Date:	10/04/2021
Revision Date:	09/23/2025

APPENDIX D - LIST OF CONTROLLED MATERIALS

For a complete description of export-controlled materials, please click on the appropriate source link provided below. Please contact the Export Control Office should you have any questions or encounter any of the listed materials during research.

Note: the listed materials (e.g., chemical, chemical mixtures, test kits, biological agents, vaccines, biopharmaceuticals) are controlled for export regardless of quantity or attenuation, genetic elements or genetically modified organisms for such agents or “toxins”, including small quantities or attenuated strains of select biological agents or “toxins” that are excluded from the lists of select biological agents or “toxins” by APHIS, CDC, or DHHS.

U.S. Department of Commerce, Bureau of Industry and Security (BIS)

Regulations: Export Administration Regulations (“EAR,” 15 CFR Part 730-774)

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

Control Category: Category 1 – Materials Chemical Microorganism and Toxins

List of Items Controlled:

- ECCN 1C350 - Chemicals that may be used as precursors for toxic chemical agents
- ECCN 1C351 - Human and animal pathogens and “toxins”
- ECCN 1C353 - Genetic elements and genetically modified organisms
- ECCN 1C354 - Plant pathogens
- ECCN 1C355 - Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals
- ECCN 1C395 - Mixtures and Medical, Analytical, Diagnostic, and Food Testing Kits
- ECCN 1C991 - Vaccines, immunotoxins, medical products, diagnostic and food testing kits
- ECCN 1C995 - Mixtures and Medical, Analytical, Diagnostic, and Food Testing Kits
- ECCN 1C999 - Specific Materials, n.e.s.

U.S. Department of State, Directorate of Defense Trade Controls (DDTC)

Regulations: International Traffic in Arms Regulations (“ITAR,” 22 CFR 120-130)

Control List: [United States Munitions List \(USML\)](#)

Control Category: Category XIV - Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment

List of Items Controlled: See Control Category

Nuclear Regulatory Commission (NRC)

Regulations: Title 10, CFR

Control List: [10 CFR 110.9](#)

List of Controlled Items: See Control

Centers for Disease Control (CDC)

Regulations: 7 CFR Part 331, 9 CFR Part 121, and 42 CFR Part 73

Control List: [HHS and USDA Select Agents and Toxins](#)