

TECHNOLOGY CONTROL PLAN (TCP)

Restriction Type: EAR Dual Use-controlled Technology and Related Items

TCP #: [List TCP#]

Department: [name Department]

Responsible Individual/Lead PI: [name RI/PI]

Location: [List Location]

1.0 Introduction: Reason for TCP and Regulatory Requirements

The purpose of this Technology Control Plan (TCP) is to establish the safeguards required by U.S. Export Control Regulations that apply to accessing and using EAR¹, dual use-controlled technology and technical data. In general “dual use” means that which is civil by design and application (without involving defense specifications per se) but could, by virtue of its capabilities, perform a defense function in addition to its civil application.

Specifically, these safeguards are required when the research involves “use”, “development”, or “production” technology (defined below) with respect to a particular dual use-controlled research item - - whether equipment, instruments, software, or materials (also defined below) during the course of a) fundamental research activities; or b) proprietary industry contracts.

In these scenarios, such dual use-controlled technology may be restricted from foreign national participants (defined below) for deemed export purposes even if such participants are otherwise unrestricted from participating in the overall scope of fundamental research or proprietary contract. In other words, in these dual use technology situations, unless a foreign national is specifically authorized by export license to access and use the dual-use technology, they must remain restricted.

1.1 For purposes of EAR controls, the following general definitions apply:

1.1.1 Foreign national: individuals who are neither U.S. citizens nor Permanent Residents. In other words, individuals present in the U.S. on temporary immigration visas (e.g. F-1, H-1, J-1, B-1, O-1). Under the deemed export definition, an export occurs when a foreign national gains dual use technology which is controlled for that particular foreign national’s citizenship: the export is “deemed” to have occurred at the point of gaining the technology rather than at the eventual termination of visa status and return to country of citizenship or third country.

¹ Export Administration Regulations

1.1.2 Instrument, equipment, or commodities: any item used in the [Program/Research/Laboratory] that has been identified as EAR-controlled either by TAMU, the item's vendor, or other external party, including those items which *already* exist in the laboratory where program research occurs *or* those items to be procured or otherwise received into the laboratory.

1.1.3 Technical data: includes but is not limited to the following:

- a. Proprietary data provided from any source (typically under a Non-Disclosure Agreement) pertaining to EAR-controlled instruments, software, etc., not otherwise in the public domain, and including drawings, blueprints, schematics, specifications and background information
- b. Data *used or developed* pursuant to a fundamental research program or proprietary contract that meets the definition of dual use controlled technology below.
 - o In the context of a proprietary contract, this includes data that is associated with producing or achieving the contract deliverable, even if not ultimately provided to the sponsor as part of the actual deliverable
- c. Operation Manuals and related documentation related to dual use-controlled instruments and software
- d. Data communicated through conversations and meeting notes pertaining to the proprietary data (other than fundamental research results)

1.1.4 Software: any closed source or executable code that is identified as EAR-controlled, including any related compilation or reference material to use, upload, maintain or operate the software.

1.1.5 Materials: may include raw or fabricated materials (including physical, chemical or biological materials) identified as EAR-controlled.

1.1.6 Dual Use-Controlled Technology

- a. "Use" technology associated with dual equipment, instruments, software, or materials that have been identified as dual-use controlled: in this scenario, the fundamental research or proprietary contract activity involves operating, maintaining, repairing, refurbishing, or installing the dual use-controlled item (or a combination of some of these activities) so as to gain an understanding of the controlled design and performance features of the item.

(1) Whether "use technology" triggers a foreign national restriction is determined on a case-by-case basis: in some cases, the underlying controlled design feature may only be gained by performing all or most of the function listed above (operating, repairing, installing, etc.). In other cases, such as those involving Space

research and dual use items controlled under CCL ECCN 9A515 et seq., any one of the aforementioned activities (operating, or repairing, or installing, etc.) automatically triggers a potential deemed export/foreign national restriction

- b. "Development" technology associated with dual equipment, instruments, software, or materials that have been identified as dual-use controlled: in this scenario, the fundamental research or proprietary contract involves participating in item design, design analysis, design modification or co-design activities (conducted with a vendor or external collaborator), enabling the candidate to gain an understanding of the controlled internal design features of the equipment. Any singular activity that conveys the underlying design that renders the item capable of dual use performance meets this definition of "development."
- c. "Production" associated with dual equipment, instruments, software, or materials that have been identified as dual-use controlled: in this scenario, the fundamental research or proprietary contract involves technology associated with the manufacture, assembly or prototype production of an export controlled item, typically once the development technology has been finalized and implemented. Any singular activity that conveys production technology that renders the item capable of dual use performance meets this definition of "production."

Note: As not all dual use technology controls apply uniformly to all foreign nationals who may be eligible to participate in the prescribed fundamental research or contract activity, any potential foreign national restriction must first be confirmed by TAMU's Export Administrator consistent with the requirements of this TCP. The Export Administrator shall assist in the determination of who, from a foreign national perspective, may be eligible to participate in the particular activity involving the gaining of dual use technology, including the initial classification determination of dual use technology, and the possibility of obtaining a deemed export license to authorize the participation or the proper use of a license exemption.

1.2 Consequences of Compliance Failure

Failure to adhere to these regulations and this TCP can result in an enforceable export control violation. Enforcement penalties can be civilly assessed and criminally prosecuted against both TAMU as the host institution and *the individual* associated with the causing or facilitating the export violation. Other sanctions include Federal debarment and/or revocation of export privileges. Therefore, it is of the utmost importance that all persons associated with the [name Program/Research/Laboratory] strictly adhere to the following requirements, and sign the Acknowledgement Certification attached hereto.

2.0 Description of the [Program/Research/Laboratory] Wherein the Dual-use Controlled Technology is Concerned

[Provide a brief description of the program and research environment wherein the EAR item(s) and related dual use technology are concerned; include any special aspects, including whether any portion of the research will be conducted outside the laboratories and offices identified in this TCP; whether the research involves non-TAMU collaborators within or outside the U.S; and whether the research requires the transfer (domestic or international) of any EAR dual use-controlled research instrument, software, material or technology.]

3.0 TCP Oversight: Roles and Responsibility

The following individuals are responsible for implementing the provisions of this TCP.

<u>Position</u>	<u>Name</u>	<u>Email</u>	<u>Phone</u>
Responsible Individual			
Export Control Coordinator (herein referred to as Export Administrator)	Amber Oehlke	aoehlke@tamu.edu	979-458-8484
Facilities Manager			
IT Manager			

3.1 Responsible Individual (RI)

The RI on the program determines, exclusively, who will participate in program research requiring access to dual use technology. Any individual who wishes to gain access to the laboratories where such research is conducted must first seek authorization from the RI, whose TCP oversight responsibilities include the following:

- a. In coordination with the Export Administrator, approving research participants [and in the case of inter-institutional collaboration, coordinating authorized research participation with non-TAMU participants]
- b. Approving facility/laboratory access applicable to all research participants (faculty, staff and students), including locked storage for controlled equipment and hard copy technical data , and coordinating security measures with the Facility Manager
- c. Communicating TCP requirements with all research participants and obtaining TCP Acknowledgement Certifications from each participant as well any Sponsor-required NDAs
- d. Coordinating with the IT Manager and approving all levels of IT access to controlled technical data and software, data storage, laptop and desk top usage, transfer data, and termination of access privileges where required
- e. Coordinating with TAMU’s Export Administrator for ongoing training and monitoring of TCP requirements

- f. Ensuring that terminating research participants are reminded of ongoing confidentiality requirement
- g. Notifying TAMU's Export Administrator about potential TCP breaches and coordinating resolution

3.2 TAMU's Export Administrator

TAMU's Export Administrator has overall responsibility for ensuring that the provisions of this TCP are adhered to. This includes

- a. Performing classification determination of dual use items (including related dual-use) and communicating potential foreign national restrictions to Responsible Individual
- b. Assisting as necessary in the process of confirming U.S.-Person status of authorized participants and, potentially, applying for deemed export licenses or confirming license exemption requirements
- c. Working with Responsible Individual, the Facility Manager, and the IT Manager to ensure that all security measures prescribed by this TCP align to EAR requirements and can be pragmatically implemented in support of the research program
- d. Ensuring that program/research participants are sufficiently trained on TCP requirements and have signed the Acknowledgement Certification
- e. Responding to inquiries from faculty, students and staff pertaining to export control with respect to this TCP
- f. Responding to any potential breaches of TCP requirements, in the event this occurs
- g. Conducting periodic monitoring of TCP compliance
- h. Advising terminating research participants of their ongoing confidentiality obligation
- i. Maintaining TCP records such as Acknowledgment Certifications, EAR classification information, confirmations of U.S. person status, etc.

3.3 Facilities Manager

The Facilities Manager shall be responsible for helping ensure the controlled laboratories or facilities are secured by appropriate means such as lock/key, electronic key, or electronic badging and/or badge. Specific responsibilities include

- a. Coordinating with Responsible Individual on laboratory/facility entrance controls
- b. Coordinating with the Responsible Individual person how the dual use items shall be secure within a particular laboratory or office (for example locked cabinets or storage space)
- c. Ensuring that TAMU facilities staff members with access for the program laboratories are aware of these restrictions
- d. As applicable, and with respect to shared laboratory environments (housing other research programs where dual use technology is not an issue), coordinating laboratory

occupancy consistent with TCP security requirements (may also require a specially designated laboratory or office manager for this purpose)

3.4 IT Manager

The IT Manager shall be responsible for various IT security measures (as applicable to the EAR items) with respect to approved access to [Program/Research/Laboratory] computers, network and intranet systems, and secured data files as authorized by Responsible Individual. Specifically these responsibilities include

- a. password protection of all research participants
- b. dedicated server EAR-specific directory security
- c. data file marking/designation, as applicable
- d. establishing read/write privileges as authorized
- e. control of laptops, desktops, intranet controls
- f. encrypted functions for data transfer where required
- g. terminating access rights where required
- h. testing all security protocols on an ongoing basis, reporting results back to Responsible Individual and Export Administrator on a periodic basis.
- i. ensuring that all other IT personnel supporting program are appropriately aware of and trained for TCP control purposes

4.0 **[Identify Laboratories/Offices/Physical Locations] Subject to TCP Requirements**

[Identify and describe exactly which laboratories or offices are covered under the TCP and who is authorized to access: for example:]

Dedicated Laboratories

- a. [Lab # XXXX/Building Name/#]: access to this dedicated laboratory is strictly controlled by lock/key access.
- b. Only Responsible Individual and other persons as authorized by the Responsible Individual have keys (or other approved means) to this Laboratory.

Shared Laboratories

[Note: while shared laboratories are not preferred with respect to conducting activities involving the sharing of dual use technology, this scenario may be unavoidable; hence, special measures must be taken to secure such technology and items. See example below.]

- a. [Lab # YYYY/Building Name/#]: This laboratory is shared with other research programs whose participants may have access to such work space.

- b. Only persons authorized by the Responsible Individual are permitted to have access to the dual use technology which are secured within the shared laboratory, consistent with EAR restrictions. [Note: see also section below on **Secured Storage and Use**. A shared laboratory environment may also require additional coordinating measures by the Facilities Manager or specially designated Laboratory or Office Manager].

5.0 EAR Items and Technology Controlled

The following items are subject to this TCP. While some items include research instruments, materials, or other hardware components physically located in the above-referenced laboratories, other items may consist of software and technical data accessible through computer-based network accounts. (See also Section below pertaining to visual access and data transfer restrictions and safeguards).

ITEM	DESCRIPTION	ECCN	REASON FOR CONTROL	SERIAL #

Only the Responsible Individual and/or his/her delegated person shall authorize who shall participate in the segment of research wherein the above-referenced EAR dual use controlled technology is part of the research or contractual activity.

6.0 Individuals Authorized to Participate in the Research with Access to EAR Technology and Items

As noted in the **Introduction**, and subject only to authorized exception, only U.S. persons as defined in the EAR and confirmed by the TCP Owner and Export Administrator shall participate in the [research/program] that requires use and access to dual-use technology. The U.S.-person status of all new participants must be objectively confirmed by appropriate TAMU staff prior to a person’s assignment or participation in the research/program.² An exception to this requirement is only applicable when the Export Administrator has determined that a particular foreign national’s citizenship is not restricted for purposes of the particular technology involved; or if restricted, an export license is obtained from the Department of Commerce prior to engagement in the controlled activity; or a license exception is confirmed as applicable.

For the list of individuals currently authorized to participate in the research and who have signed the TCP Acknowledgement Certification, refer to **Appendix 1** attached. This Appendix shall be revised as necessary according to student, faculty and personnel changes. Only Responsible Individual is authorized to designate which individuals shall participate in the research.

² Note: Consult TAMU’s HR Department or Export Control Office for appropriate confirmation procedures. Proof of I-9 documentation does not necessarily confirm U.S. person status. The same level of documentary evidence required by E-Verify (e.g., U.S. passport, birth certificate, or Permanent Residence Card) confirms U.S. person status.

7.0 Secured Storage/Use of EAR Dual-use Controlled Technology and Items

All noted EAR dual use-controlled technology and items housed in any of the TCP-controlled laboratories shall be secured; in a shared laboratory environment, this may mean securing such items in a locked cabinet or by other means when not in use by authorized research participants. Only those individuals authorized to access the laboratories shall have keys to these secured cabinets/areas.

With respect to shared laboratory environments, such laboratories shall only be used by research participants when such use does not compromise EAR deemed export requirements. When laboratory research is being conducted using the EAR dual use-controlled technology, the laboratory must then be restricted from entry by non-authorized researchers/personnel, until such time as such controlled technology or items are removed and secured. This may require temporary door signage advising researchers and other personnel that's the area is restricted for U.S. Export Control purposes until such signage no longer appears on the door, etc.

8.0 Secured access to EAR-Controlled Technical Data Files (soft and hard copy) Associated with EAR Items

[Note: these items may require some specific customization depending on the research requirements]

The IT Manager shall coordinate with Responsible Individual to ensure security pertaining to the storage of EAR dual-use controlled data files, including any special server access and/or maintenance features.

Responsible Individual in coordination with the IT Manager shall assign password-protected access to the computers by which EAR controlled technical data and software is accessed. This authorization is required for all approved research participants accessing such data and/or software.

Use of laptops: Responsible Individual in coordination with the IT Manager will set up and secure designated university laptops for lab-based research involving use of the identified dual-use data and technology. No personal laptops will be permitted to access such data and technology [except potentially those that used by Responsible Individual or designated person.]

As approved by Responsible Individual and communicated to the IT Manager, only certain individuals as authorized shall have Read/Write privileges. All other Program participants shall have Read privileges only, again based on Responsible approval and his/her communication to the IT Manager.

All EAR dual use-controlled data pertaining to the dual use controlled item (e.g. equipment or software) shall be archived in a designated secured directory; all such files shall be marked with following designation: "EAR-controlled Technical Data: For Approved Access/Use Only: Transfer without Authorization Strictly Prohibited." The directory name will be [name EAR controlled directory].

All controlled hard copy documentation pertaining to these EAR items shall remain secured and, when in use, remain under the direct oversight or supervision of the research participant. When hard copies of controlled technical data are not in use, they shall be stored in locked cabinet(s) within the controlled laboratory (laboratories) to which only designated research participants have keys.

At no time may any hard copy documentation be reproduced by any electronic photographic means, including photocopy machines, unless otherwise authorized by Responsible Individual.

At no time may USB jump drives or CD's be used to download controlled technical data.

9.0 Restrictions on Transfer of EAR Dual Use-Controlled Technology and Items/Confidentiality of Technical Data

Under no circumstances may the EAR dual use-controlled items and commodities covered under this TCP be removed from the TCP-controlled laboratories for any purpose, unless otherwise authorized by Responsible Individual and the Export Administrator.

Likewise, under no circumstances may the corresponding controlled technical data and software be electronically transferred for any reason to any individual outside the approved list of research participants unless authorized by Responsible Individual and the Export Administrator.

Prohibited transfer applies to the following situations:

- a. electronically sending any data item or software to an unauthorized individual
- b. downloading it to a CD and providing it to an unauthorized individual
- c. making hard copies and providing them to an unauthorized individual
- d. verbally communicating content to an unauthorized individual
- e. allowing visual contact by an unauthorized individual to a controlled item

10.0 Travel Restrictions Pertaining to Laptops

Under no circumstances may a research participant travel outside the United States with a laboratory -issued laptop that contains the EAR dual use-controlled dual use data. There are no exceptions to this restriction.

In order to sufficiently protect the *authorized* email transfer of EAR controlled-data within the allowable research program parameters, email communication shall alert the recipient that EAR controlled technical data is either attached to the email or, depending on the situation, indicate that EAR content is embedded in the content of the email and that unauthorized transfer is prohibited.

11.0 Terminating Research/program Participation: Ongoing Confidentiality Requirement

If a research participant terminates participation in the research or program, Responsible Individual in coordination with the IT Manager shall ensure that all access privileges to the TCP-controlled

Laboratories and access to EAR dual use-controlled data (soft and hard copy) are immediately terminated.

Consistent with the TCP Acknowledgment Certification, such participants shall be advised by the Responsible Individual or Export Administrator of their ongoing obligation to maintain strict confidentiality about any EAR-controlled aspect of the research including operation of controlled equipment and software and the content of controlled technical data known to this person.

12.0 Notification of Potential TCP Breach/Violations

Any suspected breach of the foregoing TCP controls and any known violation shall be reported immediately upon discovery of said fact to one of the following:

The Responsible Individual:

[Name, title]

Email:

Telephone:

The Export Administrator:

Amber Oehlke

Email: aoehlke@tamu.edu

Telephone: (979) 458 8484

13.0 Required Recordkeeping

The following records (as applicable) shall be maintained by the Export Administrator in connection with this TCP:

- a. Classification determinations leading to the restrictions outlined herein
- b. List of all researchers approved for EAR item access and use
- c. Copies of all signed TCP Acknowledgment Certifications
- d. Copies of all Non-Disclosure Agreements (NDA's) signed with another institution associated with research Program
- e. Copies of any export license or exemption approvals obtained to allow foreign national access to the controlled items
- f. [Other]

14.0 Required Training

All research personnel who are authorized to access and use the EAR technology and item(s) herein referenced shall receive training on the provisions of this TCP; all research personnel must also complete "Export Controls & Embargo Training - Basic Course", course number 2111212 in TrainTraQ. Until such time as an intended research participant receives such training and signs the Acknowledgment Certification form below, no access to the EAR dual use-controlled items shall be permitted.

15.0 TCP Revisions

All revisions to this TCP shall be authorized only by The Responsible Individual, Export Administrator, Facilities Manager, and IT Manager. When such revisions are made, they shall be incorporated in an updated TCP that is clearly designated by Revision Number and Date.

TEMPLATE

Responsible Party Acknowledgment and Certification of TCP

TCP#: _____

The Responsible Parties (defined as The Responsible Individual, Export Administrator, Facilities Manager, and IT Manager) are to sign as indicated below.

By signing this Acknowledgement and Certification, The Responsible Parties confirm they have read and fully understand the export compliance responsibilities contained in this Technology Control Plan. As such, The Responsible Parties commit to upholding all such requirements without exception or reservation.

The Responsible Parties understand that they could be held personally liable if they unlawfully allow access to or disclose, regardless of form or format, export-controlled information, technology, software, or items to unauthorized persons.

The Responsible Parties understand that the law makes no specific exceptions for non-US students, visitors, staff, postdocs or any other person not pre-authorized under a TCP to access export controlled information, technology, software or items.

Signature: _____
[Responsible Individual]
[Official university title]

Date: _____

Signature: _____
Amber Oehlke
Export Control Coordinator

Date: _____

Signature: _____
[Facilities Manager]
[Official university title]

Date: _____

Signature: _____
[IT Manager]
[Official university title]

Date: _____

Participant Acknowledgment and Certification of TCP

TCP#: _____

Research participants, Responsible Individual, and Export Administrator are to sign as indicated below:

I, [research participant name], have read and fully understand the export compliance responsibilities contained in this Technology Control Plan and have received training on this TCP. As such, I commit to upholding all such requirements without exception or reservation.

I understand that I could be held personally liable if I unlawfully allow access to or disclose, regardless of form or format, export-controlled information, technology, software, or items to unauthorized persons.

I understand that the law makes no specific exceptions for non-US students, visitors, staff, postdocs or any other person not pre-authorized under a TCP to access export controlled information, technology, software or items.

I agree to immediately contact the Responsible Individual or Export Administrator as designated in this TCP with any questions I may have regarding the designation, protection, or use of export-controlled information, technology, software, or items.

Signature: _____

Date: _____

[Participant name]
Research Participant

Countersigned Below:

Signature: _____

Date: _____

[Responsible Individual]
[Official University Title]

Signature: _____

Date: _____

Amber Oehlke
Export Control Coordinator

Appendix 1

Authorized Personnel

Name	Citizenship	Date of Export Control Training

TEMPLATE