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# Nuclear Fundamentals Orientation

## Module 1

### Export Control Overview

**Export Control Team**  
**Office of Classified and Controlled Information (ALDDPP-CL)**  
**Associate Laboratory Director for Defense Protection Program (ALDDPP)**



Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA



# Export Control Team's Mission: Export Compliance

- The Export Control Team's mission is to ensure institutional compliance with US federal export control and import regulations in support of LANL's mission and programs with foreign involvement.
- Responsible for the analysis of export licensing requirements/export classifications/export authorizations of:
  - Feynman Center intellectual property (IP) agreements,
  - Foreign visits,
  - LANL patents,
  - LANL developed code,
  - LANL equipment/material shipment exports, and
  - ECI reviews.
- Responsible for oversight of LANL import shipments requiring U.S Customs clearance and LANL customs broker management.
- Laboratory Export Control Policy P805.
- Director Level Commitment to Export Control Compliance – Thom Mason LANL-all Export Policy email.



# Laboratory Export Control Policy

**From:** [owen-jarl-all@mailis.lanl.gov](mailto:owen-jarl-all@mailis.lanl.gov) on behalf of [Distributions](#)  
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**Subject:** LANL-ALL3054: Laboratory Export Control Policy  
**Date:** Monday, June 7, 2021 2:29:41 PM

**To:** LANL-ALL

**From:** Thom Mason, DIR, A100

**Phone:** 505-667-5101

**Symbol:** DIR-21-057

**Date:** June 7, 2021

**Subject:** Laboratory Export Control Policy

The United States government strictly regulates all exports of products, technology, and software. Export regulations are designed to protect items and information critical to maintaining national security and foreign policy interests for the United States. Export controls apply to activities including discussions with foreign nationals and the transfer of equipment. Failure to comply with these regulations may result in the imposition of criminal and/or civil fines and penalties, including loss of export privileges, and employees may be subject to disciplinary action and/or termination.

Los Alamos National Laboratory is committed to compliance with all U.S. export control laws and regulations. As a national laboratory with a critical national security mission and important international collaborations, it is imperative that the Laboratory be a responsible exporter. In support of national security, U.S. and global efforts to fight the battle against terrorism, and the legal responsibilities and business interests of this company, the Laboratory has a robust Export Control Program. See [Laboratory Policy P805, Export Control](#) for requirements.

It is essential that all employees are familiar and compliant with export controls. Under no circumstances will exports be made contrary to U.S. export regulations by any individual operating on behalf of the Laboratory. Unauthorized transfers, even of low-level technology, could potentially jeopardize national security or further the development of weapons of mass destruction.

In accordance with P805, the Associate Director for Environment, Safety, Health, Quality, Safeguards, and Security (ESHQSS) is responsible for implementing LANL's Export Control Program requirements and overseeing the activities of the Export Working Group (EWG). The EWG is an advisory group that assists Laboratory management with export/import regulation reviews and implementation.

The following table lists areas of expertise and the organization responsible.

| Expertise/Organization   | Phone/Email  |
|--|--|
| Export of commodities, technical data and software/ Export Control | 665-2194, <a href="mailto:export@lanl.gov">export@lanl.gov</a>                   |
| Unclassified Foreign Visits & Assignments                          | 665-1572, <a href="mailto:foreignvisits@lanl.gov">foreignvisits@lanl.gov</a>     |
| Foreign Travel   | 665-3096, <a href="mailto:stforeigntravel@lanl.gov">stforeigntravel@lanl.gov</a> |
| LendIT for Laptops/Phones on Foreign Travel (LoFT)                 | 665-4444 Option 6, <a href="mailto:LendIT@lanl.gov">LendIT@lanl.gov</a>          |

Please contact Export Control at 665-2194 with any questions.

# What is Export Control?

- A group of federal laws / regulations that control the distribution of certain commodities, technologies, and software to non-U.S. entities or individuals.
- Designed to protect items and information critical to maintaining national security, economic security, cyber security, and homeland security.
- Applies to tangible shipments (including hand-carried items) and non-tangible methods such as visual, electronic, and verbal transfers.
- At LANL, these controls affect foreign national hire, foreign shipments, foreign collaboration, Controlled Unclassified Information (CUI), technology transfers, code development, patents and publications.



# Key Federal Export Regulators



- **Department of State's International Traffic in Arms Regulations (ITAR), 22 CFR**
  - The ITAR's control list is the [United States Munitions List \(USML\), 22 CFR 121](#)
- **Department of Commerce's Export Administration Regulations (EAR), 15 CFR**
  - The EAR's control list is the [Commerce Control List \(CCL\), 15 CFR 774, Supplement 1](#)
- **Department of Energy's Assistance to Foreign Atomic Energy Activities, 10 CFR 810**
- **National Nuclear Security Administration's (NNSA) NAP 476.1, an export policy on the export and import of classified and unclassified nuclear weapon-related items authorized by the Atomic Energy Act of 1954, as Amended.**
  - The NAP's control list is [The Tier List](#).
- **Nuclear Regulatory Commission, 10 CFR 110**
- **Dept. of Treasury Office of Foreign Assets Control (economic and trade sanctions based on U.S. foreign policy and national security goals).**

## Export Control plays a part in the following DOE Orders:

- DOE O551.1D Official Foreign Travel
- DOE O205.1B Cyber Security Management Program
- DOE O142.3B Foreign Visits and Assignments
- DOE O241.1B Scientific and Technical Information Management
- DOE O471.3 Identifying and Protecting Official Use Only Information
- DOE O481.1C Strategic Partnership Projects
- DOE O482.1 DOE Facilities Technology Partnering Programs (User Facilities)
- DOE O483.1 Cooperative Research and Development Agreements
- DOE O484.1 Reimbursable Work for Department of Homeland Security

# Export Examples at LANL



- What **ITAR** looks like at LANL: High Explosive materials; Centerra firearms, ammunition, armored vehicles and PPE; Unmanned Aerial Vehicles (UAVs); Radioisotope Thermoelectric Generators (RTGs); satellites for DOD.
- What **EAR** looks like at LANL: High Performance Computing, Additive Manufacturing, Radiation Detectors, Fuel Cell technology, COVID and HIV research.
- What **NRC** looks like at LANL: Medical Radioisotope shipments; sample shipments of depleted uranium.
- What **NAP 476.1** looks like at LANL: JOWOGs (joint working groups with AWE and/or the MOD); EIVRs (technical exchanges with AWE and/or the MOD); DARHT; design agency work.
- What **DOE 810** looks like at LANL: MCNP (LANL code) trainings to foreign nationals; EMIS (Electromagnetic Isotope Separations); nuclear reactor development.

# Definitions

- **Export** - the transfer or transmission of any commodity (equipment or hardware), controlled technology (technical data or information), or software (commercial and/or LANL developed) to any non-U.S. person or entity inside or outside of the U.S. by any means (shipment, visual, electronic, or verbal transfer).
- **Deemed export** - to provide controlled technology via oral, visual or verbal disclosure to a foreign national within the U.S. This is “deemed” to be an export to that foreign national’s home country. A deemed export is ECI.

# Definitions continued....

- Foreign national - someone who is not a U.S. citizen or a U.S person.
- Permanent Resident Alien (PRA, aka Green Card Holder) – someone who has been granted authorization to live and work in the United States on a permanent basis. All U.S. federal export regulators recognize PRAs as U.S. persons (note NOT the same thing as a U.S. Citizen) and as such, are exempt from export control. **However, because the DOE Foreign Visits Order 142.3A considers anyone who is not a US citizen to be a foreign national, a Foreign Visits Tracking System (FVTS) record is required for LANL PRA employees.**

# Definitions continued....

- Export Controlled Information (ECI) - Technology that is **NOT** made publicly available/openly published/appropriately placed in the public domain is export controlled and considered ECI.
- Within DOE/NNSA, ECI is considered a subset of OUO by the DOE Office of Scientific and Technical Information (OSTI) and in DOE directives (P204-1, Section 3.6.3.b). ECI is marked and handled as OUO, with the marking OUO/ECI. Admonishment statements required by export control regulations are placed on such documents in addition to OUO markings (P204-1, Section 3.6.8, bottom of pg. 7 to middle of pg. 8).
- **HOWEVER**, note that ECI can be separate from OUO and stand on its own as just ECI.

# ECI Examples at LANL

- ☒ Official Use Only (OUO). See LANL P-204.1.
- ☒ Los Alamos Controlled Publication, OUO (LA-CP)
- ☒ Triad Proprietary Information (TPI)
- ☒ Personally Identifiable Information (PII)
- ☒ Protected Health Information (PHI)
- ☒ Unclassified Controlled Nuclear Information (UCNI)
- ☒ ECI NAP 476.1 Tier 1 information (Classified)
- ☒ ECI NAP 476.1 Tier 2 information (OUO/ECI)
- ☒ ECI NAP 476.1 Tier 3 information (ECI)
- ☒ Source code access by foreign nationals within the US.
- ☒ LANL Critical Information (CI)
- ☒ LANL drawings, blueprints, schematics, etc., that are marked as ECI or where a PI wants to restrict the distribution (US vendor only, for example).



**Why? Because all of the above are categories of protected (i.e., not openly published or placed in the public domain) information/technology/software.**

**ONLY information/technology/software placed in the public domain or openly published is exempt from export control.**

# Information/Technology/Software Exempt from Export Control



## Information/Technology/Software becomes exempt from export control through:

- a. Open publication, publicly available (i.e., LA-UR release available on OSTI.gov or LANL open source software on GitHub);
- b. Existing in the public domain (i.e., existing as a book, journal, or report readily available through a library or subscription service);
- c. Sponsor approval for open publication (which results in an LA-UR release).

## What does this look like at LANL?

- Open, Public Unrestricted (i.e., LANL code approved for open source release)
- Designated Unclassified Subject Area (DUSA)
- Los Alamos Unrestricted Release (LA-UR, available at OSTI.gov)
- Fundamental Research under National Security Decision Directive (NSDD) 189

# What is Fundamental Research under NSDD189?

[National Security Decision Directives (NSDDs)]

[stamped:] UNCLASSIFIED

September 21, 1985

## NATIONAL POLICY ON THE TRANSFER OF SCIENTIFIC, TECHNICAL AND ENGINEERING INFORMATION

### I. PURPOSE

This directive establishes national policy for controlling the flow of science, technology, and engineering information produced in federally-funded fundamental research at colleges, universities, and laboratories. **Fundamental research is defined as follows:**

**'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.**

# Fundamental Research Takeaways

- **Fundamental research is distinguished from proprietary research or research subject to specific government or national security restrictions.**
- **The ability to freely publish and disseminate research without restriction is the primary requirement in determining if a research program meets the standards for fundamental research.**
- **Only information that arises during or results from fundamental research are potentially exempt from export control obligations. Specifically, under no circumstances is the transfer of export-controlled material, technology, or know-how exempt from export control requirements.**

# ECI and Foreign Nationals

All LANL Foreign National employees, cyber visits, onsite and (some) offsite visits require an FVTS entry. Contact: Unclassified Foreign Visits & Assignments Office, [foreignvisits@lanl.gov](mailto:foreignvisits@lanl.gov).

- Foreign nationals are not excluded from access to **OUO/ECI** if they have Need To Know (NTK) **AND** access is reviewed and approved by the Export Control Team.
- Foreign nationals are not excluded from access to **ECI BUT** access must **FIRST** be reviewed and approved by the Export Control Team.
- Requests for LANL foreign national employee access to ECI or OUO/ECI are reviewed and approved through the Foreign Visits Tracking System (FVTS).

**NOTE:** Because of their status as a U.S. person, PRA's (aka, Green Card holders) are exempt from export control approval for access to ECI or OUO/ECI. However, such access must be included in a PRA's work scope per DOE Foreign Visits Order 142.3A.

# NAP-476.1, Atomic Energy Act Control for Import and Export Activities

- The Atomic Energy Act of 1954, as amended (AEA), provides the Department of Energy unique authority to perform a broad range of activities related to nuclear weapons. NAP-476.1 is NNSA's policy letter addressing the policy and the procedures for nuclear weapon-related import and export activities ([including US procurement for component/part builds](#)) under the Atomic Energy Act.
- For physical shipments to and from AWE and/or the MOD, contact the LANL United Kingdom Program Office (UK PO) to initiate a shipment request. Email [ukprogram@lanl.gov](mailto:ukprogram@lanl.gov).
- For US procurements, **PRIOR** to providing a Tier 2 document (OUO/ECI) to a US vendor, contact the Weapons Quality Procurement Team to initiate a weapons procurement NDA. Email [wqpe@lanl.gov](mailto:wqpe@lanl.gov) .
- The Export Control Team can help determine if you have Tier 2 document.
- Email: [export@lanl.gov](mailto:export@lanl.gov).

# Export Systems at LANL

- **Foreign Visits and Assignments Tracking System (FVTS)** – the approval system for foreign national participation/hire and access to DOE sites, unclassified information/projects, and technologies. This system is managed by the **Unclassified Foreign Visits & Assignments Group (UFV&A)**.
- **Richard P. Feynman Center for Innovation's (FCI)** various intellectual property (IP) submission modules: eIDR (software disclosure); Non-Disclosure Agreements (NDA); Commercial Research and Development Agreements (CRADAs); Strategic Partnership Projects (SPP), etc.
- **Exhibit G's** for foreign participation/involvement in LANL subcontracts.

# Export Systems at LANL continued....

- **LANL-Ship System** – online non-hazardous shipping request system managed by the Materials Management Shipping Warehouse for all of LANL’s domestic and international shipments.
- **RASSTI (Review & Approval System for Scientific and Technical Information)** is an electronic submission system which assigns:
  - **LA-UR numbers** to unclassified, unrestricted documents intended for public release.
  - **LA-CP numbers** to controlled unclassified documents (CUI).

# Export Violations

## LANL Violations

- 2000 - EAR export violation for exporting equipment to Russian denied entities under DOE's Material Protection, Control and Accounting Program (MPC&A), designed to reduce the threat to U.S. national security posed by unsecured Russian weapons-usable nuclear material. The commodities consisted of devices for measuring nuclear material, a communications router, a computer and a printer. This violation results in the formalization of LANL's Export Compliance Program.
- 2017 – ITAR export violation for a LANL employee's inclusion of equation of state (EOS) data in a high explosives publication without prior Dept. of Defense (DoD) approval. The data was extracted from a database that was marked OUO/ECI. Because the data was owned by branches of the DOD, of which not all of the data was in the public domain, DoD approval was required prior to publishing the data.

## Industry Violations:

- 2007 – ITAR violation: ITT's illegal exports of night vision equipment and technical data (including Classified information) to China, Singapore and the UK. ITT's corporate was criminally indicted by the DoJ and ITT was levied the largest monetary fine to date, \$100M. This violation was viewed as a huge hit to National Security due to the loss of battlefield advantage by the US and our closest allies.

# Contact Info

- DFS-CL, Export Control Team
- Team phone: 505-665-2194
- Team email: [export@lanl.gov](mailto:export@lanl.gov)
- homepage: [https://int.lanl.gov/org/ddops/alदेशqss/defense-security/security/protective-force-operations/export\\_control/index.shtml](https://int.lanl.gov/org/ddops/alदेशqss/defense-security/security/protective-force-operations/export_control/index.shtml)



# Thank you!

## Questions?



Email us: [NFO@lanl.gov](mailto:NFO@lanl.gov)