

Exceptional service in the national interest



Export Control Briefing: Awareness Ensures Compliance

**Presentation at Export Control Coordinators Organization Training Seminar
by Jim Wilhelm, Sandia National Laboratories, Livermore, CA**

Unclassified Unlimited Release (UUR) SAND #2013-6719C



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Export Control Briefing: Awareness Ensures Compliance

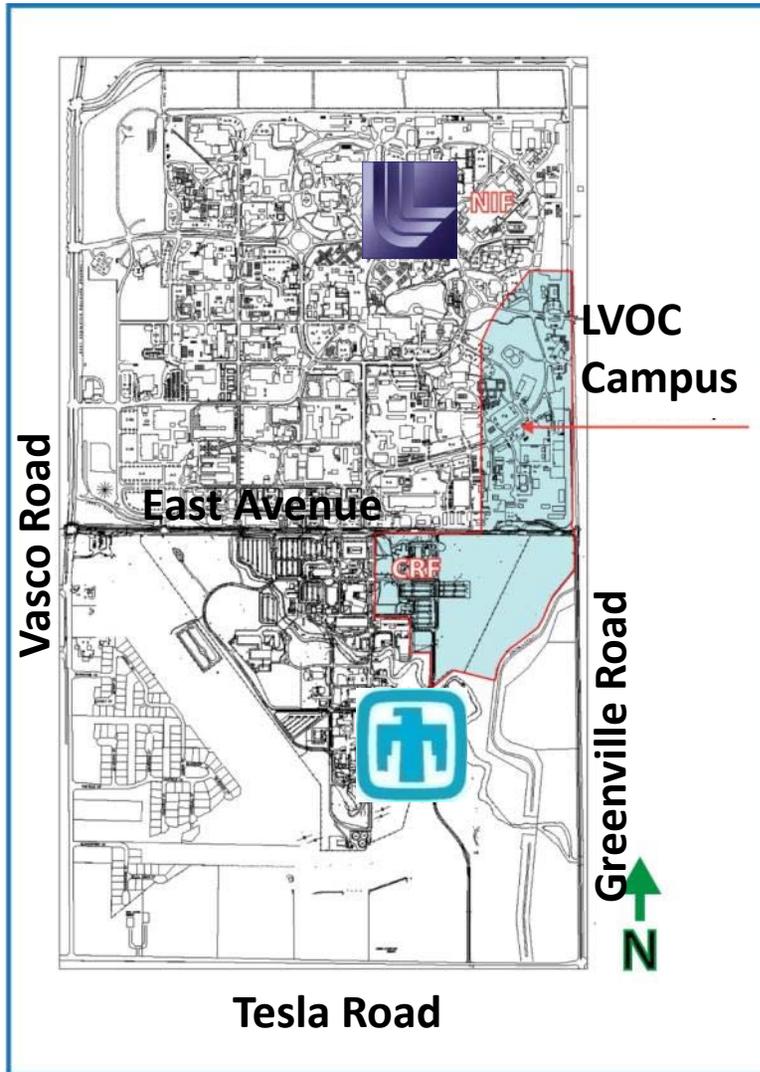
- **PROBLEM:** Increased risk of unintentional export of technical data/information and defense services to Foreign Nationals on site
 - Staff uncertainties about what is export controlled
 - Increasing number of Foreign Nationals on site

- **SOLUTION:** Export Control briefings targeted to each department's area of R&D and labs
 - Determinations before briefings
 - Interactive briefings with management and staff

PROBLEM: Risk of Unintended Exports to Foreign Nationals on Site

- Risk of unintentional export to Foreign Nationals on site due to staff uncertainties about:
 - What aspects of their R&D is export controlled?
 - Are Foreign Nationals allowed to use export controlled lab equipment or material?
 - When does research become export controlled?
- Increasing number of Foreign Nationals on site
 - More staff and post-docs
 - Increasing number of visitors in General Access Area
 - Easy access
 - GAA badges do not distinguish FN from U.S. Person

Livermore Valley Open Campus builds on existing facilities and programs at LLNL and SNL



National Ignition Facility

International Center for High Energy Density and Inertial Fusion Energy Science



High Performance Computing Capabilities and Facilities



Combustion Research Facility

Transportation Energy Center

SOLUTION: Export Control briefings targeted to each department's area of R&D and labs

- Determinations before briefings
 - Export Control compiles relevant categories from USML and CCL
 - Department managers identify parts of USML Categories and ECCNs that are relevant to the department's R&D and labs
 - Export Control targets briefing to relevant parts of USML Categories and ECCNs
- Interactive briefings with management and staff
 - Why concerned about Export Control?
 - What is Export Controlled, to Where, and Why?
 - When does R&D and Technology become Export Controlled?
 - How will we control these items?

Our Biological Science Program is Focused on Two Strategic R&D Areas

Biofuels

Transportation Biofuels

Civilian and Military Use

Sustainable Fuels,
Coupled to co-products
and carbon utilization

Biodefense

Civilian Biodefense

Military Force Protection

Emerging Infectious
Diseases and Public
Health

Supported by differentiating Sandia capabilities in advanced chemical imaging, microfluidics, and computational biology



Extensive Experience with Developing μ bioanalytical Systems

Infectious Disease Diagnostics
Environmental monitoring
Space applications
Toxin Diagnostics
Biodosimetry

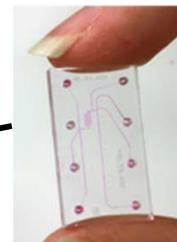
DHS CBNP

- Sample Prep
- Viruses
- Sensitivity
- Methods

NIDCR IMPOD



NIAID RapiDx Toxin Diagnostics



NIDCR Human Oral Microbiome

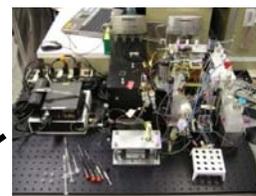
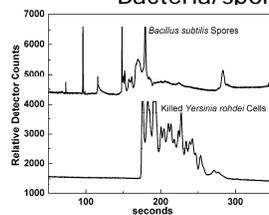
DOE CBNP

- Separated Gas/Liquid
- Liquid-phase Biotoxins



DoD TTP

- Sample prep
- Bacteria/spores



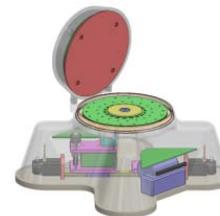
DHS BioBriefcase

DoD DTO.50

- Autonomous operation
- Bio-aerosols

MISL LDRD CytoDx

SNL LDRD SpinDx



SNL LDRD
 Combined Gas-phase
 Chemical agent and
 Liquid-phase
 Explosives Detector



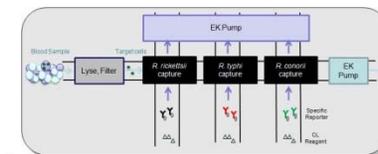
Waters CRADA

- EK-HPLC



Tenix CRADA – Unattended Water Sensor

SNL LDRD eFlowDx



1996

2012

What is Controlled:

ITAR U.S. Munitions List (22 CFR Part 121)

- I. Firearms, Close Assault Weapons and Combat Shotguns
- II. Guns and Armament
- III. Ammunition/Ordnance
- IV. Launch Vehicles, Guided Missiles, Rockets, Torpedoes, Bombs, and Mines
- V. Explosives and Energetic Materials, Propellants, Incendiary Agents and Their Constituents
- VI. Vessels of War and Special Naval Equipment
- VII. Tanks and Military Vehicles
- VIII. Aircraft and Associated Equipment
- IX. Military Training Equipment
- X. Protective Personnel Equipment
- XI. Military Electronics
- XII. Fire Control, Range Finder, Optical and Guidance, and Control Equipment
- XIII. Auxiliary Military Equipment
- XIV. Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment
- XV. Spacecraft Systems and Associated Equipment
- XVI. Nuclear Weapons, Design and Testing Related Items
- XVII. Classified Articles, Technical Data and Defense Services Not Otherwise Enumerated
- XVIII. Directed Energy Weapons
- XIX. Reserved
- XX. Submersible Vessels, Oceanographic and Associated Equipment
- XXI. Miscellaneous Articles

EXPORT CONTROLLED:

ITAR Category XIV—Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment

(a) Chemical agents

(b) Biological agents and biologically derived substances specifically developed, configured, adapted, or modified for the purpose of increasing their capability to produce casualties in humans or livestock, degrade equipment or damage crops.

(f) Equipment and its components, parts, accessories, and attachments specifically designed or modified for military operations and compatibility with military equipment as follows

(2) The detection, identification, warning or monitoring of the chemical agents and biological agents listed in paragraph (a) and (b) of this category

(3) Sample collection and processing of the chemical agents and biological agents listed in paragraph (a) and (b) of this category

*(k) Equipment, components, parts, accessories, and attachments, exclusive of incinerators (including those which have specially designed waste supply systems and special handling facilities), specifically designed or modified for destruction of the chemical agents in paragraph (a) or the biological agents in paragraph (b) of this category. This destruction equipment includes facilities specifically designed or modified for destruction operations.

*(m) Technical data and defense services related to the defense articles enumerated in paragraphs (a) through (l) of this category

**(k) and (m) cover Explosive Destruction System (EDS) in use by Center 8100*
An Export License is required to All Countries and Non-U.S. Persons

What is Controlled & Why:

Export Administration Regulations (EAR)

Dual-Use Commerce Control List

1	A	0	04
Category	Group	Reason for Control	Item No.
0-Nuclear Materials, Facilities and Equipment 1-Materials, Chemicals, "Microorganisms," and Toxins 2-Materials Processing 3-Electronics 4-Computers 5-Telecomm and Information Security 6-Sensors and Lasers 7-Navigation and Avionics 8-Marine 9-Propulsion Systems, Space Vehicles and Related Equipment	A - Equipment, Assemblies and Components B - Test, Inspection and Production Equipment C - Materials D - Software E - Technology	0: NS (National Security) and NP (Nuclear Nonproliferation) EDP (Especially Designed or Prepared) items 1: MT (Missile Tech) Dual use 2: NP (Nuclear Nonproliferation) Dual use 3: CB (Chemical & Biological Weapons) Dual use	

Dual-Use Export Controlled Biological Equipment, Materials, Software and Technology Listed in the Export Administration Regulations Commerce Control List

CATEGORY 1 - SPECIAL MATERIALS AND RELATED EQUIPMENT, CHEMICALS, "MICROORGANISMS," AND "TOXINS"

A. SYSTEMS, EQUIPMENT AND COMPONENTS

1A004 Protective and detection equipment and components, not specially designed for military use

C. MATERIALS

1C350 Chemicals that may be used as precursors for toxic chemical agents

1C351 Human and zoonotic pathogens and "toxins"

1C352 Animal pathogens

1C353 Genetic elements and genetically- modified organisms

1C354 Plant pathogens

1C355 Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals not controlled by ECCN 1C350 or by the Department of State under the ITAR.

1C360 Select agents not controlled under ECCN 1C351, 1C352, or 1C354

1C395 Mixtures and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350 Chemicals that may be used as precursors for toxic chemical agents

1C991 Vaccines, immunotoxins, medical products, diagnostic and food testing kits

D. SOFTWARE

1D003 "Software" specially designed or modified to enable equipment to perform the functions of equipment controlled under 1A004.c or 1A004.d.

E. TECHNOLOGY

1E001 "Technology" for the "development" or "production" of items controlled

Export Control Briefing: *Awareness Ensures Compliance*

for

Department 8621, Biotechnology & Bioengineering
Department 8623, Systems Biology

with

Winalee E. Carter
Empowered Official & Classification Officer, 8511

&

Jim Wilhelm
Export Control Analyst, 8511

July 18, 2013



*Exceptional
service
in the
national
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Export Control Briefing: *Awareness Ensures Compliance for Biological Science Programs*

- Why concerned about Export Control?
- What is Export Controlled, to Where, and Why?
 - *Detection Equipment and Components*
 - *Pathogens, Toxins and Genetically-modified Organisms*
 - *Technology for the Development or Production of Controlled Items*
- When does R&D and Technology become Export Controlled?
- How will we control these items?

Why Concerned: *Consequences of Violations*

- Individual
 - Fined Up to \$1 Million
 - Imprisoned Up to 10 Years
- Lockheed Martin/Sandia
 - Denied Export Privileges
 - Fined \$1 Million for Each Offense
 - Denied Privilege of Doing Business With the U.S. Government
 - Incur Substantial Negative Publicity



Why Concerned: *Laws & Regulations are Complex & Changing*

Department of State

*Arms Export Control Act (AECA)
22 U.S.C. §§ 2751-2794
International Traffic in Arms Regulations
(ITAR)
22 C.F.R. Parts 121-130*

Department of Commerce

*Export Administration Act (EAA)
50 U.S.C. app. §§ 2401-2420
Export Administration Regulations
(EAR)
15 C.F.R. Parts 730-774*

Other Government
Agencies that Govern Exports

*Department
of
Defense*

*Department
of
Treasury*

*Nuclear
Regulatory
Commission*

*Department
of
Energy*

National Security / Non-Proliferation / Anti-Terrorism

What is Controlled:

International Traffic in Arms Regulations (ITAR)

ITAR is for Defense Articles:

- Any items specifically mentioned in U.S. Munitions List (USML)
- Any item **specifically designed, developed, configured, adapted or modified for military application**
- If an item **contains a USML part**, the entire item is considered on the USML
- Spacecraft and Satellites



What is Controlled:

ITAR U.S. Munitions List (22 CFR Part 121)

- I. Firearms, Close Assault Weapons and Combat Shotguns
- II. Guns and Armament
- III. Ammunition/Ordnance
- IV. Launch Vehicles, Guided Missiles, Rockets, Torpedoes, Bombs, and Mines
- V. Explosives and Energetic Materials, Propellants, Incendiary Agents and Their Constituents
- VI. Vessels of War and Special Naval Equipment
- VII. Tanks and Military Vehicles
- VIII. Aircraft and Associated Equipment
- IX. Military Training Equipment
- X. Protective Personnel Equipment
- XI. Military Electronics
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(a) Chemical agents

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(2) The detection, identification, warning or monitoring of the chemical agents and biological agents listed in paragraph (a) and (b) of this category

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*(m) Technical data and defense services related to the defense articles enumerated in paragraphs (a) through (l) of this category

**(k) and (m) cover Explosive Destruction System (EDS) in use by Center 8100*
An Export License is required to All Countries and Non-U.S. Persons

What is Controlled & Why:

Export Administration Regulations (EAR)

Dual-Use Commerce Control List

1	A	0	04
Category	Group	Reason for Control	Item No.
0-Nuclear Materials, Facilities and Equipment 1-Materials, Chemicals, "Microorganisms," and Toxins 2-Materials Processing 3-Electronics 4-Computers 5-Telecomm and Information Security 6-Sensors and Lasers 7-Navigation and Avionics 8-Marine 9-Propulsion Systems, Space Vehicles and Related Equipment	A - Equipment, Assemblies and Components B - Test, Inspection and Production Equipment C - Materials D - Software E - Technology	0: NS (National Security) and NP (Nuclear Nonproliferation) EDP (Especially Designed or Prepared) items 1: MT (Missile Tech) Dual use 2: NP (Nuclear Nonproliferation) Dual use 3: CB (Chemical & Biological Weapons) Dual use	

Dual-Use Export Controlled Biological Equipment, Materials, Software and Technology Listed in the Export Administration Regulations Commerce Control List

CATEGORY 1 - SPECIAL MATERIALS AND RELATED EQUIPMENT, CHEMICALS, “MICROORGANISMS,” AND “TOXINS”

A. SYSTEMS, EQUIPMENT AND COMPONENTS

1A004 Protective and detection equipment and components, not specially designed for military use

C. MATERIALS

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1C352 Animal pathogens

1C353 Genetic elements and genetically- modified organisms

1C354 Plant pathogens

1C355 Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals not controlled by ECCN 1C350 or by the Department of State under the ITAR.

1C360 Select agents not controlled under ECCN 1C351, 1C352, or 1C354

1C395 Mixtures and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350 Chemicals that may be used as precursors for toxic chemical agents

1C991 Vaccines, immunotoxins, medical products, diagnostic and food testing kits

D. SOFTWARE

1D003 “Software” specially designed or modified to enable equipment to perform the functions of equipment controlled under 1A004.c or 1A004.d.

E. TECHNOLOGY

1E001 “Technology” for the “development” or “production” of items controlled

EXPORT CONTROLLED:

Protective and detection equipment and components, not specifically designed for military use, plus Software & Technology

1A004.c Detection systems, specially designed or modified for detection or identification of any of the following, and specially designed components therefor:

c.1. Biological agents ‘adapted for use in war’

1D003 “Software” specially designed or modified to enable equipment to perform the functions of equipment controlled under 1A004.c

1E001 “Technology” for the “development” or “production” of items controlled by 1A004

The above Equipment, Software and Technology is Export Controlled for National Security (NS2). An Export License is required to All Countries (including China and India) except: Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

EXPORT CONTROLLED:

Human and zoonotic pathogens and “toxins” in use by Center 8600:

Viruses, as follows:

Dengue fever virus
Eastern equine encephalitis virus
Nipah virus
Rift Valley fever virus
Venezuelan equine encephalitis virus
Yellow fever virus

Bacteria, as follows:

Bacillus anthracis
Francisella tularensis
Yersinia pestis

“Toxins”, as follows, and “subunits” thereof:

Abrin
Botulinum toxins
Clostridium perfringens toxins
Conotoxin
Diacetoxyscirpenol toxin
HT-2 toxin
Ricin

The above items, listed in ECCN 1C351, are Export Controlled as Chemical & Biological Weapons (CB1).

An Export License is required to All Countries and Non-U.S. Persons

EXPORT CONTROLLED:

Human and zoonotic pathogens and “toxins”, as follows:

Viruses, as follows:

- a.1. Andes virus;
- a.2. Chapare virus;
- a.3. Chikungunya virus;
- a.4. Choclo virus;
- a.5. Congo-Crimean haemorrhagic fever virus (a.k.a. Crimean-Congo haemorrhagic fever virus);
- a.6. **Dengue fever virus**;
- a.7. Dobrava-Belgrade virus;
- a.8. **Eastern equine encephalitis virus**;
- a.9. Ebola virus;
- a.10. Guanarito virus;
- a.11. Hantaan virus;
- a.12. Hendra virus (Equine morbillivirus);
- a.13. Japanese encephalitis virus;
- a.14. Junin virus;
- a.15. Kyasanur Forest virus;
- a.16. Laguna Negra virus;
- a.17. Lassa fever virus;
- a.18. Louping ill virus;
- a.19. Lujo virus;
- a.20. Lymphocytic choriomeningitis virus;
- a.21. Machupo virus;
- a.22. Marburg virus;
- a.23. Monkey pox virus;
- a.24. Murray Valley encephalitis virus;
- a.25. **Nipah virus**;
- a.26. Omsk haemorrhagic fever virus;
- a.27. Oropouche virus;
- a.28. Powassan virus;
- a.29. **Rift Valley fever virus**;
- a.30. Rocio virus;
- a.31. Sabia virus;
- a.32. Seoul virus;
- a.33. Sin nombre virus;
- a.34. St. Louis encephalitis virus;
- a.35. Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus);
- a.36. Variola virus;
- a.37. **Venezuelan equine encephalitis virus**;
- a.38. Western equine encephalitis virus; or
- a.39. **Yellow fever virus**.

The above items, listed in ECCN 1C351, are Export Controlled as Chemical & Biological Weapons (CB1).

An Export License is required to All Countries and Non-U.S. Persons

EXPORT CONTROLLED:

Human and zoonotic pathogens and “toxins”, as follows:

c. Bacteria, as follows:

- c.1. **Bacillus anthracis**;
- c.2. Brucella abortus;
- c.3. Brucella melitensis;
- c.4. Brucella suis;
- c.5. Burkholderia mallei (Pseudomonas mallei);
- c.6. Burkholderia pseudomallei (Pseudomonas pseudomallei);
- c.7. Chlamydomphila psittaci (formerly known as Chlamydia psittaci);
- c.8. Clostridium botulinum;
- c.9. Clostridium perfringens, epsilon toxin producing types;
- c.10. Coxiella burnetii;
- c.11. Enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing serotypes;
- c.12. **Francisella tularensis**;
- c.13. Rickettsia prowasecki (a.k.a. Rickettsia prowazekii);
- c.14. Salmonella typhi;
- c.15. Shigella dysenteriae;
- c.16. Vibrio cholerae; or
- c.17. **Yersinia pestis**.

d. “Toxins”, as follows, and “subunits” thereof:

- d.1. **Abrin**;
 - d.2. Aflatoxins;
 - d.3. Botulinum toxins;
 - d.4. Cholera toxin;
 - d.5. **Clostridium perfringens toxins**;
 - d.6. **Conotoxin**;
 - d.7. **Diacetoxyscirpenol toxin**;
 - d.8. **HT-2 toxin**;
 - d.9. Microcystin (Cyanginosin);
 - d.10. Modeccin toxin;
 - d.11. **Ricin**;
 - d.12. Saxitoxin;
 - d.13. Shiga toxin;
 - d.14. Staphylococcus aureus toxins;
 - d.15. T-2 toxin;
 - d.16. Tetrodotoxin;
 - d.17. Verotoxin and other Shiga-like ribosome inactivating proteins;
 - d.18. Viscum Album Lectin 1 (Viscumin); or
 - d.19. Volkensin toxin.
- e. “Fungi”, as follows:
- e.1. Coccidioides immitis; or
 - e.2. Coccidioides posadasii.

The above items, listed in ECCN 1C351, are Export Controlled as Chemical & Biological Weapons (CB1).

EXPORT CONTROLLED:

Animal pathogens, as follows:

Viruses, as follows:

- a.1. African swine fever virus;
- a.2. Avian influenza (AI) viruses identified as having high pathogenicity (HP), as follows:
 - a.2.a. AI viruses that have an intravenous pathogenicity index (IVPI) in 6-week old chickens greater than 1.2; or
 - a.2.b. AI viruses that cause at least 75% mortality in 4- to 8-week old chickens infected intravenously.
- a.3. Bluetongue virus;
- a.4. Foot and mouth disease virus;
- a.5. Goat pox virus;
- a.6. Porcine herpes virus (Aujeszky's disease);
- a.7. Swine fever virus (Hog cholera virus);
- a.8. Lyssa virus (a.k.a. Rabies);
- a.9. Newcastle disease virus;
- a.10. Peste des petits ruminants virus;

- a.11. Porcine enterovirus type 9 (swine vesicular disease virus);
- a.12. Rinderpest virus;
- a.13. Sheep pox virus;
- a.14. Teschen disease virus;
- a.15. **Vesicular stomatitis virus***;
- a.16. Lumpy skin disease virus;
- a.17. African horse sickness virus

Bacteria, as follows:

- b.1 Mycoplasma mycoides, as follows:
 - b.1.a. Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia);
 - b.1.b. Mycoplasma capricolum subspecies capripneumoniae ("strain F38").

*** In use by Center 8600**

The above items, listed in ECCN 1C352, are Export Controlled as Chemical & Biological Weapons (CB1).

An Export License is required to All Countries and Non-U.S. Persons

EXPORT CONTROLLED:

Genetic elements and genetically-modified organisms, as follows:

a. Genetic elements, as follows:

a.1. Genetic elements that contain nucleic acid sequences associated with the pathogenicity of microorganisms controlled by 1C351.a to .c, 1C352, 1C354, or 1C360;

a.2. Genetic elements that contain nucleic acid sequences coding for any of the “toxins” controlled by 1C351.d or “sub-units of toxins” thereof.

b. Genetically modified organisms, as follows:

b.1. **Genetically modified organisms that contain nucleic acid sequences associated with the pathogenicity of microorganisms controlled by 1C351.a to .c, 1C352***, 1C354, or 1C360;

b.2. Genetically modified organisms that contain nucleic acid sequences coding for any of the “toxins” controlled by 1C351.d or “sub-units of toxins” thereof.

Technical Notes:

1. “Genetic elements” include, *inter alia*, chromosomes, genomes, plasmids, transposons, and vectors, whether genetically modified or unmodified, or chemically synthesized in whole or in part.

4. “Genetically modified organisms” include organisms in which the genetic material (nucleic acid sequences) has been altered in a way that does not occur naturally by mating and/or natural recombination, and encompasses those produced artificially in whole or in part.

*** In use by Center 8600**

The above items, listed in ECCN 1C353, are Export Controlled as Chemical & Biological Weapons (CB1).

An Export License is required to All Countries and Non-U.S. Persons

What is Export Controlled: Fundamental Research is NOT Export Controlled

- EAR: ...“fundamental research” **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**

Fundamental Research in ITAR: Public Domain (§ 120.11)

- (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* (see also § 125.4(b)(13) of this subchapter);
- (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. *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 the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls.*

Export Control Briefing:

Awareness Ensures Compliance

- Why concerned about Export Control
- What is Export Controlled, to Where, and Why?
 - *Detection Equipment and Components*
 - *Pathogens, Toxins and Genetically-modified Organisms*
 - *Technology for the Development or Production of Controlled Items*
- When does R&D and Technology become Export Controlled?
- How will we control these items?

What is Export Controlled: **distinguishing** agents from research conducted with agents

- Human and zoonotic pathogens and toxins listed above are themselves all export controlled, including all attenuated strains; these agents must NEVER be removed from ABL without being under control of a U.S. Person (Citizen or Lawful Permanent Resident).
- Fundamental research (basic and applied, as defined above) is not export controlled. Any foreign national may conduct fundamental research with these agents.
- However, once laboratory work is sponsored by the DoD, it becomes export controlled (unless the sponsor says otherwise), and all documentation would be marked OUO/ECI. An Export License is required for any non-U.S. Person conducting this work.
- If the laboratory work is conducted for detection of biological agents ‘adapted for use in war,’ and is not sponsored by the DoD, it becomes export controlled, and any documentation would be marked OUO. An Export License is required for any foreign national conducting this work, with exception of those from countries listed below.
 - The Equipment, Software and Technology is Export Controlled for National Security. An Export License is required to All Countries except: Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

Export Control Briefing: Awareness Ensures Compliance

- **PROBLEM:** Increased risk of unintentional export of technical data/information and defense services to Foreign Nationals on site
 - Staff uncertainties about what is export controlled
 - Increasing number of Foreign Nationals on site

- **SOLUTION:** Export Control briefings targeted to each department's area of R&D and labs
 - Determinations before briefings
 - Interactive briefings with management and staff