



U.S Department of Commerce
Bureau of Industry and Security

Deemed Exports and Electronics Division

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March 20, 2007



Agenda

- EAR Background
- What are Deemed Exports?
- Deemed Export Trends
- Deemed Export Advisory Committee (DEAC)
- Licensing Process
- Work Flow – What Should You Consider
- Technology Control Plans



Authority for Export Controls

- Export Administration Act (EAA) of 1979, as amended
- International Emergency Economic Powers Act, as amended





Export Administration Regulations (EAR)

- Implement the Export Administration Act
- Apply to “dual-use” items
 - Civil as well as military use
 - Not primarily for weapons or military related use
- **Broad jurisdiction but narrow controls**



Other Regulatory Agencies

- U.S. Department of State - Directorate of Defense Trade Controls
- U.S. Department of Justice - Drug Enforcement Administration
- U.S. Department of Interior - Fish & Wildlife Service
- U.S. Department of Energy
- U.S. Nuclear Regulatory Commission
- U.S. Department of Treasury - Office of Foreign Assets Control
- U.S. Department of Commerce - Office of Patent & Trademarks
- U.S. Department of Agriculture
- U.S. Department of Health and Human Services - Food & Drug Administration



Export Control Regimes

- Wassenaar Arrangement
 - Supplement 1 to Part 743
- Missile Technology Control Regime (MTCR)
 - Supplement 1 to Part 740 (A:2)
- Australia Group (AG)
 - Supplement 1 to Part 740 (A:3)
- Nuclear Suppliers Group (NSG)
 - Supplement 1 to Part 740 (A:4)



Important EAR Terms

- “Subject to the EAR”
- Item
- Export
- Re-export
- Deemed export/release of technology
- Export Control Classification Number (ECCN)



Category

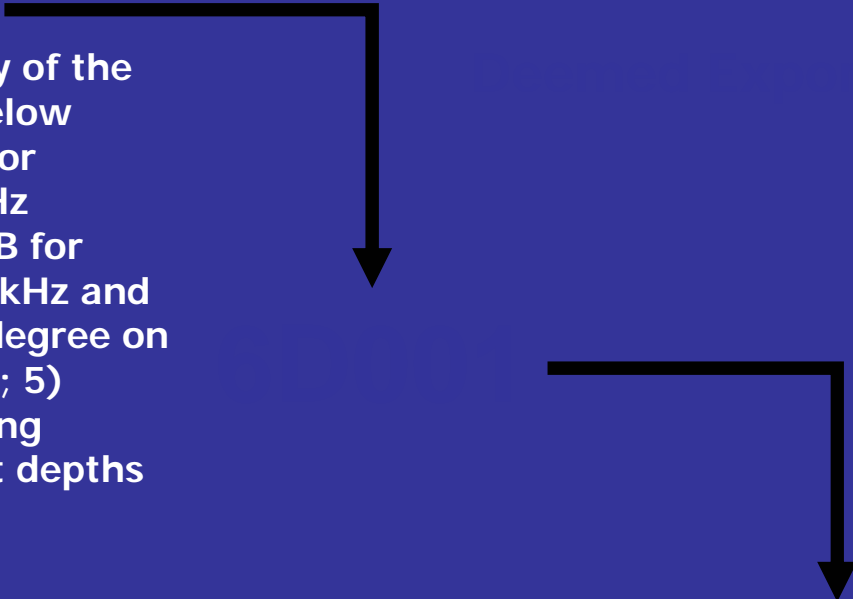
- 0 Miscellaneous / Nuclear
- 1 Materials, Chemicals, Microorganisms and Toxins
- 2 Materials Processing
- 3 Electronics
- 4 Computers
- 5 Telecommunications (Pt. 1) and Information Security (Pt. 2)
- 6 Sensors/Lasers
- 7 Navigation & Avionics
- 8 Marine Technology
- 9 Propulsion Systems, Space Vehicles & Related Equipment



Acoustics

6A001

Object detection systems having any of the following: 1) Transmit frequency below 10kHz; 2) SPL greater than 224 dB for equipment that operate 10kHz-24kHz inclusive; 3) SPL greater than 235 dB for equipment that operate between 24kHz and 30 kHz; 4) Form beams less than 1 degree on any axis operating less than 100kHz; 5) Unambiguous display range exceeding 5120m; or, 6) Withstand pressure at depths exceeding 1000m.





Product Group

A - Systems, Equipment, & Components

B - Test, Inspection & Production Equipment

C - Materials

D - Software

E - Technology



Acoustics

6A001

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Deemed Export ECCNs

6D001

Acoustics Software

6E001/2

Acoustics Technology

The deemed export rule primarily affects technology and software.



Numbering System

- 001-099 National Security
- 100-199 Missile Technology
- 200-299 Nuclear Nonproliferation
- 300-399 Chemical & Biological
- 900-999 Foreign Policy
- 980-989 Short Supply/Crime Control
- 990-999 Anti-Terrorism/United Nations



Acoustics

6A001

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Deemed Export ECCNs

6D001

Acoustics Software

6E001/2

Acoustics Technology

The deemed export rule primarily affects technology and software.



What are “Deemed Exports”

The Export Administration Regulations (EAR) define a deemed export as the release of technology or source code subject to the EAR to a foreign national in the United States. Part 734.2(b)(2)(ii).

Such release is “deemed” to be an export to the home country of the foreign national.

Situations that can involve release of U.S technology or software include:

- Tours of laboratories
- Foreign national employees involved in certain research, development, and manufacturing activities
- Foreign students or scholars conducting research
- Hosting of foreign scientist



“Deemed Export” Concerns

- The deemed export program, in place since 1994, remains an important mechanism to prevent the diversion of sensitive dual use technologies to countries and end users of concern.
- The deemed export program addresses two concerns:
 - The vital role of foreign nationals in U.S. industry and academia, contributing to the strength of our industrial base and our high-technology advantage, and ultimately our national security;
 - Foreign countries seek to illegally acquire controlled U.S. technology that could be diverted to the development of weapons programs.



The Threat – Why You Should Be Concerned

- Dangers of illegal technology transfers are very real:
 - WMD Proliferation
 - Weapon Design/Manufacture
 - Industrial Espionage
- US economy damaged by illegal technology transfers

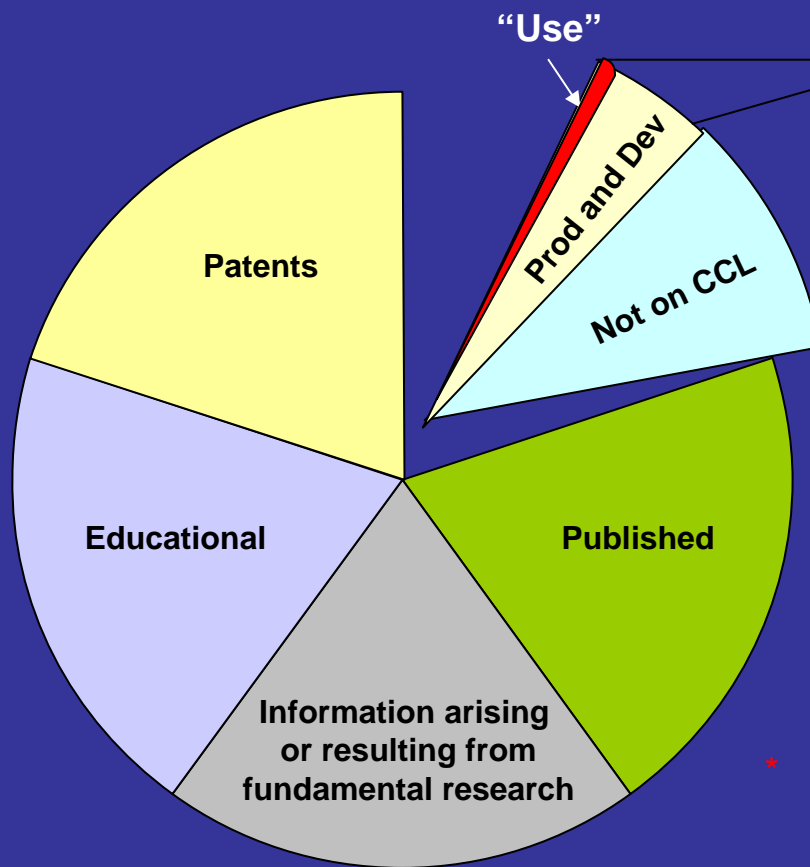


Foreign Nationals Not Subject to the Deemed Export Rule

- Any foreign national is subject to the deemed export rule except:
 - A foreign national granted U.S. citizenship;
 - A foreign national granted permanent residence status (i.e., “Green Card” holders);
 - A foreign national granted status as a “protected individual” under 8 U.S.C. 1324b(a)(3). Protected individuals include political refugees and political asylum holders.



What Technologies are Controlled Today?



Controlled

Subject to Licensing *

Not controlled

3 technology types:

“Use”

“Production”

“Development”

* With limited exceptions, EAR 99 technology is not subject to deemed export licensing

Dual Use Technology



Technology Not Subject to the EAR

- **Publicly available (EAR 734.7)**
 - **Generally accessible to the interested public**
 - **Periodicals, books, print, electronic other media forms**
 - **Libraries (university, public etc)**
 - **Open patents**
 - **Open conferences**
- **Fundamental Research (EAR 734.8)**
 - **Basic and applied research where resulting information is ordinarily published and broadly shared within scientific community**
- **Educational information (EAR 734.9)**
 - **Released by instruction in catalog courses**
 - **Associated teaching laboratories of academic institutions**
- **Patent information (EAR 734.10)**
 - **Public information available on patent application**



Recent Debate Over Deemed Export Policy

- 2004: Commerce Office of Inspector General (OIG) Report
 - Highly critical of the Deemed Export Program
- 2006: BIS published two deemed export related Federal Register Notices:
 - Establishment of Advisory Committee and Clarification of Deemed Export-Related Regulatory Requirements (71FR29301 of 05/22/06)
 - Withdrawal of the Deemed Export Advanced Notice of Proposed Rulemaking (71FR30840 of 05/31/06)
- 2006-2007: Deemed Export Advisory Committee deliberations



Scope of Fundamental Research Is Unchanged

- “Fundamental research is basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community.” (EAR Part 734.8)
- “While the product of the fundamental research is not subject to the EAR because the results of that research are intended for publication and dissemination within the scientific community, authorization may be required if during the conduct of the research controlled technology is released to a foreign national.” (71FR30840 of 05/31/06)



Scope of Fundamental Research Is Unchanged

- Fundamental research technology is not subject to the EAR because:
 - the technology that arises during or results from the research is normally made public; and,
 - the technology necessary to conduct the research is normally obtained from public or published sources.
- If preexisting technology necessary to conduct the research is export controlled; or, if a researcher makes a decision to control the technology that results from the research, then, deemed export licensing requirements must be considered.



Fundamental Research

World of Research

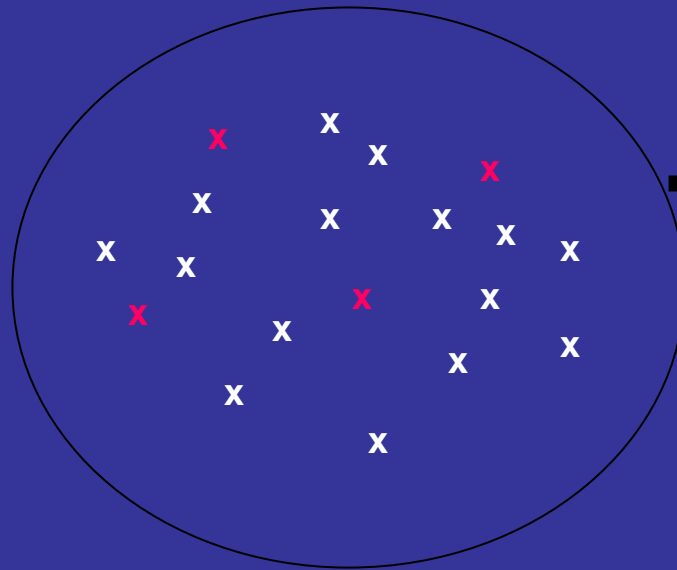
Uncontrolled
Technologies



Preexisting
Export



Controlled
Technologies



Information
resulting
from
fundamental
Research

INPUT

OUTPUT



Government Sponsored Research Under the EAR

- Under the EAR, prepublication reviews or short delays to publication so proprietary* information can be scrubbed is permitted
 - For government-sponsored research, access and dissemination controls normally do not trigger a license as long as the researching entity follows national security controls set forth in contract

* You should note if the proprietary information is controlled by the EAR, a deemed export license may be required even though the research results are intended for publication and fall under the fundamental research carve out.



Collaborative Research Relationships

- If a foreign national develops, produces or uses items, equipment, software or technology overseas, and sends any one of them to the U.S., this item then becomes U.S. origin
- If these technologies or commodities are controlled, a license may be required for export, even if it is exported back to the same exact institution for the same purpose



Clarification of “Use” Technology

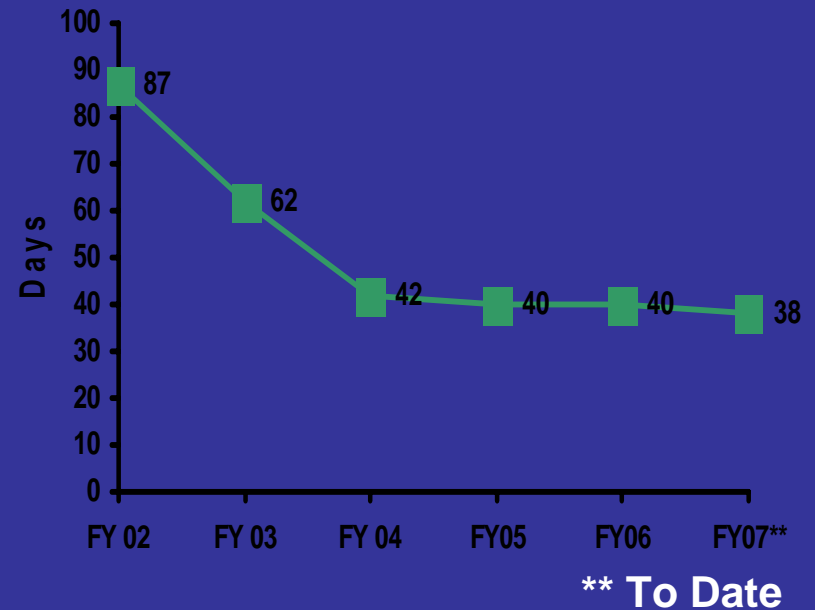
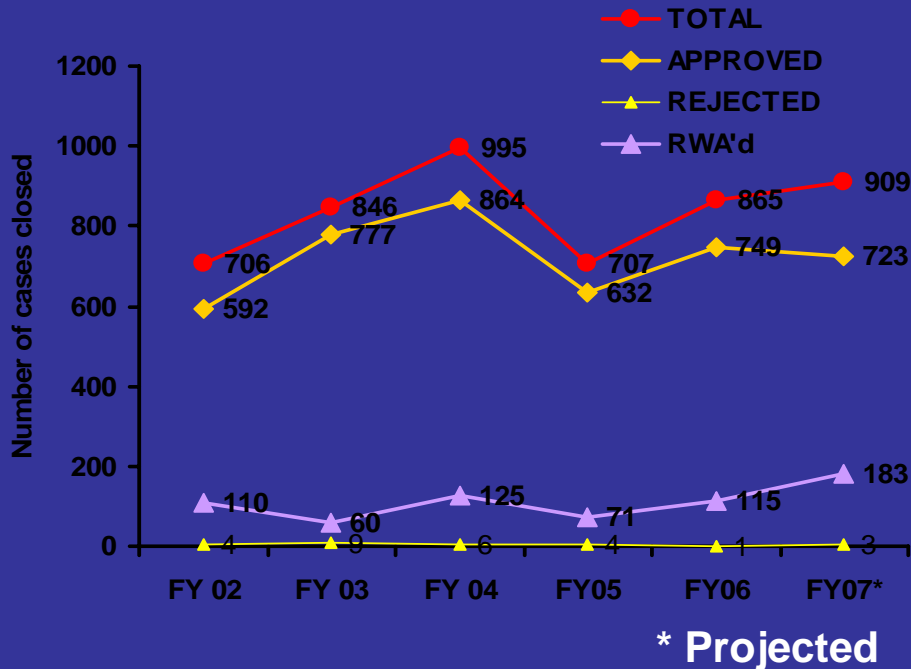
- The use of export controlled equipment is not a deemed export. Deemed exports occur only if controlled technology is transferred.
- The regulatory definition of “use” is technology for “operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing.”
 - All six attributes of the definition in order to qualify as controlled “use” technology. Otherwise the technology is likely EAR99.
- General Technology Note:
 - The term “technology” as used in the EAR refers to specific information “required” for the “development,” “production,” or “use” of specific product (e.g. computer, fermenter, machine tool, etc.).
 - “Required” technology refers only to that portion of technology which is peculiarly responsible for achieving or exceeding controlled performance levels, characteristics or functions.



Deemed Export FY2006 Summary

- In FY2006, the Bureau approved 85%, returned without action approximately 14%, and denied less than 1% of the total of 865 deemed export license applications
- Almost 60% of the deemed export licenses processed are for PRC foreign nationals
- Followed in descending order by foreign nationals from India (13%), Iran (7%), Russia and Germany (2%) and UK (1%)
- Most deemed export licenses are processed in 40 days

Annual Deemed Export Licensing Trends



Most Common Deemed Exports:

- Semiconductor & Electronics - Category 3
- High Performance Computers - Category 4
- Telecommunications - Category 5



Deemed Export Advisory Committee

- Comprehensive policy review
- Required by law to meet quarterly
- Meetings open to the public
- The final report is expected to be delivered to the Secretary of Commerce in late 2007



Deemed Export Advisory Committee

- **DEAC Members**

- **Norman Augustine, Retired Chairman & CEO, Lockheed Martin Corporation*;**
- **Robert Gates, PhD, President of Texas A&M University****
- **Albert Carnesale, PhD, Former Chancellor of the University of California at Los Angeles;**
- **Ruth David, PhD, President & CEO, Analytic Services, Inc.;**
- **The Honorable John Engler, President, National Association of Manufacturers;**
- **Anthony Frank, PhD, Provost and Senior Vice President, Colorado State University;**
- **General John A. Gordon, Former Deputy Director, Central Intelligence Agency;**
- **Sean O'Keefe, Chancellor, Louisiana State University;**
- **Eva Pell, PhD, Senior Vice President and Dean of the Graduate School, Penn State University;**
- **Michael Splinter, CEO, Applied Materials;**
- **James Siedow, PhD, Vice Provost for Research and Professor of Biology, Duke University;**
- **William A. Wulf, PhD, President, National Academy of Engineering and Professor of Computer Science and University Professor, University of Virginia.**

** Chairperson ** Resigned to become Secretary of Defense*



What is a License Exception?

- Authorization to export or reexport without a license
- Each exception has a three letter symbol
- Part 740 of EAR used for export clearance purposes
- Some require notification, review, or supporting documentation prior to use



General Restrictions

§740.2

- Authorization suspended or revoked
- Subject to one of the 10 General Prohibitions
- ECCN 5A980
- Crime control and detection items
- Most items controlled for MT reasons
- Certain space qualified items
- ECCNs 2A983, 2D983, 2E983
- The QRS11 sensor found in ECCN 7A994



Country Groups

Supplement 1 to Part 740

Group A: Regime
Members

Group B: Less Restricted

Group D: Countries of
Concern

Group E: Terrorist
Supporting





Available License Exceptions for Deemed Exports

- **CIV: Civil End Use (EAR §740.5)**
 - ❖ Applies to deemed exports for 3E001/3E002 technology.
 - ❖ Requires Foreign National Review (FNR)
- **TSR Technology and Software Under Restriction: (EAR §740.6)**
 - ❖ Applies to technology and software under national security only for country group “B” nationals.
 - ❖ Requires Letter of Assurance
- **APP: Applied Peak Performance (EAR §740.7)**
 - ❖ Applies to deemed exports for 4D001/4E001 software and technology. (FNR Required)



Model of Research Lab Export Compliance Plan

- Work flow process
- Discuss Basic Evaluation Steps
- Discuss Methods or Techniques for dealing with Foreign National Involvement



Work Flow Process

INFLOWS

→

- Programs
- Projects
- Agreements
- Partnering Activities
- User Facilities
- Etc.

→

Foreign Involvement

Determine if Foreign Involvement is Likely & whether Tech Transfer Could occur & Conduct a Risk Assessment

Work Assessment

Assessment Of Work Risk & Export Control Considerations e.g. Jurisdiction, Level of control, & so-on

Work Controls

Implement Necessary Level of Safeguards, & Work Segmentation, Training, EC Licensing, Etc.

OUTFLOWS

→

- Reports
- Publications
- Products
- Services
- Licensing
- Patents
- Etc.

→

Deemed Exports



Work Flow Process & Risk Evaluation

Foreign Involvement

- Foreign National Employees
- Foreign National Guest Researchers
- Foreign National Visitors/Tours
- Foreign National Businesses
- Foreign National Screening - Work History, Affiliation, and Proposed Work Scope



Work Flow Process & Risk Evaluation

Work Assessment

- Is the Work Likely to Involve Areas under General Prohibitions or other Agency Restrictions?
- Is the Work Likely to Use a Controlled Technology and or Result in Controlled Technology?
- Is the Work Likely to Result in Intellectual Property, Patent, Licensing (Property)?
- Is the Work Likely to be Openly Published or Fundamental Research?
- Is a Deemed Export or Export License Required?



Work Flow Process & Risk Evaluation

Work Controls

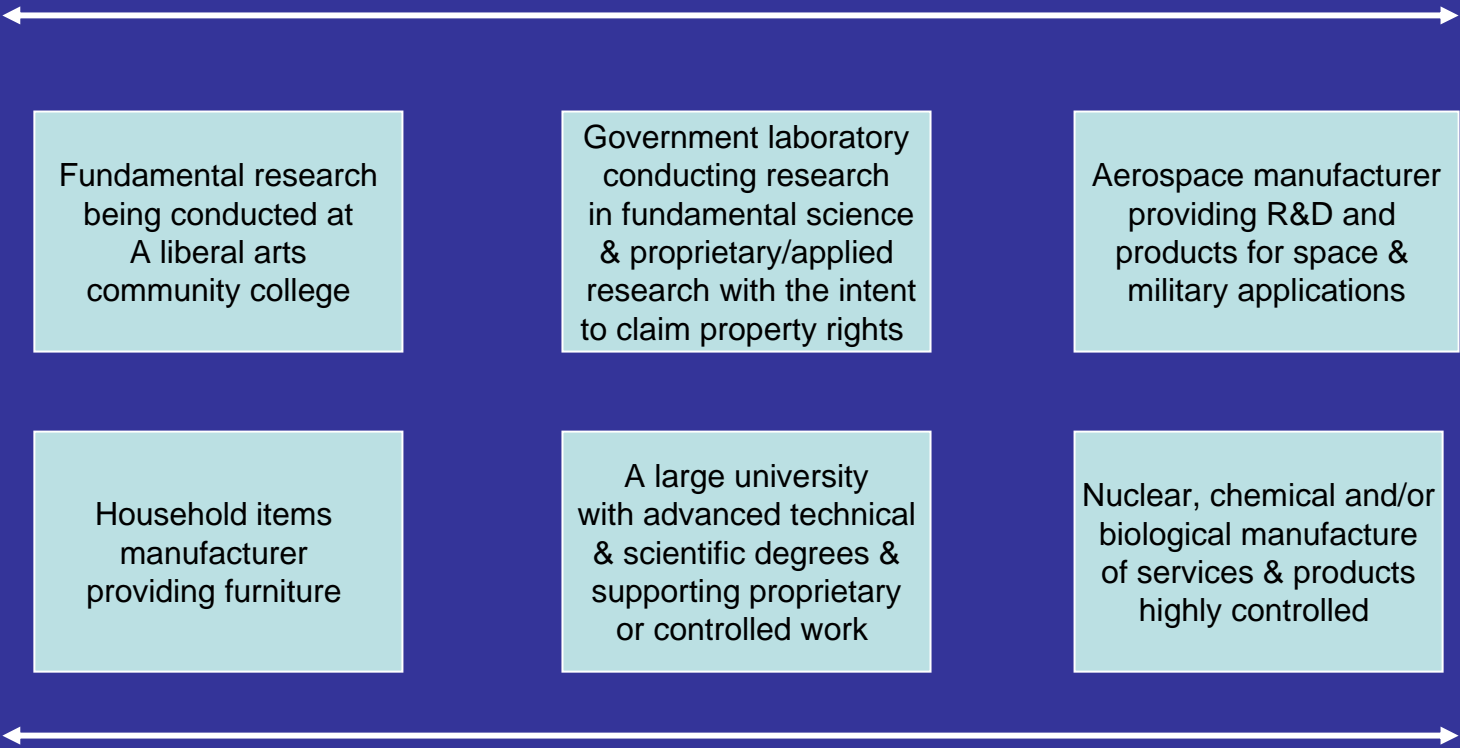
- If the Work is Controlled is the Work Area Segregated or Protected (Safeguarded)?
- Has the Work Area Been Walked-Down?
- Can the Work Itself Be Segregated in a Manner so that Technology Does Not Transfer?
- If Licensable are the Provisos and Condition Requirements Properly Addressed?
- Do the individuals who will be interfacing with the Foreign National(s) understand the Requirements of the License?
- Are the Individuals Trained and Is that Training Recorded?



Export Control Partnering Considerations

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Conclusion

- Assess your business/laboratory/university to see what export control requirements and the associated risk factors apply to you
- As International involvement increases so does your risk
- Business/Laboratory/University foreign involvement and export control requirements DO CHANGE overtime
- Fundamental Research can change to Proprietary Research and be Subject to Export Control
- Don't Deny! EC Requirements Do Apply!



Developing a Technology Control Plan (TCP)

- The requirement for a TCP is a standard condition of approval for a deemed export license
- A TCP should include the following six essential elements:
 - Corporate commitment to export compliance
 - Physical security plan
 - Information security plan
 - Personnel screening procedures
 - Training and awareness program
 - Self evaluation program



Essential Elements of a TCP

1. Corporate commitment to export compliance

- Organizational chain of command of export compliance team
- Must have member of senior management team responsible for export compliance
- Demonstrate how compliance issues are resolved
- Show evidence of methodology for commodity classification of technology in the workplace
- Top-down leadership (e.g., CEO company wide letter that establishes a corporate culture of export compliance)



Essential Elements of a TCP

2. Physical security plan:

- Structure of building security at each technology location
- Description of physical security plan (badge access, secure door access...).
- Perimeter security and access control.



Essential Elements of a TCP

3. Information security plan:

- Command structure of IT security at each technology location
- Description of IT security plan (password access, firewall protection plans...)
- Verification of technology authorization (terminated employees, individuals working on new projects...)
- Intranet and internet security



Essential Elements of a TCP

4. Personnel screening procedures:

- At minimum must review entities and denied parties list.
- What types of background checks are conducted (criminal, drivers license, credit...).
- Must know procedures that 3rd party contractors use (e.g. temporary employment agencies)
- Non-disclosure agreements



Essential Elements of a TCP

5. Training and awareness program:

- Schedule of training program for informing foreign national employee of technology access limits
- Description of training for U.S. employees which have access to controlled technology areas
- Export control awareness training for all employees



Essential Elements of a TCP

6. Self evaluation program:

- Self auditing schedule
- Checklist of items reviewed during each audit
- Action item and corrective procedures
- Internal or external audit



TCP Summary

- There is no one-size-fits-all
- Necessary to provide assurance that information will not be diverted to foreign national's home country
- Typical agenda item for BIS site visit
- Verification of TCP effectiveness is a goal of domestic post shipment verification/pre-license check to assure compliance with license conditions²⁰



Technology Transfer Vehicles

- Exporters must distinguish between the following to insure the correct licensing authorization:
 - Deemed export of technology;
 - Deemed reexport of technology;
 - Technology export; and,
 - Technology reexport.
- Exporters in general are creating unnecessary licensing burdens for themselves.



Distinguishing Deemed Export from Technology Export

- A deemed export is the release of controlled technology or source code to a foreign national in the U.S.
- A technology export is the release of controlled technology in a foreign country
- Deemed export licensing authorization is based on a review of the individual foreign national's background, country of origin and level of technology
- Technology export licensing authorization is based on the ultimate consignee's country, the level of technology and the bonafides of the consignee
- BIS does not license individual employees of consignees on a technology export license



Distinguishing Deemed Reexport from Technology Reexport

- A deemed reexport is the release of controlled technology or source code to a foreign national of another country; this is deemed to be a reexport to the foreign national's home country
- In many cases technology exported to the country home of that foreign national may be exported NLR or under License Exception (LE) not available for the foreign national's home country
 - e.g., ECCN 5E001 technology may be exported to a company in Ireland under LE TSR.
 - A Russian foreign national employee of that company in Ireland requires deemed reexport license authorization to receive this technology
- A technology reexport is the actual shipment or transmission of controlled technology from one foreign country to another foreign country



<http://www.bis.doc.gov>

- **Licensing**
 - **Deemed Exports**
 - Process Improvements
 - Licensing Guidance
 - Frequently Asked Questions
 - Advisory Opinions
 - Q & A's



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