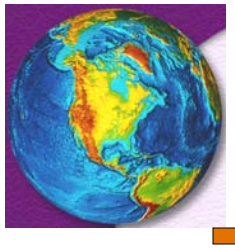
Office of
International Regimes and Agreements
NA-243

Richard Goorevich
Director
(202) 586-0269

ECCO Seminar

May 2006



NA-243: USG Technical Lead for Nuclear Technology

Functional Overview

Domestic Controls

Other

- Support to
- DHS:CBP,ICE
- DHS/U.S. Coast Guard
- FBI
- DOC/BIS/EE

DOE Complex

- Surplus Equipment
- Deemed Exports
- Nuclear Software
- CRADAs
- NCI/IPP
- NP Seminar Series
- ECI
- Declassification

Industry

- Part 810 Authorizations
- Munitions
- Dual-Use
- NRC Assurances

International Controls

Multilateral

- NSG
- Zangger Cmtee
- Wassenaar Arrgmt.
- MTCR
- AG
- NPT
- Agreements for Cooperation

Safeguards

- Safeguards Policy
- Additional Protocol Implementation
- IAEA Board of Governors and General Conference

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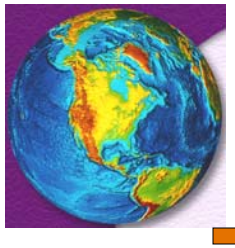

NA-20
DEFENSE NUCLEAR NONPROLIFERATION
Acting Deputy Administrator – **Jerry Paul**

NA-24
Acting ADA **Cynthia Lersten**
Acting DADA **Adam Scheinman**

OFFICE OF INTERNATIONAL REGIMES & AGREEMENTS
Director - **Rich Goorevich**
Program Analyst / Budget - **Jamie Curry**
PINS – ***Barbara McIntosh*** *(LANL)*
Deputy Director - **Anatoli Welihozkiy**

Policy Coordination
Ron Cherry / Melissa Krupa
- **Safeguards / Suppliers / Security Coordination of GNEP**
- **Multilateral Nuclear Supply (NSG, Zangger Committee)**
- **Physical Protection**
- **IAEA Interactions**

EXPORT LICENSING
Team Leader - **David Flynn**

DOMESTIC
- **Nuclear Referral List from EAR**
- **Technology Transfers (Part 810)**
- **International Traffic in Arms Regulations (ITAR)**
- **Export Administration Regulations (EAR)**
- **SNEC, MTEC, Shield –Licensing**
- **Sanctions Work**
- **WMD Executive Order**
- **DOE Complex**

REGIME SUPPORT
- **Australia Group**
- **International Biosecurity**
- **Missile Technology Control Regime**
- **Wassenaar Arrangement**
- **WMD TRGs**

INTERDICTION CELL / PTCD
- **NIAG, MTAG, SHIELD**
- **PSI Support**
- **NUTRAN Support**

NUCLEAR TREATIES & AGREEMENTS
Team Leader - **Sean Oehlbert**

MULTILATERAL AFFAIRS
- **IAEA Technical Cooperation**
- **Conference on Disarmament**
- **Biological Weapons Convention (BWC)**

NUCLEAR TREATIES
- **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)**
- **Nuclear Weapons Free Zones (NWFZ)**
  - **Treaty of Tlatelolco**
  - **Treaty of Rarotonga**
  - **Bangkok Treaty**
  - **Pelindaba Treaty**
- **Fissile Material Cutoff Treaty (FMCT)**

BILATERAL AGREEMENTS FOR PEACEFUL COOPERATION (AEA SECTION 123)
- **Administrative Arrangements**
- **Subsequent Arrangements**
- **Nuclear Material Management & Safeguards System (NMMSS)**
- **NRC Licensing**

NUCLEAR SAFEGUARDS
Acting Team Leader – **Dunbar Lockwood**

SAFEGUARDS POLICY
- **Policy Studies**
- **SAGSI**
- **Board of Governors**
- **GPN Conference**
- **Code of Conduct of RAD Services**
- **Plutonium and HEU Holdings**

SAFEGUARDS IMPLEMENTATION
- **VOA Implementation**
- **Additional Protocol Implementation**

SAFEGUARDS TECHNOLOGY
- **Advanced Safeguards Initiatives**

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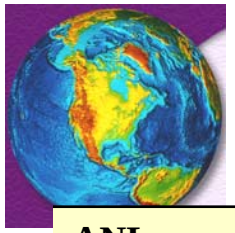

National Labs/Sites & Missions

ANL	DuPage County, IL	Science & energy research, environmental management, national security.
BNL	Long Island, NY	Nuclear physics, chemistry of materials, nonproliferation.
KCP	Kansas City, MO	Stockpile stewardship, production of non-fissionable nuclear weapon components.
LLNL	Livermore, CA	Stockpile stewardship, nonproliferation, safeguards, homeland security, research.
LANL	Los Alamos, NM	National security, stockpile stewardship, nonproliferation, modeling & simulation.
Oak Ridge	Roane County, TN	Neutron science, biological systems, energy, advanced materials, supercomputing.
PNNL	Richland, WA	Basic & applied research, national security, chemical, physical, and biological sciences.
Pantex	Amarillo, TX	Stockpile stewardship, weapon dismantlement, high explosives, storage of nuclear materials.
SNL	Albuquerque, NM	Weapon design, nonproliferation, energy research, military applications, national security.
SRNL	Central Savannah River Area, SC	Nuclear materials management, environmental restoration, nonproliferation, safety.

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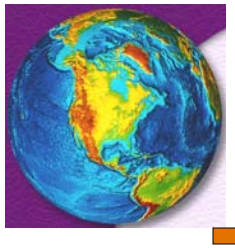
Export Licensing



Areas of Licensing Responsibility

- Industry
  - Part 810 Specific and General Authorizations
  - Dual-Use License Reviews
    - Nuclear, Chemical, Biological, Missile, and Electronic Devices / Semiconductor Manufacturing Equipment
  - Munitions License Reviews
    - Sections 5 and 16: Explosives and Nuclear Weapon Design and Test Equipment
- DHS/CBP & ICE & U.S. Coast Guard; FBI; DOC/BIS/EE Support
- DOE Complex
  - Maintain NP Guidelines/Sensitive Subjects/Countries Lists
  - Provide Guidance on:
    - Foreign Travel by DOE Funded Programs
    - Deemed Exports (Foreign Visitors Hires)
    - International Programs (IPP, NCI, MPC&A, ITER, etc.)
    - Surplus Property
    - ECI Review of DOE Publications
  - Review Transfer of Nuclear Software
  - Provide NP Seminar Series
  - Support "Pit-Out" Reviews

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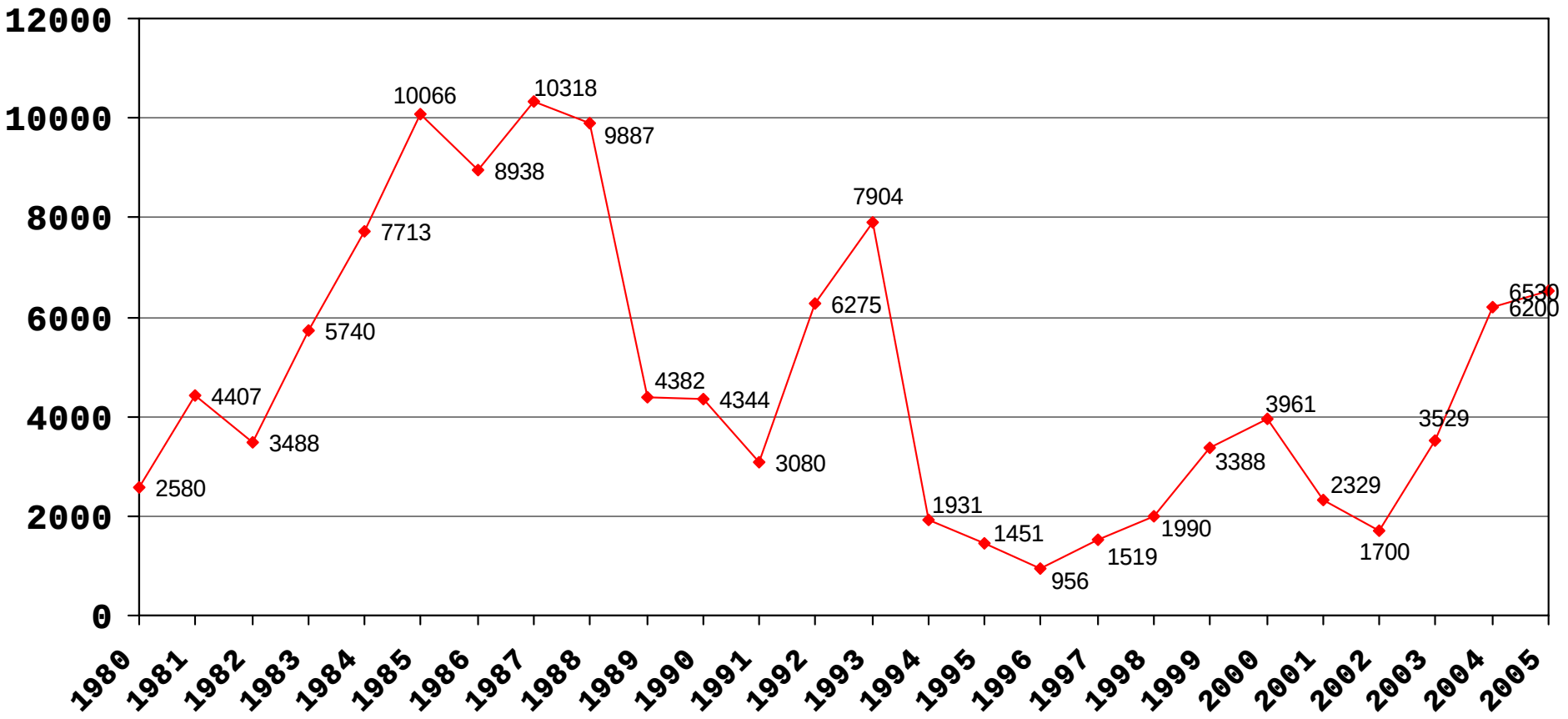
Export Cases Received by DOE



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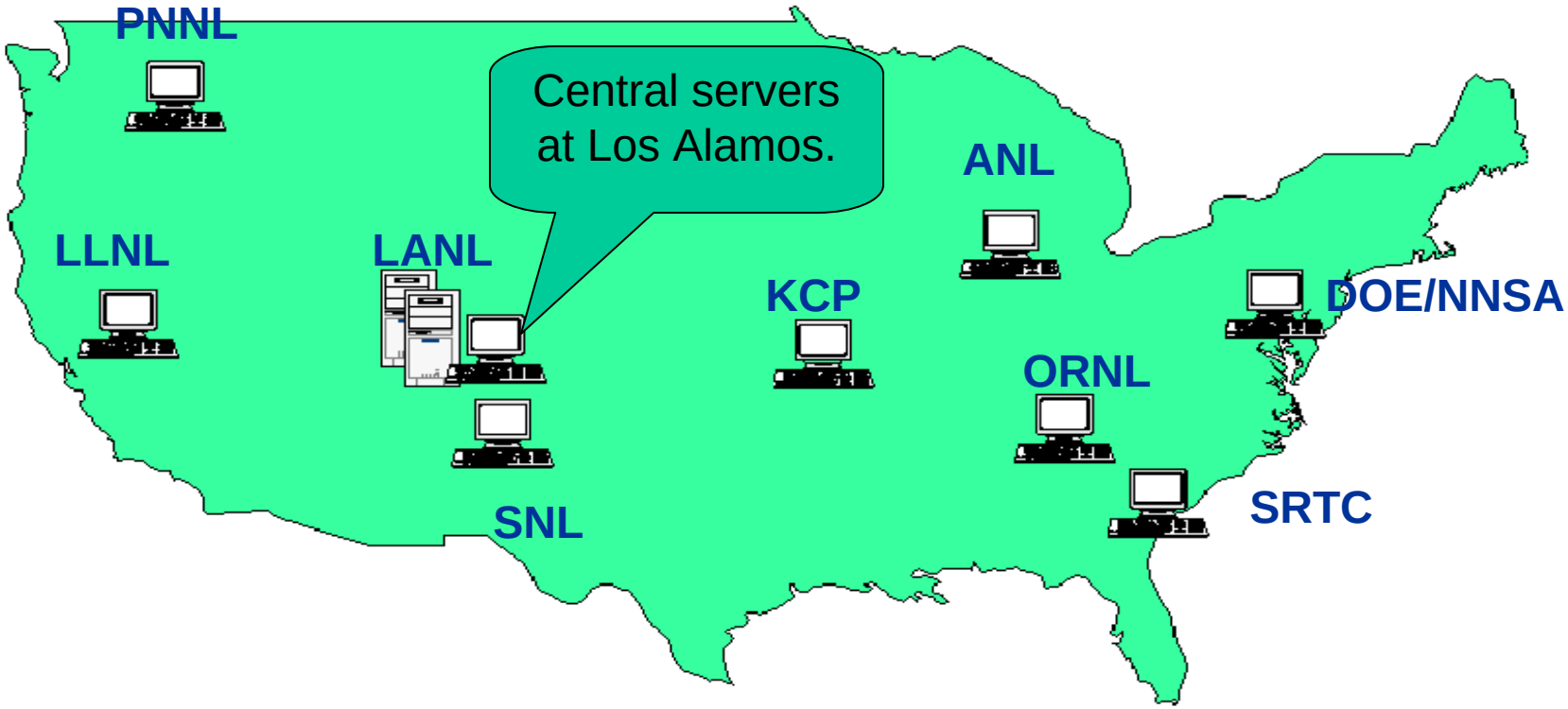
DOE Technical Review Network



- Currently nine government sites connected via encryption units
- Approximately 130 users
- Additional servers at DOE/NNSA/NA-242, LLNL, and ANL

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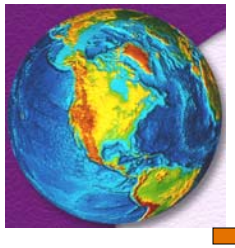

Licensing Areas of Responsibility

- **Multilateral Regime Support**
  - **Nuclear Suppliers Group**
  - **NPT Exporters Committee (Zangger)**
  - **International Atomic Energy Agency (IAEA)**
  - **Missile Technology Control Regime (MTCR)**
  - **Wassenaar & Australia Group (AG)**
- **Other Issues**
  - **Bilaterals**
  - **Interdiction Cell (NIAG, MTAG, and SHIELD)**
  - **President's Proliferation Security Initiative (PSI)**
  - **Sanctions**
  - **NISS (NSG Information Sharing System)**

Physical Protection

- Convention on the Physical Protection of Nuclear Material
- IAEA INFCIRC/225 Updates
- Physical Protection Bilateral Consultations

- **Technical Projects**
  - SNET List Review
  - Technical Review Group
  - Commercialization of DOE lab technology (CRADAs)
  - Proliferation Trade Control Directory (PTCD)

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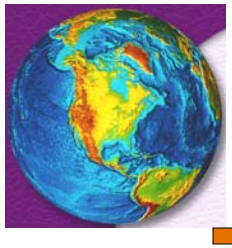

Multilateral Export Controls

Purpose:

- Prevent the proliferation of nuclear weapons by:
  - delaying a nuclear program and allowing other means, such as diplomacy, to help;
  - causing an end-user to accept a less capable and more costly option; and
  - allowing for countries to take a principled position on nuclear nonproliferation

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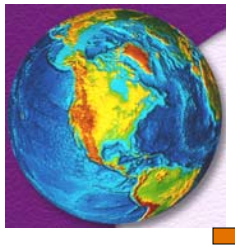

Multilateral Export Controls

Strategies:

- Strengthen the multilateral supplier regimes through continued U.S. technical leadership
- Cooperate with the U.S. interagency, DOE and NNSA offices, and like-minded multilateral partners to promote peaceful nuclear trade and nonproliferation objectives

Strategies

- Promote adherence to multilateral nuclear supplier arrangements in support of USG nonproliferation policy
- Ensure that the NNSA program offices and contractors are fully apprised of all multilateral commitments and obligations

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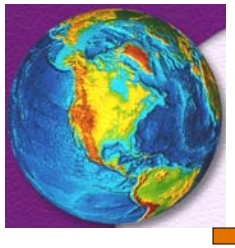

NUCLEAR SUPPLIER GROUP MEMBERSHIP

- **As of the 2005 Plenary in Norway, the newest NSG member is: Croatia.**
  (*Date of Information: May 2006)*

Argentina
Australia
Austria
Belarus (NSG only)
Belgium
Brazil
Bulgaria
Canada
China (2004)
Croatia (NSG only)
Cyprus (NSG only)
Czech Republic
Denmark
Estonia (2004)
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Japan
Kazakhstan
Korea, Republic of
Latvia
Lithuania (2004)
Luxembourg
Malta (2004)
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Russia
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom
United States

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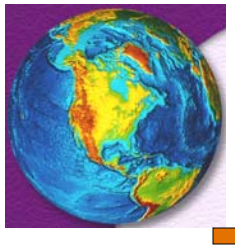

Physical Protection

- Amending the Convention on the Physical Protection of Nuclear Material (CPPNM) to address new post-9/11 nuclear terrorism concerns
- Updating IAEA INFCIRC/225 to address these new nuclear security concerns and threats
- Bilateral Physical Protection Consultations and Visits:
  - ➢to evaluate the application of physical protection measures for exported U.S.-origin materials as outlined in the Atomic Energy Act and Nuclear Nonproliferation Act as export license requirements!

The new structure of NA-243 allows the coordination of these two important elements of nuclear transfer security: export controls and physical protection requirements!

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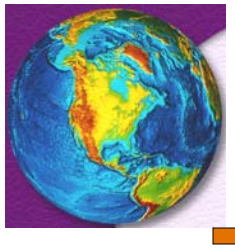
Treaties & Agreements



Treaties & Agreements

- Assurance Requests for NRC Exports
- Agreements for Cooperation
- Nuclear Nonproliferation Treaty (NPT)
- Conference on Disarmament
- Fissile Material Cutoff Treaty (FMCT)
- Nuclear Weapons Free Zones
- Nuclear Material Management & Safeguards System (NMMSS)
- DOE's Nonproliferation Seminars
- IAEA Technical Cooperation Program

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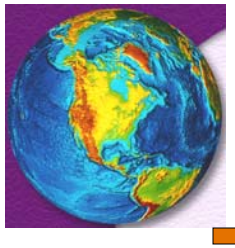
Nuclear Safeguards



Nuclear Safeguards

- **Safeguards Policy**
  - support Committee on Safeguards and Verification (CSV)
  - support Standing Advisory Group on Safeguards Implementation (SAGSI), etc.

- **Safeguards Equipment Development (w/NA-242)**
  - e.g., develop unattended/remote monitoring technology to reduce frequency of IAEA inspections

- **IAEA Board of Governors and IAEA General Conference Support**
  - provide technical and policy support to UNVIE
  - provide technical and policy support to Secretary of Energy

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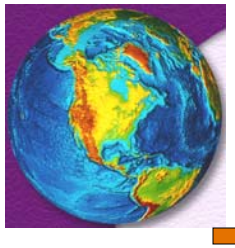

Nuclear Safeguards (continued)

- **Additional Protocol Implementation**
  - set up AP Reporting System (APRS) for DOE site declarations
  - provide training to Site Operators
  - promote AP outreach in foreign countries

- **GNEP Safeguards**
  - work with NE and lab technical experts to develop IAEA safeguards for 3 demonstration facilities

- **U.S. Voluntary Offer Agreement (VOA)**
  - implement US-IAEA Safeguards Agreement at DOE sites (Y-12, SRS, and Hanford)
  - represent DOE in Subgroup on IAEA Safeguards in the United States (SISUS)

- **Safeguards Technology Base**
  - sustain National Nuclear Lab safeguards expertise
  - develop advanced safeguards initiatives for the future

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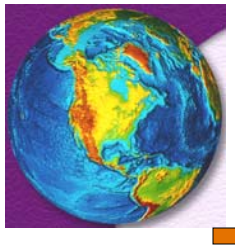

Status of DOE Guidelines on Export Control and Nonproliferation

- **Updated version being reformatted by DOE/GC**
- **Separated export control concerns for equipment and technology.**
- **Added more footnotes for technical background.**
- **Sale of equipment in the U.S. is not a deemed export, if sale is open to public.**
- **Added more info on Part 810 authorizations.**
- **Added more on exceptions and exemptions.**
- **Updated ECI markings.**
- **Emphasized the NSG and SSL are just references, the governing documents are U.S. laws and regulations.**

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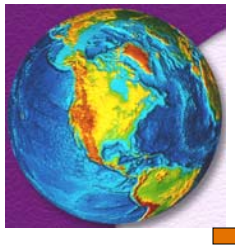

Guidelines (continued)

- **Added a statement about originating organization using discretionary publication control over EAR 99 unclassified information that might be a proliferation concern.**
- **Added a reference to the Federal Property Regulations.**
- **Added a 5-year record retention period for the export or deemed export of ECI.**
- **Added a note that property transfer approval be addressed in the initial funding document.**
- **Added a section on the pre-release of software.**
- **Added Appendix 3 on DOE directives.**

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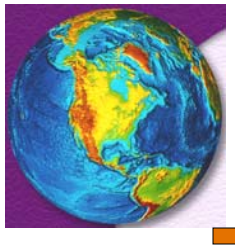

REFERENCES ON EXPORT CONTROLS: Export Controlled Information (ECI)

Export Controlled Information (ECI) - Technical information whose export requires a license

- ECI should be protected if uncontrolled dissemination would adversely affect U.S. national security or nonproliferation objectives
- DOE policy on dissemination of ECI must balance commitments to:
  - U.S. nonproliferation and national security goals
  - Scientific and technological advance
  - Benefit to U.S. industry
  - Benefit to U.S. taxpayer
  - Freedom of Information Act (FOIA) requirements

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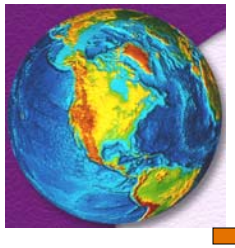

Export Controlled Information (ECI)

- Restricting release of ECI:
  - Publications:
    - Edit sensitive data
    - Limit distribution
  - Presentations:
    - Edit sensitive data
    - Limit audience

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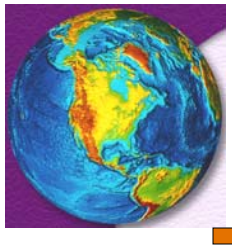

Export Controlled Information (ECI)

The following format is preferred for the distribution limitation statement on such documents:

EXPORT CONTROLLED INFORMATION

Contains technical information whose export is restricted by *. Violations may result in administrative, civil, or criminal penalties. Limit dissemination to U.S. persons†. The cognizant program manager must approve other dissemination. This notice shall not be separated from the attached document.

Reviewer (Signature)

Date

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Export Controlled Information (ECI) (continued)

- **Fill in the appropriate export control regulation e.g., DOC Export Control Classification Number (ECCN) xxxx, DOS ITAR Category xx, NRC 10 CFR Part 110.xx, DOE 10 CFR Part 810.xx, or other jurisdiction classification as appropriate.**
- † **See Section 4.5 for other dissemination options.**
- **NOTE: 4.5** ***ECI and the Office of Scientific and Technical Information***

  An ECI review should be initiated early enough to avoid conflicts with planned publication, presentation, distribution, or visit schedules, and should be consistent with guidelines implementing DOE Order 241.1 of April 9, 2001. Those guidelines urge contractors or Operations or Program Offices to forward reports to the Office of Scientific and Technical Information (OSTI), Oak Ridge, Tennessee, with a completed DOE Form 241.1, Announcement of Department of Energy (DOE) Scientific and Technical Information (STI). The form sent to OSTI records the outcome of the ECI review, including dissemination guidance. When no dissemination guidance is given, OSTI may provide the report to anyone who requests it in accordance with its own policies and practices.

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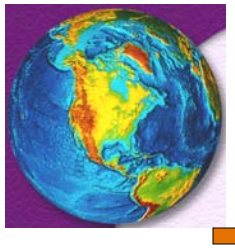

Technology Transfer Control

Objectives:

- To identify materials, equipment, and technology of proliferation concern
- To prevent transfers to proliferants (through foreign national visits and assignments in DOE complex)
- To protect against inadvertent transfers (of ECI and proprietary data)
- To weigh proliferation and security concerns against value of scholarship, technology advance, and economic benefit
- To implement U.S. Government policy on transfers of materials, equipment, and technology

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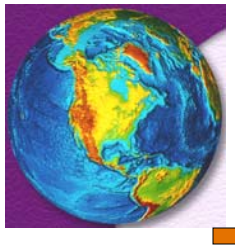

Technology Transfer Control

Mechanisms of Transfer:

- Sales, donations, loans, leases, exports
- Technical exchanges and communications
- Work-for-others, Cooperative Agreements, patent assignments
- Publications and presentations
- Visits and assignments to DOE sites
- Foreign travel by DOE personnel

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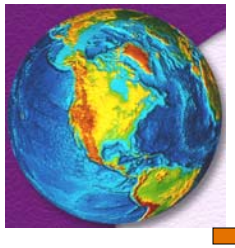

Technology Transfer Control

Transfer Control Principle:

- Whatever the transfer mechanism, export control review is mandatory by U.S. law and regulation

Control Measures:

- Export control review of all proposed transfers, exchanges, publications, presentations, visits and assignments, and foreign travel
- Export control requirements placed in all transfer agreements
- DOE/NNSA approval required for retransfers

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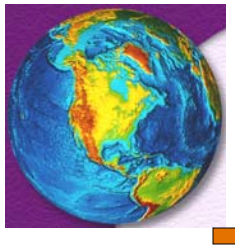

Technology Transfer Control

Areas under 30-day export control review by DOE

- Nuclear Suppliers Group (NSG) list
- Missile Technology Control Regime (MTCR) list
- Australia Group (AG) chemical and biological warfare related list
- Category 3:
- Export control regulations – Departments of Energy, Commerce, and State, and Nuclear Regulatory Commission
- DOE/NNSA
  - Guidelines on Export Control and Nonproliferation
  - Sensitive Countries List
  - Sensitive Subjects List

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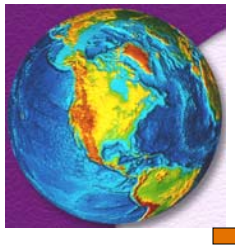

Surplus Property

Transfer of Surplus Property:

- Equipment and materials must be made useless for nuclear purposes
- Transfer agreement must include strict nonproliferation conditions
- There is a presumption of destruction for NSG Trigger list items and for weapons components
- For items deemed too valuable to destroy:
  - Request exception from DOE/NNSA Deputy Administrator for Defense Nuclear Nonproliferation
  - May require modifying equipment to render it useless for nuclear purposes
  - Must get DOE/NNSA approval for retransfer or export

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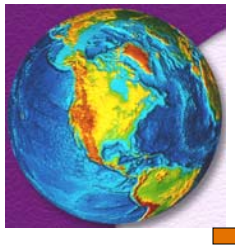

HIGHLIGHTS: Export Control Regulations

Dual-Use Export Licensing:

- Export Administration Act of 1979 provides licensing authority to Commerce
- Export Administration Regulations (EAR) implements

  Sections of note:
  - 15 CFR Part 738, Special Country Policies
  - 15 CFR Part 742, Control Policy -- CCL Based Controls
  - 15 CFR Part 744, Control Policy -- End-User and End-Use Based Catch-All Controls
  - 15 CFR Part 752, Special Comprehensive Licenses
  - 15 CFR Part 774, Commerce Control List (includes Nuclear Referral List)

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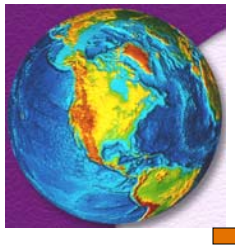

Export Control Regulations (continued)

Munitions Licensing:

- Under jurisdiction of the Department of State, Office of Defense Trade Controls
- International Traffic in Arms Regulations, 22 CFR Part 121
- DOE reviews nuclear-related cases
  - Category V - Explosives, Propellants, Incendiary Agents
  - Category XVI - Nuclear Weapons Design and Test Equipment
- Authority
  - Arms Export Control Act 1976
- Review process similar to dual-use cases, except without time limits or escalation

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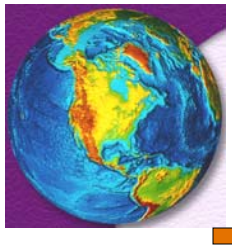

Export Control Regulations (continued)

NRC Exports:

- Nuclear exports requiring special or general licenses
- 10 CFR Part 110
- Authority
  - Atomic Energy Act of 1954
- DOE assists NRC in securing assurances from foreign governments that exports of nuclear materials and equipment will be for peaceful uses
- DOE provides general license request confirmations

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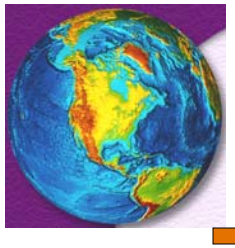

DOE Part 810 Authorization

Implementing Section 57b of the Atomic Energy Act, which requires that:

- Secretary of Energy must authorize U.S. persons to assist in production of Special Nuclear Material (SNM) in other countries.
- Secretary must have concurrence of Department of State and must consult Departments of Defense and Commerce, and Nuclear Regulatory Commission.

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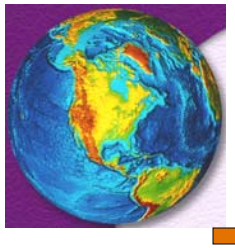

DOE Part 810 Process

The following is the Part 810 process:

- Office of International Regimes and Agreements (NA-243) reviews authorization request, consults concerned DOE offices and laboratories, and sends analysis to other agencies.
- Interagency review by State, Defense, Commerce, and NRC.
- If State concurs, Administrator for National Nuclear Security recommends approval to Secretary.
- Secretary determines authorization will not be “inimical to the interest of the United States.”

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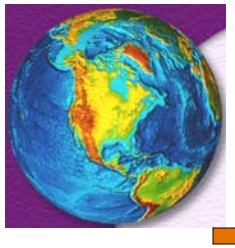

DOE Part 810 Review

Main factors considered in Part 810 review:

- Technical, political, economic and national security significance of proposal assistance
- Agreement for Nuclear Cooperation
- NPT, NSG, and Zangger Committee membership
- IAEA fullscope safeguards
- Other nonproliferation controls and conditions:
  - Government assurances
  - Reporting requirements

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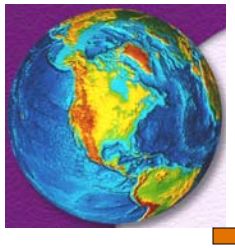

Export Control Developments

- Developing a self-assessment program aimed at the DOE Complex. Elements being contemplated are sensitive subject list training, “deemed export” procedure review in Complex and export control commodity classification procedures for high risk property.
- Commerce has decided to continue defining “use” of export controlled equipment with an “and” as currently presented in the EAR.

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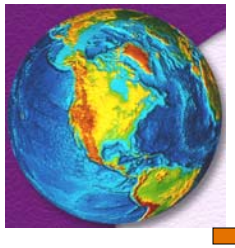

Export Control Developments (continued)

- The Proliferation Trade Control Directory (PTCD) is a data base under development. It can serve as a reference tool to aid high risk property identification and classification on whether its export controlled. It will contain information on export controlled equipment, material and components manufactured by U.S. and foreign suppliers, include technical specifications and product images, and Export Control Commodity Numbers (ECCNs) cross - referenced to Schedule B and Harmonized Tariff System Numbers.

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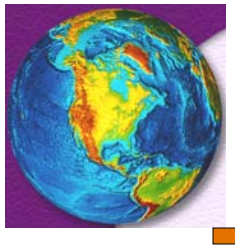

GOALS

- Incorporate export licensing and nonproliferation awareness into security briefings for new personnel
- “Deemed exports” and ECI review, where applicable, be performed by DOE Complex consistently for all foreign national visits and assignments and foreign travel by federal and contractor personnel
- Conduct awareness training for professional societies and industry associations in export control and nonproliferation

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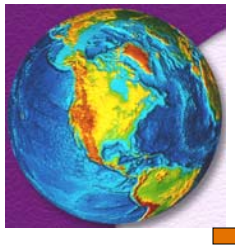
Continued influences on export controls



The President's Initiatives

President Bush's February 11, 2005 WMD speech at the National Defense University outlined a number of new initiatives, including initiatives related to export controls, to help mend the gaps in the nonproliferation regime which allow proliferators to acquire WMD-significant items and technologies

- The Nuclear Suppliers Group and the G-8 are now working to adopt these measures

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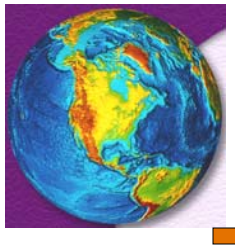

NSG Initiatives

In 2005 the NSG responded to proliferation by adopting measures to:

- Suspend nuclear trade to states found in noncompliance with IAEA safeguards obligations
- Adopt catch-all controls into the Part 2 Guidelines
- Agree to safeguards in perpetuity in Guidelines
- Agree to effective export controls as a factor for consideration for retransfers

Other issues being deliberated within the NSG to strengthen its Guidelines and Control Lists include:

- Establishing Additional Protocol as a condition of supply

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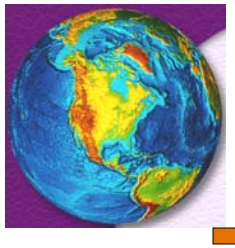

NSG Initiatives (continued)

- Restricting further transfers of enrichment and reprocessing technologies
- India – as a result of U.S./India joint statement, the NSG is considering what nuclear cooperation with India might look like
- Stable isotope separation technologies – NSG considering how to ensure equipment and technologies used in non-uranium isotope separation is adequately controlled since it can also be used for uranium
- Improve controls on UF6 resistant bellows – sealed valves, as a result of the A.Q. Khan network supply
- Plutonium isotope separation technologies agreed, but need to update NSG Trigger List

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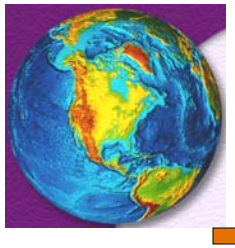

UNSCR 1540

Another positive step for export controls was the passage of United Nations Security Council Resolution 1540 in April 2004, which obligated all countries to:

- Refrain from providing support in acquiring, manufacturing, transferring or using WMD
- Adopt and enforce adequate export controls
- Adopt and enforce transit, transshipment and retransfer controls
- Work with their industries and public to inform them of these obligations

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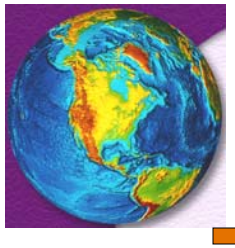

Radioactive Source Export Controls

The 2003 IAEA Code of Conduct on the Safety & Security of Radioactive Sources called for import and export controls on a subset of radioactive sources which could be used in a “dirty bomb”

- Over 80 countries have made a political commitment to the Code
- This import/export Guidance calls for end-use and end-user evaluations, notifications of shipments, and recipient authorization
- The NRC has amended its 10 CFR 110 regulations to reflect this Guidance; DOE is in the process of issuing similar internal Orders and guidance

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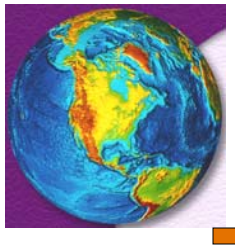

The Continued Frontier

- Revelations such as the A. Q. Khan illicit procurement network demonstrated the need for strengthened export controls and enforcement globally
- The President's Initiatives and the passage of UNSC Resolution 1540 emphasized the importance of export controls as the nonproliferation tool
- PSI and other USG interdiction efforts are reinforcing export control efforts by interdicting illegally-transferred and/or illicitly-procured items

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THE END