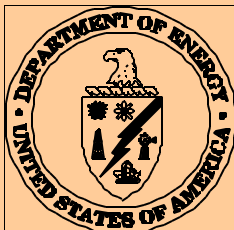


**INSPECTION  
REPORT**

**INSPECTION OF THE  
DEPARTMENT OF ENERGY'S  
ROLE IN THE COMMERCE CONTROL  
LIST AND THE U.S. MUNITIONS LIST**

MARCH 2001



**U.S. DEPARTMENT OF ENERGY  
OFFICE OF INSPECTOR GENERAL  
OFFICE OF INSPECTIONS**



**U.S. DEPARTMENT OF ENERGY**  
Washington, DC 20585

March 21, 2001

**MEMORANDUM FOR THE ACTING DEPUTY ADMINISTRATOR FOR DEFENSE  
NUCLEAR NONPROLIFERATION**

**FROM:** Sandra L. Schneider /s/  
Assistant Inspector General for Inspections  
Office of Inspector General

**SUBJECT:** INFORMATION: Report on "Inspection of the Department of  
Energy's Role in the Commerce Control List and the U.S. Munitions  
List" (INS-O-01-03)

**BACKGROUND**

Section 1402(b) of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2000 requires the President to submit to Congress an annual report by the Inspectors General of the Departments of Commerce, Defense, Energy, and State of the policies and procedures of the U.S. Government with respect to the export of technologies and technical information with potential military applications to countries and entities of concern. Section 1075 of the NDAA for FY 2001 requires the Inspectors General to include in their annual report the status or disposition of recommendations that have been set forth in previous annual reports under Section 1402(b).

An interagency working group, comprised of representatives from the Offices of Inspector General of Commerce, Defense, Energy, and State, selected the development of the Commerce Control List (CCL) and the U.S. Munitions List (USML) as the topic for the year 2001 annual review. The objectives of our inspection were to: (1) determine the roles and responsibilities of the Department of Energy (Energy) and Energy contractors in the coordination of the CCL and the USML; and (2) determine whether Energy is providing appropriate support to the CCL and the USML process. We also sought to determine the status and disposition of recommendations in our prior annual report, entitled "INSPECTION OF THE DEPARTMENT OF ENERGY'S EXPORT LICENSE PROCESS FOR FOREIGN NATIONAL VISITS AND ASSIGNMENTS," DOE/IG - 0465, which was issued in March 2000.

**RESULTS OF INSPECTION**

We concluded that Energy is providing appropriate support to the development and review of the USML and the Nuclear Referral List (NRL), a subset of the CCL. Energy participates, with the Department of Commerce, in the identification and review of nuclear dual-use commodities listed on the NRL. The process appears to be working appropriately and no concerns have been raised by other agencies regarding Energy's role. Additionally, Energy has only a minor role in the development and review of the USML.

With regard to the eight recommendations in our March 2000 annual report, corrective actions for two recommendations were completed, and the recommendations were closed. Six recommendations are currently open pending issuance of an Energy order regarding foreign visits and assignments. When issued, we will assess the responsiveness of the order to our recommendations, and determine whether the remaining recommendations should be closed.

Management had no comments or recommendations regarding the report.

Attachment

cc: Administrator, National Nuclear Security Administration  
Director, Office of Nuclear Transfer and Supplier Policy  
Team Leader, Audit Liaison Team (CR-2)

# INSPECTION OF THE DEPARTMENT OF ENERGY'S ROLE IN THE COMMERCE CONTROL LIST AND THE U.S. MUNITIONS LIST

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## Overview

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### INTRODUCTION AND OBJECTIVE

Section 1402(b) of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2000 provides that not later than March 30 of each year beginning in the year 2000 and ending in the year 2007 the President shall submit to Congress an annual report by the Inspectors General of the Departments of Commerce, Defense, Energy, and State of the policies and procedures of the U.S. Government with respect to the export of technologies and technical information with potential military applications to countries and entities of concern. Section 1075 of the NDAA for FY 2001 amended Section 1402(b) to require the Inspectors General to include in their annual report the status or disposition of recommendations that have been set forth in previous annual reports under Section 1402(b).

An interagency working group, comprised of representatives from the Offices of Inspector General of Commerce, Defense, Energy, and State, selected the development of the Commerce Control List (CCL) and the U.S. Munitions List (USML) as the topic for the year 2001 annual review.

The purpose of our inspection was to review the Department of Energy's (Energy) role in the development and review of the CCL and the USML. The objectives of our inspection were to:

- (1) determine the roles and responsibilities of Energy and Energy contractors in the coordination of the CCL and the USML; and
- (2) determine whether Energy is providing appropriate support to the CCL and the USML process. We also sought to determine the status and disposition of recommendations in our prior annual report, entitled "INSPECTION OF THE DEPARTMENT OF ENERGY'S EXPORT LICENSE PROCESS FOR FOREIGN NATIONAL VISITS AND ASSIGNMENTS," DOE/IG - 0465, which was issued in March 2000.

### OBSERVATIONS AND CONCLUSIONS

We concluded that Energy is providing appropriate support to the development and review of the USML and the Nuclear Referral List (NRL), a subset of the CCL. Energy participates, with the Department of Commerce (Commerce), in the identification and review of nuclear dual-use commodities listed on the NRL. The process appears to be working appropriately and no concerns have been raised by other agencies regarding Energy's role. Additionally, Energy has only a minor role in the development and review of the USML.

With regard to the eight recommendations in our March 2000 annual report, which was prepared in accordance with the provisions of Section 1402(b) of the NDAA for FY 2000,

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corrective actions for two recommendations were completed, and the recommendations were closed. Six recommendations are currently open pending issuance of an Energy order regarding foreign visits and assignments. When issued, we will assess the responsiveness of the order to our recommendations, and determine whether the remaining recommendations should be closed.

## **BACKGROUND**

The principal legislative authorities governing the export control of nuclear dual-use commodities<sup>1</sup> are the Export Administration Act of 1979 (EAA), and the Nuclear Non-Proliferation Act of 1978 (NNPA). The NNPA led to the export control by Commerce of nuclear-related dual use commodities, other than those licensed by the Nuclear Regulatory Commission, as published in Commerce's Export Administration Regulations. The CCL, which is under Commerce jurisdiction, designates items that are controlled because of national security and foreign policy; because they relate to missile, chemical, or biological weapons technology; or because they are in short supply. Items designated for nuclear nonproliferation controls (nuclear dual-use items) constitute the NRL, which is a subset of the CCL. The NNPA also requires Commerce to consult with Energy on export items that "could be of significance for nuclear explosive purposes." Commerce also refers export license applications to Energy for review if the commodity is on the NRL, or if the commodity is not on the NRL but is intended for a nuclear-related end-use or end-user. As called for in the NNPA, identification of the items to control and the maintenance of the NRL is a shared responsibility of Commerce and Energy in recognition of the nuclear technical expertise of Energy.

The Department of State (State) controls the export of defense articles and services (munitions commodities) under the International Traffic in Arms Regulations. In coordination with the Department of Defense (Defense), State determines whether a defense item or technology should be subject to export controls based on whether the item or technology: (1) is inherently military in character, or (2) was specially designed, modified, or engineered for military applications. If an item or technology meets either or both criteria, the item or technology is placed on the USML. Although State is not required to refer export license applications on nuclear-related munitions commodities to Energy for comment, State has routinely referred certain munitions export cases

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<sup>1</sup> Some controlled commodities are designated as "dual-use," that is, goods and technologies that have both civilian and military uses. The U.S. Government designates some dual-use commodities as "nuclear dual-use" items, which are controlled for nuclear nonproliferation purposes.

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involving nuclear-related items or technology to Energy for review.

Energy's export control activities for nuclear dual-use and munitions commodities are based on the provisions of U.S. statutes, regulations, and Executive orders governing export controls. Energy has not supplemented these statutes, regulations and Executive orders with internal orders or procedures. Within Energy, the Office of Nuclear Transfer and Supplier Policy (NTSP), which is in the Office of Arms Control and Nonproliferation, Office of Defense Nuclear Nonproliferation, plays a major role in the formulation of U.S. nuclear proliferation and export control policies, and conducts export license review activities for Energy for nuclear dual-use and munitions commodities.

The Energy Office of Inspector General (OIG) has issued several reports concerning Energy's export control activities. These reports were part of an interagency effort by OIGs of several agencies to determine the adequacy of export controls to protect against the transfer of technologies and technical information to countries and entities of concern. Recent reports include an inspection report titled "THE DEPARTMENT OF ENERGY'S EXPORT LICENSING PROCESS FOR DUAL-USE AND MUNITIONS COMMODITIES," DOE/IG-0445, dated May 1999, and an inspection report titled "INSPECTION OF THE DEPARTMENT OF ENERGY'S EXPORT LICENSE PROCESS FOR FOREIGN NATIONAL VISITS AND ASSIGNMENTS," DOE/IG-0465, dated March 2000.

## Results of Inspection

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### **Energy's Role in the Commerce Control List**

Energy participates, with Commerce, in the identification and review of nuclear dual-use commodities listed on the NRL, a subset of the CCL.

NTSP officials advised us that Energy's interest in the CCL is focused on the nuclear nonproliferation-related items, which comprise the NRL. According to NTSP officials, changes to the NRL can be initiated by the U.S. Government or can result from changes to international agreements, such as the Nuclear Suppliers Group and the Wassenaar Arrangement.<sup>2</sup> These international agreements are comprised of lists of items, such as nuclear nonproliferation-related items, that require export controls. We were advised that the NRL must contain the nuclear nonproliferation-related items that are on the lists associated with the various international agreements. The U.S. Government, however, can also add items to the NRL that would be subject to U.S. export controls, but would not need to be subject to controls by other countries. Regardless of whether a change to the NRL was initiated by the U.S. or the result of a change to an international agreement, the change would be processed by Commerce in a similar manner.

NTSP officials said that changes to the NRL resulting from proposals by the U.S. Government or as a result of changes to international agreements are processed by Commerce. Commerce prepares a "draft regulation change," which is circulated to U.S. Government agencies for review and/or comment. If all agencies agree with the proposed changes, the changes are advertised in the Federal Register and become final. According to NTSP officials, if an agency does not agree with a proposed change, and a final agreement cannot be reached, the matter is referred to the Office of Management and Budget and/or the National Security Council for resolution.

NTSP officials also said that State would have the lead in presenting to member countries any proposed changes to the CCL, including the NRL, that affect international agreements. However, Energy would play a support role to State when the changes involved nuclear nonproliferation items. We were told that changes to the CCL might occur as many as eight to twelve times a year.

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<sup>2</sup> The Nuclear Suppliers Group is comprised of 39 member countries and sets controls on nuclear material, equipment, and technology unique to the nuclear industry, and dual-use items that have both nuclear and non-nuclear commercial and military applications. The Wassenaar Arrangement involves 33 countries, including Russia, and seeks to control exports of armaments and sensitive dual-use items, such as computers, machine tools and satellites.



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NTSP officials advised us that they follow an informal process within Energy to review proposed changes to the NRL. We were told that Commerce provides Energy a copy of the proposed change(s) by e-mail and follows-up with a “hard copy.” According to NTSP officials, NTSP export control analysts seek technical assistance as needed from the Energy laboratories to develop recommendations regarding the proposed changes to the NRL. We were told that this mix of participants in Energy’s review process provides comprehensive coverage of all aspects of nuclear fuels cycle and nuclear weapons technologies, as well as coverage of nuclear export control and licensing issues.

### **NTSP Review of the Nuclear Referral List**

In September 1998, the NTSP Director established a Technical Review Group (TRG) to conduct a comprehensive review of all nuclear nonproliferation-related items on the CCL. The review was considered timely, since a comprehensive review had not been conducted since 1990, when Energy prepared the initial nuclear dual-use control list for development of a multilateral supplier arrangement in the Nuclear Suppliers Group.

We reviewed a copy of the TRG report entitled, “NUCLEAR REFERRAL LIST TECHNICAL REVIEW GROUP - Phase 1 Report,” dated January 1999. The TRG review was organized into two phases. Phase 1, which was the subject of the report, focused on domestic issues related to nuclear proliferation controls in the CCL. According to the report, the TRG’s work in Phase 1 was aimed at ensuring that U.S. multilateral export control commitments to the Nuclear Suppliers Group for the control of dual-use equipment, material, software, and related technology are cast accurately in the CCL. The work also was aimed at ensuring that any unilateral controls remain appropriate in recognition of worldwide developments in technology and nuclear proliferation. The next phase, Phase 2, will focus on the multilateral issues associated with dual-use controls, including possible recommendations for technical revisions, deletions, and additions to the multilateral list.

The TRG found that “the NRL is fundamentally sound in its scope and content.” According to the report, despite the many changes that occurred since 1990, there were few major discrepancies requiring changes/corrections to NRL entries. However, the TRG found that there were numerous instances of missing or incomplete technology controls for nuclear proliferation items. The TRG believed a solution was required to more simply reflect the technology controls of nuclear proliferation-controlled items.

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**Energy's Role in the U.S. Munitions List**

Energy has only a minor role in the development and review of the USML.

The International Traffic in Arms Regulations (ITAR), Section 38 of the Arms Export Control Act (AECA), authorizes the President to control the export and import of defense articles and defense services. The ITAR further stipulates that this authority has been delegated to the Secretary of State. According to the ITAR, the President designates articles and services deemed to be defense articles and defense services and the items so designated constitute the USML.

The export control of munitions commodities, which are generally products that have been specifically designed for military applications, is under the jurisdiction of State. Munitions commodities include items that could be used in the design, development, or fabrication of nuclear weapons or explosive devices. Historically, State has received few requests for the export of these types of commodities. However, when requests are received, State usually refers the munitions export cases involving commodities in Category V (explosives, propellants, incendiary agents), Category VI (vessels of war special naval equipment), and Category XVI (Nuclear Weapons Design and Test Equipment) of the USML to Energy for review. State also refers export cases to Energy when a munitions commodity is to be used directly or indirectly in "nuclear explosive activities," or "unsafeguarded nuclear activities," and "safeguarded and unsafeguarded nuclear activities."

NTSP officials advised us that they have not been involved in any changes to the USML. They said that NTSP currently has no formal process to review proposed changes to the USML; however, should an occasion arise, the review process would be handled in the same manner as with proposed changes to the CCL.

**Status of Prior Report Recommendations**

On March 23, 2000, we issued a report entitled, "INSPECTION OF THE DEPARTMENT OF ENERGY'S EXPORT LICENSE PROCESS FOR FOREIGN NATIONAL VISITS AND ASSIGNMENTS," (DOE/IG – 0465). This report was prepared in accordance with the provisions of Section 1402(b) of the NDAA for FY 2000. The report contained eight recommendations.

Presently, the Department has completed corrective actions for two of the eight recommendations, and the two recommendations have been closed. The Department has not completed corrective actions for the remaining six recommendations, and the recommendations

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remain open. A brief discussion of the actions taken or planned and the status of each recommendation is at Appendix B.

**MANAGEMENT  
COMMENTS**

The Office of Defense Nuclear Nonproliferation had no comments or recommendations to the report as written.

## Appendix A

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### SCOPE AND METHODOLOGY

We conducted the fieldwork portion of our review during the period of September 2000 to December 2000 at Department of Energy (Energy) Headquarters and three Energy laboratories: Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Oak Ridge National Laboratory. We interviewed officials from the Headquarters Office of Nuclear Transfer and Supplier Policy (NTSP), which is in the Office of Arms Control and Nonproliferation, Office of Defense Nuclear Nonproliferation. NTSP is responsible for developing the Department's export control guidance. In addition, we interviewed contractor officials at the three Energy laboratories who provide technical assistance to NTSP on export control matters.

We also reviewed applicable laws, Executive orders, regulations, and Department guidance regarding Energy's export licensing process for dual-use and munitions commodities.

This inspection was conducted in accordance with the "Quality Standards for Inspections" issued by the President's Council on Integrity and Efficiency.

## Appendix B

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### CURRENT STATUS OF REPORT RECOMMENDATIONS

The following is the current status of recommendations in the March 23, 2000, report entitled, "INSPECTION OF THE DEPARTMENT OF ENERGY'S EXPORT LICENSE PROCESS FOR FOREIGN NATIONAL VISITS AND ASSIGNMENTS," (DOE/IG - 0465).

Regarding recommendation 1, we recommended that the Department ensure that senior Energy officials work with senior Commerce officials to assure clear, concise, and reliable guidance is obtained in a timely manner from Commerce regarding the circumstances under which a foreign national's visit or assignment to an Energy site would require an export license.

The Department reported that on April 20, 2000, guidance on "deemed exports" was published and submitted to all Department elements and that this guidance was reviewed by the Field Management Council and approved by the Deputy Secretary. The guidance explains what a "deemed export" is, when a "deemed export" requires an export license, and how a "deemed export" can occur. The guidance also provides directions for technical reviews to occur by facility individuals familiar with technology, equipment or material involved and with applicable export control regulations.

Status: Based upon the Department's actions, the recommendation was closed.

Regarding recommendation 2, we recommended that the Department ensure that a proposed revision of the Energy Notice concerning unclassified foreign visits and assignments include the principal roles and responsibilities for hosts of foreign national visitors and assignees.

The Department reported that the recommendation is consistent with the current and ongoing DOE initiative to update and clarify foreign visit and assignment policy. The Department further reported that the new draft DOE Order 142.X, "UNCLASSIFIED VISITS AND ASSIGNMENTS BY FOREIGN NATIONALS," includes the principal roles and responsibilities for hosts of foreign national visitors and assignees.

Status: This recommendation remains open pending issuance of the DOE Order.

Regarding recommendation 3, we recommended that the Department include a requirement for Energy and Energy contractor officials to enter required foreign national visit and assignment information into the Foreign Access Records Management System (FARMS), or a designated central data base, in a complete and timely manner.

The Department reported that a new Energy-wide information system, the Foreign Access Centralized Tracking System (FACTS), has been developed and implemented. The Department further advised that draft DOE Order 142.X includes the requirement for all sites to enter required foreign national visit and assignment information into FACTS, in a complete and timely manner.

Status: This recommendation remains open pending issuance of the DOE Order.

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Regarding recommendation 4, we recommended that the Manager of the Department's Oak Ridge Operations Office ensure that requests for foreign national visits and assignments at the Oak Ridge site are reviewed by the Y-12 National Security Program Office (NSPO) to assist in identifying those foreign nationals who may require an export license in conjunction with the visit or assignment.

The Department reported that to ensure that requests for foreign national visits and assignments at the Oak Ridge National Laboratory (ORNL) receive appropriate export license consideration, ORNL has initiated a system of reviews. Under this system, all requests are reviewed by five different disciplines (Cyber Security, Export Control, Classification, Counterintelligence, and Security). In addition, requests associated with concerns are referred to the Non-Citizen Access Review Committee for resolution. The Department further reported that while each of these reviews can involve NSPO, it is the specific responsibility of the ORNL Export Control Office to refer requests to NSPO as necessary.

Status: Based upon the actions taken by the Oak Ridge Manager, the recommendation was closed.

Regarding recommendation 5, we recommended that the Department ensure that the requirements in the revised Energy Notice for unclassified foreign national visits and assignments are clearly identified and assigned to responsible officials or organizations.

The Department reported that draft DOE Order 142.X includes clear identification of requirements and assignments to responsible officials or organizations.

Status: This recommendation remains open pending issuance of the DOE Order.

Regarding recommendation 6, we recommended that the Department ensure that guidance issued by NTSP to advise hosts of their responsibilities regarding foreign nationals includes the appropriate level of oversight to be provided by the host during the period of the visit or assignment.

The Department reported that draft DOE Order 142.X includes the principal roles and responsibilities for hosts of foreign national visitors and assignees.

Status: This recommendation remains open pending the issuance of the DOE Order.

Regarding recommendation 7, we recommended that the Department revise the Energy policy regarding foreign national visits and assignments to ensure that consistent information is being maintained by Energy sites regarding foreign nationals visiting or assigned to work at the site.

The Department reported that draft DOE Order 142.X requires development of consistent information and input into FACTS. Actions are underway to implement standard templates to upload historical information from DOE sites' legacy systems into FACTS.

Status: This recommendation remains open pending the issuance of the DOE Order.

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Regarding recommendation 8, we recommended that the Department require that all Energy sites having foreign national visitors or assignees enter information regarding the visits or assignments into FARMS, or a designated central Energy database.

The Department reported that FACTS has been developed and implemented and that draft DOE Order 142.X includes the requirement for all sites to enter required foreign national visit and assignment information into FACTS, in a complete and timely manner.

Status: This recommendation remains open pending the issuance of the DOE Order.

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