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DOE PERFORMING NUCLEAR NONPROLIFERATION RESPONSE, 04/24/1991, Testimony

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STATEMENT OF JOHN C. TUCK
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U.S. DEPARTMENT OF ENERGY
before the
COMMITTEE ON ENERGY AND COMMERCE
OVERSIGHT AND INVESTIGATIONS SUBCOMMITTEE
U.S. HOUSE OF REPRESENTATIVES
DOE's NUCLEAR NON-PROLIFERATION ROLE
April 24, 1991

Mr. Chairman, I appreciate the opportunity to appear before your

Subcommittee today to discuss the role of the Department of Energy (DOE) in performing its nuclear nonproliferation responsibilities, including the interaction between DOE and other U.S. Government agencies and international organizations.

As you requested in your letter of April 10, 1991, I will direct my remarks primarily to the Department's role in performing its nuclear nonproliferation responsibilities.

As President Bush stated in his first State of the Union message, "The spread of nuclear weapons must be stopped Our diplomacy must work every day against the proliferation of nuclear weapons." This has been the policy of every President since the advent of nuclear weapons on August 6, 1945. The implementation of this policy has never been so evident as with the actions taken with regard to Iraq in the past few months. The conditions which the U.S. Government insisted that Iraq accept for a permanent ceasefire include several specifically designed to halt and reverse Iraq's efforts to develop and produce nuclear, chemical, or biological weapons and the missiles to deliver them. Iraq's Scud missile attacks on Saudi Arabia and Israel were a reminder that these could have been launched with warheads other than high explosives. If Iraq's nuclear and chemical/biological and missile programs were allowed to proceed unchallenged, other countries could be the target of such an aggressive regime within the next decade.

The Department, under the direction of Secretary Watkins, is firmly committed to President Bush's goal of stopping nuclear proliferation and we take our responsibilities in this area very seriously. Because we recognize that this goal is one of our most difficult challenges, DOE has, in cooperation with other interested agencies, undertaken major efforts to achieve it. First let me cover recent organizational changes initiated by Admiral Watkins before I discuss DOE's nonproliferation role.

RECENT REORGANIZATION ACTIVITIES: At the time of his appointment as Secretary of Energy in March 1989, it was immediately apparent to Admiral Watkins that the general organizational and management responsibilities of the Office of the Assistant Secretary for Defense Programs were too far-reaching and complex for one individual to oversee. The Admiral recognized that in order to establish better downsize the overall role and responsibilities of the ASDP to include management and accountability of this office, it would be necessary to only the national security related functions of Nuclear Weapons Research, Development and Production, Nuclear Materials Production, and Arms Control and Verification.

Admiral Watkins also became concerned with a number of issues related to DOE's **intelligence** program as well as the status of safeguards and security throughout the complex. This caused him to take two separate actions to address these matters.

First, he asked retired Rear Admiral Sumner Shapiro, formerly Chief of Naval **Intelligence**, who had completed a comprehensive study of DOE's **intelligence** programs in April 1988, to once again evaluate the program and provide his recommendations for setting a new direction.

Second, he commissioned a study conducted by retired Army Major General James E. Freeze to review the broad area of safeguards and security.

Based on the findings and recommendations resulting from those studies the Secretary directed organizational realignments to clarify and strengthen accountability and responsibility for **intelligence** and safeguards and security related activities while concurrently reducing the span of control for the overburdened Assistant Secretary for Defense Programs.

On April 6, 1990, Secretary. Watkins transferred DOE's **intelligence** programs from the Assistant Secretary for Defense Programs into a newly created Office of **Intelligence** headed by the Honorable Robert W. Daniel, Jr. And, on April 1, 1991, the Secretary established an Office of Security Affairs whose primary responsibilities include the safeguards and security throughout DOE and the classification and protection of Restricted Data and national security related information entrusted to the Department. These functions will now report directly to my office.

On a broader front, Admiral Watkins was concerned by the Department's lack of a single, high-level individual who could serve him as a scientific and technical advisor. Crosscutting issues that he felt were not being adequately addressed included:

- o the overall health of the DOE National Laboratory system, and, in particular, the effectiveness of Laboratory efforts for both DOE sponsors and sponsors in other agencies of the Federal government;
- o priority setting and integration among DOE research programs; and
- o the overall vigor and direction of the Department's technology transfer program.

To obtain impartial advice on all three areas, Admiral Watkins will soon formally establish a Department-wide Science and Technology Advisor, with Deputy Science and Technology Advisors for major portions of the Department's R&D program--both for defense and civilian applications. One key feature of this reorganization will be the implementation to a Director of Technology Utilization under the assignment of coordination of DOE technology transfer policy and Science and Technology Advisor. This position will promote the coherence of the overall Department program in support of technology transfer.

To improve the nuclear nonproliferation posture of the Department, on April 1, 1991, Secretary Watkins, transferred the Technology Policy Division's export control and nonproliferation responsibilities to the Office of Arms Control in Defense Programs. This, I believe, is the first step in an evolving process to combine the various nonproliferation activities and responsibilities within one office reaction to any one event but that the Secretary has had this issue within the Department. It should also be noted that this is not a under consideration since the Fall of 1989. The export control and associated nuclear nonproliferation functions now complement those responsibilities of the Arms Control Office relating to the control of missile, chemical, and biological weapons and verification technology.

DOE'S ROLE IN NUCLEAR NONPROLIFERATION ACTIVITIES

INTERAGENCY NONPROLIFERATION ACTIVITIES: U.S. nonproliferation

policy and initiatives are developed by an interagency group composed primarily of representatives from the Department of Energy, the Department of State, the Arms Control and Disarmament Agency, the Department of Defense and the Department of Commerce. These agencies are represented on the Nonproliferation Policy Coordinating Committee which is chaired by the Department of State.

EXPORT CONTROLS: Most of the Department's export control activities are based on two statutory provisions: Section 57b of the Atomic Energy Act of 1954 and Section 309(c) of the Nuclear Non-Proliferation Act of 1978.

Section 57b of the Atomic Energy Act requires that U.S. firms or individuals intending to engage, directly or indirectly, in the production of special nuclear material outside the United States obtain the authorization of the Secretary of Energy. The Federal regulations that implement this statutory requirement appear as 10 CFR Part 810. Because of the significance of this responsibility, the Atomic Energy Act does not permit the Secretary of Energy to delegate the authorizing function.

At the present time, U.S. persons intending to engage in activities falling within the scope of 10 CFR Part 810 must submit an application to the Department of Energy's Office of Defense Programs. A DOE staff analysis and a proposed recommendation to the Secretary are circulated to the Department of State for concurrence and to the Departments of Defense and Commerce, the Arms Control and Disarmament Agency, and the Nuclear Regulatory Commission for their views. Only after the other agencies have been consulted does the Secretary determine whether or not to authorize the activity.

I might mention that we have had only one Part 810 case for Iraq in recent years. This was in 1990 and involved a U.S. company that had been asked to present a training course at the Tuwaitha Nuclear Research Center. On July 13, 1990, DOE staff informed the applicant that because the proposed activity was contrary to existing policy, they were unable to recommend approval to the Secretary.

Section 309 (c) of the Nuclear Non-Proliferation Act requires the Department of Commerce to control dual-use exports of potential nuclear concern. On June 9, 1978, the Departments of State, Energy, and Commerce jointly published "Procedures Established Pursuant to the Nuclear Non-Proliferation Act of 1978," to jointly establish and maintain a list of such export items, known as the Nuclear Referral List. Whenever Commerce receives an application to export an item on refers the application to DOE for a review and recommendation. In the Nuclear Referral List to a country of proliferation concern, it keeping the list up to date and in making reviews, the Department of Commerce relies extensively on the technical experts within the Department as well as its contractor facilities to assess the significance of the technology involved, its value to a would-be nuclear proliferant, and the ease and likelihood of its diversion to a clandestine nuclear program.

Whenever DOE's review of dual -use cases raises a potential proliferation concern, DOE refers the case to the Subgroup on Nuclear Export Coordination (SNEC), an interagency forum mandated by the Nuclear Non-Proliferation Act. The Department of State chairs the Subgroup and DOE serves as the Secretariat. Other

members of the Subgroup on Nuclear Export Coordination are the Departments of Defense and Commerce, the Arms Control and Disarmament Agency, and the Nuclear Regulatory Commission. The Central **Intelligence** Agency, National Security Agency and the Defense **Intelligence** Agency have observer status.

INTERNATIONAL NONPROLIFERATION ACTIVITIES: In order to control proliferation of nuclear weapons, a viable and effective international nonproliferation regime must be in place. The two major components of such a regime are the Nuclear Nonproliferation Treaty (NPT) and the International Atomic Energy Agency (IAEA). To monitor compliance with NPT provisions, the Treaty provides for the application of international safeguards by the International Atomic Energy Agency. The IAEA safeguards system and technical assistance activities, to keep IAEA a strong viable organization and to support for the IAEA, its strong viable organization and to maintain and monitor effectiveness of IAEA safeguards.

The Department also participates in varied bilateral and multilateral activities with other countries to promote and strengthen international nonproliferation activities including control of exports by supplier countries. In this regard, DOE has been an active participant in various international export control mechanisms -- including the Coordinating Committee on Multilateral Export Controls (COCOM), the Zangger Committee and the Nuclear Suppliers Group.

COCOM is comprised of our NATO allies, minus Iceland, plus Japan and Australia. COCOM members agree to control exports of strategic significance to the Soviet Union, the People's Republic of China, and their allies. DOE, along with the other agencies, provides the technical and policy support to the Department of State in formulating COCOM's Industrial List (IL) of dual-use commodities; DOE provides the principal support in formulating COCOM's International Atomic Energy List (AEL) which describes nuclear materials, equipment, and technologies considered to be of strategic significance.

The Zangger Committee, based in Vienna, Austria, implements Article III of the Nuclear Non-Proliferation Treaty, which prohibits the export of specially designed equipment or material used in the production of special nuclear material unless under International Atomic Energy Agency (IAEA) safeguards. The Committee has developed a so-called "trigger list" of items that trigger the mandatory implementation of IAEA safeguards to ensure peaceful use.

DOE, in conjunction with the Department of State and other agencies, has initiated the upgrade of the "trigger list" for the control of gas centrifuge and gaseous diffusion enrichment and reprocessing components. DOE has also developed and published a guide on gaseous diffusion and gas centrifuge equipment to assist officials in this and other countries in enforcing export control laws based on the Zangger "trigger list."

The Nuclear Suppliers Group (NSG) -- of which France is a member -- was formed at the initiative of the United States and in response to the Indian nuclear explosion in 1974. The aim was to address the need for more comprehensive guidelines for control of exports of nuclear technology. The Zangger list controls only equipment and material especially designed for the production of special nuclear material. It does not address technology, nor does it

address dual-use components that can contribute to a nuclear explosive.

Last year, the U.S. Government began a series of bilateral discussions with other countries to lay the groundwork for establishing an International Dual-Use List of items that all supplier countries should control from a nuclear proliferation standpoint. These bilateral discussions led to a meeting of 26 nuclear supplier countries in March in The Hague at which there was a clear consensus that such an International Dual-Use List should be adopted.

Allow me to note that the International Dual-Use List effort traces back to an initiative launched in March 1990 by the Department of Energy. And, drawing on the expertise of the DOE nuclear weapons laboratories, DOE developed a draft list that the U.S. Government is circulating to the other supplier countries. DOE also is participating DOE-drafted U.S. Government list to form the basis of these in the bilateral and multilateral meetings and we expect the discussions.

INTELLIGENCE SUPPORT: **Intelligence** support is key to the success of our nonproliferation actions. The Department of Energy's national laboratory complex provides much of the technical undergirding for the U.S. **Intelligence** Community's extensive research and analysis on nuclear proliferation. For over fifteen years DOE **Intelligence** and its national laboratory resources have been leaders in the establishment and development of the proliferation **intelligence** program, in constant agencies. Resources have been arrayed in direct support of numerous and close coordination with all U.S. **Intelligence** Community member U.S. nonproliferation policy determinations and enforcement activities.

DOE's **intelligence** capabilities and performance in the nuclear proliferation field are second to none and have been highly supportive of this Department's senior management as it carries out its critical nuclear nonproliferation responsibilities. As I mentioned in my introduction, DOE's **intelligence** program was removed from Defense Programs a year ago to restore the balance between **intelligence** support for defense and for non-defense programs. Additionally, we brought in a new management team, under the direction of Mr. Daniel, to augment the program's responsiveness to Secretary Watkins' priorities, guidance and requirements. Additional resources have also been committed to this important function.

This transition was effected without disruption to our proliferation **intelligence** program which, I wish to emphasize, has consistently kept our senior management informed about foreign nuclear programs of proliferation concern. For example, the Iraqi nuclear program has been under close scrutiny for a very long time, and in my two-year tenure as Under Secretary the DOE **intelligence** program has been a U.S. Government leader in properly characterizing Iraqi nuclear capabilities and associated with the Iraqi nuclear program and furnished this data to intentions. As another example, we identified and prioritized targets the Department of Defense in support of Operation Desert Storm.

DOE's Role in UN Military Denuclearization Plan for Iraq: One of the most recent significant international non-proliferation actions taken by the Department was directed at Iraq. In the wake

of the Gulf War, DOE's nonproliferation community played a critical role in formulating the U.S. Government's plan for eliminating Iraq's future capability to develop nuclear weapons. In an outstanding example of that, in two-and-a-half days of intensive effort, prepared a detailed assessment of what it would take in terms of personnel, time, and money to ensure Iraq's military denuclearization well into the future. Admiral Watkins recently wrote to Secretary of State Baker, on April 12, 1991, that he had "...taken steps to ensure that the Department of Energy's considerable **intelligence** and technical resources stand ready to support the United Nations-mandated demilitarization of Iraq's nuclear program." A DOE task force is assisting Secretary Baker under the direction of Dr. Victor Alessi, Director of Arms Control.

SUMMARY

DOE, led by Admiral Watkins, continues to play a very important role in both U.S. Government and international efforts to prevent the further proliferation of nuclear weapons. We take our responsibilities very seriously and are continuously reviewing our performance to look for ways in which to improve.

Mr. Chairman, that concludes my statement. I would be pleased to answer any questions that you or other members of the Subcommittee may have.