THE WHITE HOUSE

WASHINGTON

November 3, 1993

PRESIDENTIAL DECISION DIRECTIVE/NSC-15

MEMORANDUM FOR THE VICE PRESIDENT
THE SECRETARY OF STATE
THE SECRETARY OF THE TREASURY
THE SECRETARY OF DEFENSE
THE SECRETARY OF ENERGY
DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET
U.S. PERMANENT REPRESENTATIVE TO THE UNITED NATIONS
CHIEF OF STAFF TO THE PRESIDENT
ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY AFFAIRS
DIRECTOR OF CENTRAL INTELLIGENCE
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
DIRECTOR OF THE ARMS CONTROL AND DISARMAMENT AGENCY

SUBJECT: U.S. Policy on Stockpile Stewardship Under an Extended Moratorium and a Comprehensive Test Ban (S)

This Presidential Decision Directive (PDD) establishes and directs the implementation of U.S. policy on the stewardship of the U.S. nuclear weapons stockpile under the conditions of an extended moratorium on U.S. nuclear testing and a Comprehensive Test Ban (CTB). (S)

Background

PDD-11 (signed July 4, 1993) established and directed the implementation of U.S. policy on nuclear testing and a CTB. PDD-11 stated the United States would seek to negotiate a multilateral nuclear test ban and extended the current U.S. nuclear testing moratorium through the first annual Congressional reporting and authorization period established in the Hatfield-Exon-Mitchell Amendment (i.e., through September 30, 1994) provided no other state tested. (S)

PDD-11 also directs the Department of Energy to formulate a specific safeguard program to compensate for the effects of a CTB and protect the capability to resume U.S. nuclear testing. A Safeguards Task Force co-chaired by the Department of Energy and the Department of Defense was formed to implement this directive. The Task Force Report, "Plan for Stockpile Stewardship Under a Test Ban," was submitted to the Interagency Working Group (IWG)

on Defense Policy and Arms Control on August 19, 1993 and approved by relevant agencies on October 7, 1993. ~~(S)~~

Following the nuclear test conducted by China on October 4, 1993, I approved policy guidance directing the Department of Energy to take such actions as are necessary to put the United States in a position to be able to conduct nuclear tests next year provided the notification and review conditions of the Hatfield-Exon-Mitchell Amendment are met in the Spring of 1994. My ultimate decision to test or not test will be based on U.S. fundamental national security interests and will take into account (1) the contribution further tests would make in improving the safety and reliability of the U.S. arsenal in preparation for a CTB, (2) the extent to which China and others have responded to the U.S. appeal for a global moratorium, (3) progress in the CTB negotiations and (4) the implications of further U.S. nuclear tests on our broader nonproliferation objectives, including indefinite extension of the NPT in 1995. The stockpile stewardship measures directed in this PDD are to be implemented whether or not I decide to ask Congress for the authority to conduct a test or tests next year. ~~(S)~~

Plan for Stockpile Stewardship

The continued maintenance of a safe and reliable U.S. nuclear deterrent is a cornerstone of U.S. national security policy. The objective of the Plan for Stockpile Stewardship is to maintain a high level of confidence in the safety, reliability and performance of the U.S. nuclear weapons stockpile in the absence of nuclear testing. (U)

Achieving this objective will require (a) continued use of current facilities and programs, (b) a limited set of new experimental and computational facilities and programs, (c) strengthened integration of all program areas, (d) a long term commitment to support these programs and (e) periodic review and evaluation of all program elements. (U)

The Plan will be structured around a strategy of using past nuclear test data in combination with future, nonnuclear test data and aggressive application of computational modeling, experimental facilities and simulators to further comprehensive understanding of the behavior of nuclear weapons and the effects of radiation on military systems. (U)

The Plan will include stockpile surveillance; experimental and research, development and engineering programs; and the maintenance of a production capability to support these efforts. (U)

Program Elements

Specific program elements of the Stockpile Stewardship Plan, while conditioned to an extent by the eventual terms of a CTB Treaty, generally will consist of:

-- Stockpile surveillance and evaluation. Key elements include laboratory system testing, joint flight testing, laboratory component testing, retirement testing and reliability assessment. (U)

-- Hydrodynamic testing and hydronuclear experiments. The loss of nuclear testing to assess and evaluate the safety, reliability and performance of the stockpile will require improved and expanded hydrodynamic testing and hydronuclear experiments at the Nevada Test Site (NTS). ~~(C)~~

Major new hydrodynamic testing programs will include developing baseline hydrodynamic experimental data for the enduring stockpile and increasing the number of hydrodynamic experiments as part of the stockpile sampling and aging programs. Hydrodynamic testing also will support a development program necessary to help retain and exercise weapon design engineering skills and to examine safety modifications in existing nuclear warhead designs that could be introduced into the stockpile without nuclear testing in case they are needed in the future. (U)

Guidance with respect to hydronuclear experiments remains the same as that articulated in PDD-11: the U.S. will seek to negotiate a CTB Treaty that does not preclude the conduct of hydronuclear experiments similar to those conducted during the 1958-1961 U.S. testing moratorium. The NSC was tasked in PDD-11 to coordinate the interagency legal and policy review on whether experiments for (a) rendering safe a mock terrorist device, (b) ensuring that a U.S. weapon that had been seized by unfriendly forces could not generate a nuclear yield and (c) other hydronuclear experiments can and should be conducted under the conditions of an extended moratorium. This follow-up review should be submitted to me for decision no later than December 6, 1993. ~~(S)~~

-- Weapons physics experiments. Weapons physics experiments are required to provide improved data to assess the stockpile. Key elements include increasing the shot rate on existing laser and pulsed power facilities, as well as the construction of new facilities for simulation of nuclear secondary processes. (U)

-- Military systems, radiation hardness and weapon effects simulation. Nuclear weapons and their components, nuclear capable missiles and aircraft and many other military systems must be hardened against adverse radiation environments. The Plan will ensure that the appropriate simulation capabilities are available for the radiation

certification requirements for materials, subsystems, components and military systems. (U)

-- Review and analysis of historical data. Key elements of such a program are researching, cataloging, analyzing and preserving the design, test, engineering and manufacturing data for weapons and weapon experiments, and developing and maintaining computer based archives to help maintain our scientific and technical knowledge base. Additional nonnuclear experiments may be necessary to complete the data base for modern stockpile devices and military systems. (U)

-- Numerical simulation. The objective of this program will be to enhance significantly our numerical simulation capabilities through the use of advanced computers and new numerical simulation techniques. (U)

-- Engineering design and development. Enhancements in the engineering design and development program will be required to provide effective stockpile stewardship. Current capabilities will focus on assessing and responding to aging effects, modifications in operations and logistics and changes in military requirements. Enhanced program elements will provide the information required for understanding the design, output and effects issues and solutions unique to nuclear weapon systems, a basis for addressing modifications to stockpiled weapons resulting from changes to logistics or system requirements and expansion of the current analytical tools to characterize warhead response to a broader set of normal, abnormal and combined environments. (U)

-- Chemistry and materials. Key elements include improved characterization of both nuclear and nonnuclear material properties, aging studies and material compatibility issues. (U)

-- Production capability. Production and Laboratory Capability Assurance Programs and Complex 21 Reconfiguration activities are evaluating changes to this capability and the nature of the residual complex is still being defined. In the near term, to support effective stockpile stewardship, additional production resources will be necessary to support an enhanced stockpile surveillance program, functional and environmental test requirements, hydrodynamic and hydronuclear experiments. (C)

-- Safeguards. Safeguards are considered an essential element in ensuring the nation's ability to have the technical means and knowledge necessary to support the nuclear deterrent. The stockpile stewardship plan described in this PDD functionally satisfies the intent of the historical safeguards. With respect to Safeguard C, the emphasis should shift to the retention of the capability to resume underground (vice atmospheric) nuclear testing should the U.S. cease to be bound by a CTB. (U)

-- Maintaining the capability to resume testing. Under a CTB, keeping a viable infrastructure and staff at the Nevada Test Site, the Department of Energy's nuclear weapons laboratories and the Defense Nuclear Agency will be a fundamental requirement to retain the capability to resume nuclear test activities. Nevada Test Site resources should, therefore, include (1) those necessary to conduct the appropriate experimental activities, (2) infrastructure that would allow for future return to underground nuclear testing, (3) those which will permit other program efforts, (4) the continuation of environmental and health related functions, and (5) activities to assure public safety and physical protection. (U)

In order to resume underground nuclear tests, a capability to conduct a nuclear test within 6 months up to FY 1996, and to conduct a nuclear test within 2-3 years after that time will be assumed by the Department of Energy. (U)

Implementation

The Department of Energy, Department of Defense and Office of Management and Budget will ensure that sufficient resources are devoted to this objective. This will require increased funding for DOE and DOD research, development and testing activities, as well as for construction of new and upgraded experimental facilities as envisioned in the Task Force Report over the next several years. The estimated costs in the Report should be used as a long-term guide for the program; however, precise funding requirements will be determined in conjunction with the appropriate fiscal year budget cycle. (U)

On July 31 of each year, the Assistant Secretary of Energy for Defense Programs and the Assistant Secretary of Defense for Atomic Energy shall submit a Joint Report to the IWG that includes (a) a review of the stockpile stewardship plan for the first ten months of the current fiscal year, and (b) recommendations for the next fiscal year. These recommendations will be reviewed by the IWG and will then serve as a basis for planning for the next fiscal year. ~~(C)~~

The NSC staff shall ensure that the appropriate Members of Congress are briefed on this Plan and provided with annual updates. (U)

William J. Clinton