

DOE/IG-0484

AUDIT  
REPORT

MANAGEMENT OF THE NUCLEAR  
WEAPONS PRODUCTION  
INFRASTRUCTURE



SEPTEMBER 2000

U.S. DEPARTMENT OF ENERGY  
OFFICE OF INSPECTOR GENERAL  
OFFICE OF AUDIT SERVICES

September 22, 2000

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)  
Inspector General

SUBJECT: INFORMATION: Audit Report on "Management of the Nuclear Weapons Production Infrastructure"

BACKGROUND

Since the cessation of underground testing of nuclear weapons in the early 1990's, the Department of Energy's responsibility to ensure the safety, security, and reliability of the nuclear weapons stockpile has been met through its Stockpile Stewardship Program. This program includes a wide range of activities: stockpile surveillance, stockpile maintenance, non-nuclear experimentation and testing, and computational simulation.

Successful implementation of the Stockpile Stewardship Program is a key underpinning of the Secretary's annual certification to the President that the nuclear stockpile is safe and reliable.

In 1998, the Department concluded that maintenance problems existed within the nuclear weapons complex. Postponement of repairs to aging and deteriorating weapons complex facilities had resulted in a \$422 million maintenance and repair backlog at the production facilities. At that time, the Department planned to initiate actions to resolve these maintenance issues. The objective of the audit was to determine whether the Department had maintained the nuclear weapons production infrastructure to meet current and future goals of the Stockpile Stewardship Plan.

RESULTS OF AUDIT

Because the nuclear weapons production infrastructure has not been adequately maintained, current and future goals of the Stockpile Stewardship Program are at risk. Although the data available to us suggests that current military requirements were being met, the deterioration of the infrastructure has resulted in delays in weapons modification, remanufacture and dismantlement, and in the process of surveillance testing of nuclear weapons components.

The audit disclosed that the Department had not fully implemented a process to link workload, production capacity, and budget information with facility requirements. As a result, some Stockpile Stewardship Plan milestones and goals have slipped or have not been attained, restoration costs have increased, and future nuclear weapons production work, as required by

Presidential Decision Directives, is at risk. Knowledgeable officials within the National Nuclear Security Administration and the Department of Defense have estimated that the Department must invest \$5 billion to \$8 billion more than current budgeted amounts over the next 10 years to offset the effects of delayed or neglected infrastructure activities.

We recommended that the Administrator for the National Nuclear Security Administration develop an overall infrastructure restoration plan based on individual site plans and current and planned stockpile workload requirements. In our judgment, the infrastructure restoration plan, among several benefits, would provide a documented rationale for future weapons complex maintenance funding requests. It would also provide the basis to monitor performance of the individual sites and ensure accountability for funding decisions.

The findings in our report are consistent with observations made by the Under Secretary in his November 1999 report, *U.S. Department of Energy Stockpile Stewardship Program 30-Day Review*. The Under Secretary described a large "bow wave" of deferred improvements needed to address "aged and marginally maintained" facilities. Based on this study, the Department, in May 2000, initiated a comprehensive review of infrastructure challenges facing the Nuclear Weapons Production Complex.

Our report includes descriptions of a number of specific maintenance problems that, if not corrected in a timely fashion, could jeopardize achieving significant aspects of the Department's Stockpile Stewardship Program.

### MANAGEMENT REACTION

The Administrator, National Nuclear Security Administration, concurred with the report conclusions and recommendations. He advised that Phase II of the Facilities and Infrastructure Initiative study now underway would include actions responding to each of the audit recommendations. Management's comments are provided verbatim at Appendix 4 of the audit report.

Attachment

cc: Deputy Secretary  
Under Secretary for Energy, Science and Environment  
Under Secretary for Nuclear Security/Administrator for Nuclear Security

# Management Of The Nuclear Weapons Production Infrastructure

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## Overview

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### INTRODUCTION AND OBJECTIVE

Since the 1940s, the Department of Energy (Department) and its predecessor agencies have been responsible for providing the Nation with nuclear weapons and ensuring these weapons remain safe, reliable, and available for the defense of the United States, should the need arise. Currently, overall responsibility for the direction of the Department's program is vested in the National Nuclear Security Administration (NNSA).

After the end of the Cold War, the Department's weapons program was refocused from the mass production of new types of warheads to maintaining production capabilities and components for a reduced nuclear weapons stockpile. The Department's program incorporates its national laboratory system and industrial production facilities collectively known as the Nuclear Weapons Complex. Government contractors operate the Nuclear Weapons Complex. Most production activities are performed at industrial facilities such as the Y-12 Plant in Tennessee, the Kansas City Plant, the Pantex Plant in Texas, and the Savannah River Site in South Carolina.

Many of the Department's production facilities were built during the 1940s through the 1960s. Generally, contractors operating these facilities are directed by the Department to modify and remanufacture existing weapons systems, perform surveillance and assurance tests, build limited life components and repair parts, construct joint test assemblies for surveillance, and dismantle warheads removed from the active or inactive stockpile. These activities are part of the Stockpile Stewardship Plan, which is a corporate level, multi-year program plan that describes the strategy to ensure high confidence in the safety and reliability of the nuclear weapons stockpile. The Department is to regularly evaluate the reliability of nuclear weapons so that it can, on an annual basis, provide the President with assurance of nuclear stockpile reliability and safety. This is to be based on rigorous technical analyses that lead to formal concurrence by the Directors of the three weapons laboratories, the Commander-in-Chief of the U.S. Strategic Command, and the Nuclear Weapons Council.

In 1997 and 1998, the Department issued a two-phased "Facilities and Maintenance Study" that reported aging and deterioration of weapons production facilities had created a \$422 million maintenance and repair backlog, while facility maintenance budgets had declined 25 percent since 1994. In light of the concerns raised, the objective of the audit was to determine whether the Department was maintaining the nuclear weapons production infrastructure to meet current and future goals of the Stockpile Stewardship Plan.

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## CONCLUSIONS AND OBSERVATIONS

Current and future goals of the Stockpile Stewardship Plan (Plan) are at risk because the nuclear weapons production infrastructure has not been adequately maintained. Presently, the requirements of the Plan exceed current and anticipated production plant capabilities. To illustrate the extent of the problem:

- Since the closure of the Rocky Flats Plant, the Department has not reestablished the capability to produce a certified plutonium pit.
- During Fiscal Year 1999, weapons modification, dismantlement and surveillance-testing activities at the Pantex Plant were delayed due to infrastructure problems.
- At Savannah River, a backlog of surveillance tests exists for a limited-life weapons component.

The Department deferred substantial maintenance and upgrades on its production facilities in order to meet current operational needs. In total, Department of Energy and Defense officials estimated that, over the next 10 years, expenditures between \$5 billion and \$8 billion over current budgeted amounts will be needed to upgrade the production facilities to meet current and future Stockpile Stewardship Plan requirements.

The Department had not implemented a process to fully link workload, production capacity, and budget data to nuclear weapons production facility requirements. To alleviate this situation, we recommended that the Administrator for the National Nuclear Security Administration (NNSA) designate an overall science and production focal point to integrate weapon systems and production activities with infrastructure capabilities. Responsibilities should include updating all budgetary assumptions relating to stockpile requirements and developing a long-range plan to analyze and resolve weapons complex infrastructure issues. Future funding requests should reflect the revised assumptions and long-range plan. Further, NNSA should mandate the development and implementation of a performance management system to evaluate the adequacy and completeness of contractor planning efforts to integrate site resources with weapons science and production requirements.

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Due to national security implications, the matters discussed in this report should be considered when preparing the yearend assurance memorandum on internal controls.

Signed  
Office of Inspector General

## Weapons Production Management

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### Infrastructure Readiness

The Department has not been adequately maintaining the weapons complex manufacturing infrastructure to ensure that the current and future goals of the Stockpile Stewardship Plan are achieved. To date, the Department has been unable to reestablish the ability to build plutonium pits. It has also been unable to meet current modification and manufacture milestones at Pantex and Y-12 and a dismantlement schedule at the Pantex Plant. At Pantex and Savannah River, surveillance testing on weapon system components has been delayed. In addition, facility maintenance backlogs across the complex have significantly increased over the last several years. Unless implementation of the Plan is substantially improved, we believe that future modification, remanufacturing, and testing milestones are at risk.

#### Weapons Modification, Remanufacture, And Dismantlement Delays

The Los Alamos National Laboratory (LANL) has been attempting to reestablish the capability to fabricate and assemble plutonium pit components. Plutonium pits are needed for current surveillance testing requirements and to support future stockpile requirements. The Department's plan to meet such requirements was for LANL to produce up to 50 pits annually. Yet, we found that even if LANL achieves this goal, the Department may not be able to provide the needed capacity for future stockpile pit requirements.

Also, the Department, in 1999, was not able to meet the initial modification and remanufacture activities for the W87 weapons system due, in part, to delays in scheduled infrastructure maintenance. We found that half of the bays dedicated to modification and remanufacture in a Pantex facility were being upgraded for fire safety, lightning, and radiation protection. The upgrade construction project was first submitted to the Department in Fiscal Year 1988. Work did not begin until 1994 and was in progress during 1999. This was the same year the W87 effort was to begin.<sup>1</sup> We were advised that the Fiscal Year 1999 modification and remanufacture schedules for the W87 would not be completed until at least Fiscal Year 2002.

In addition, the Department planned to dismantle 328 retired weapons at Pantex during Fiscal Year 1999. However, only 207 were completed partly due to roof leaks – attributed to delayed repairs and preventive maintenance that resulted in standing water in some Pantex operating bays. The leaking roof caused a dismantlement work stoppage. Completion of this effort was rescheduled.

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<sup>1</sup>NNSA officials advised that other factors also contributed to the weapons schedule delays. For example, technicians needed training on the W87 modifications. Furthermore, other weapons system activities converged on the Pantex facility at the same time.

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At Y-12, the planning process for the life extension program for the W76 weapons system was scheduled to begin in Fiscal Year 2000. Despite the need for timely initiation of this program, the special materials facility needed to reestablish certain process capability and capacity had not been included in the Department's Fiscal Year 2000 budget request. Consequently, this program will be delayed. Although imprecise, the best information available to us suggests that the delay may be several years in duration.

#### Weapons Surveillance Testing And Limited Life Component Delays

The reliability of several weapon systems was also at risk because component surveillance testing has been delayed. The Department has used stockpile surveillance to examine existing components to detect potential problems that could affect weapons safety, reliability, and use control. In many instances, facilities utilized for surveillance testing were used for weapons refurbishment, maintenance, and dismantlement. The closure of production plants created backlogs of required tests, and as one NNSA official stated, "the Department's surveillance efforts are at the mercy of the capabilities and capacities of the production plants because the production plants are currently bandaiding their way through the required work."

For example, at Savannah River a 3-5 year backlog of surveillance tests exists for tritium reservoirs, which was created when the Mound Plant closed. The Department has since reestablished testing capability, but it has been unable to eliminate the backlog.

Several capacity issues have also arisen as a result of the need for more testing to accumulate data on aging weapon systems. For example, Pantex has needed new and additional radiography equipment to conduct non-destructive testing on pits and secondaries. Savannah River will need an additional test station to meet additional function tests associated with reservoir production sampling and life storage. The lack of testing capacity directly impacts the ability to certify the weapons in the stockpile.

#### Maintenance And Repair Delays

Preventive and predictive maintenance had not been performed when scheduled. The Department's defense complex was comprised of aging facilities that required increased maintenance and upgrades which were delayed to future periods. At three sites – the Kansas City, Pantex, and Y-12 Plants – the inventory of deferred maintenance actions increased

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almost 25 percent in just one year, from \$304 million in Fiscal Year 1998 to \$379 million in Fiscal Year 1999. The increase in deferred maintenance illustrates the significance of the problems disclosed during the audit.

We also found that at least one site, Y-12, provided inaccurate data on deferred maintenance for Fiscal Year 1999. An analysis of Y-12 Plant deferred maintenance data indicated that at least 87 buildings and 240 other structures and facilities were excluded from the Fiscal Year 1999 estimate. At least eight other buildings (including three major production facilities currently in use) were estimated to have zero deferred maintenance because they were expected to be surplus in about seven years, though maintenance would be required during that time period. As a result, the Department had little confidence that certain deferred maintenance data provided a sound basis for budgeting purposes or that it placed the Department in a position to determine the impact of deferred maintenance on stockpile reliability.

### **Weapons Complex Requirements**

The Department was required to maintain the weapons complex infrastructure at a level that ensures compliance with mission requirements that were developed with the Department of Defense and the Nuclear Weapons Council. Specific requirements governing this process are contained in:

- The Stockpile Stewardship Plan and a number of related classified documents.
- Department Orders 4330.4B-Chapter II and 430.1A and Federal Financial Accounting Standards. The Orders require use of the condition assessment survey to identify maintenance needs.
- The Department's "Defense Programs Facilities and Infrastructure Management Policy" requires annual preparation of individual site plans spanning a 10-year period.

### **Need For Overall Implementation Approach**

The Department did not have an overall implementation approach to manage its nuclear weapons production infrastructure and operated under funding constraints. Specifically, it did not have sufficient or accurate information to link weapons workload and production capability with facility requirements. Furthermore, no one individual was assigned the responsibility to integrate weapon systems activities with infrastructure capabilities or the authority to ensure necessary actions were taken.

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### Unchanged Budgeting Assumptions

Budget constraints have required Department contractors to work within fixed funding levels when workload and other unfunded mandates have increased operating costs. During the 1992-1993 preparation of the Final Programmatic Environmental Impact Statement for Stockpile Stewardship (PEIS) and related budgets, a determination was made that all aspects of the Stockpile Stewardship Program could be conducted over a 10-year period at a cost of \$45 billion. The Department established this funding level under the assumption that it would support a future U.S. stockpile of 3,500 weapons. This level was based on the proposed Strategic Arms Reduction Talks (START II). However, in Fiscal Year 1997 and subsequent years the Production and Planning Directives from the President and the Nuclear Weapons Council established a much higher workload based on a START I stockpile of 6,000 weapons, which became the planning benchmark. Consequently, the Department has supported a 6,000 weapon stockpile even though facility operating costs, since 1997, were budgeted for supporting 3,500 weapons.

There also have been several unfunded mandates not included in the PEIS that have been imposed on the production plant sites. These included increased requirements in the areas of safeguards and security; environment, safety and health; and waste management. Furthermore, an assumption was made that the Environmental Management program would undertake stewardship landlord responsibilities for excess facilities and that the weapons program would not bear the costs of caring for such facilities. Subsequently, the Department allowed Environmental Management to postpone accepting responsibility for excess facilities until some undetermined year after 2000. Therefore, the associated maintenance costs had to be absorbed in each plant's operating budget. Over the last several years, funding for production plant operations, excluding construction costs, has remained virtually constant at about \$1.9 billion annually.

### Departmental Implementation And Focal Point

The Department and its production sites were not able to fully address the budgetary constraints because they did not have accurate information to link overall workload production capacity and budget information with facility requirements. Such linkages are important if the Department is to achieve its intended mission outcomes and are envisioned by the Government Performance and Results Act (GPRA). Under the GPRA concept, accurate and continually updated long-range

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plans – fully integrated with annual budget requests – are critical components of results-oriented and defensible programmatic activities. Although there was a requirement for workload and budgetary information to be included in the Ten-Year Site Plan for each production site in the weapons complex, only two sites had completed these plans. Furthermore, no one individual was assigned responsibility for integrating the 10-year site information for a Departmentwide overview of this key information.

Pantex and Savannah River were the only production sites to consistently comply with the Department's Ten-Year Site Plan requirements for identifying, reporting, tracking, and developing a plan that related directed stockpile workload to current and future facility and funding needs. Also, Pantex was the only one to have performance objectives in its award fee structure to maintain a 10-year site planning process. Inconsistent implementation of plan requirements at the other four sites has hindered the Department's ability to link workload and budget information with facility requirements.

Individual sites reported and forecasted maintenance costs in their Ten-Year Site Plans that was inconsistent with data entered in the Department's Facilities Information Management System (FIMS). A prior report on *Facilities Information Management System* (DOE/IG-0468) concluded that the FIMS did not contain accurate and complete information. Also, the sites did not always assess the condition of the production plants as required. Finally, the Department had not developed contract performance measures to ensure a viable 10-year site planning process.

The Y-12 Ten-Year Site Plan for 1999 illustrated the importance of complete information being provided to Headquarters. In that plan, 13 major production facilities were mentioned; however, the plan did not indicate the condition of the facilities or whether current workload requirements could be met. One circumstance that contributed to this situation was that the Y-12 contractors had not performed a condition assessment survey or collected required maintenance data for any facilities for the past several years. Condition assessment surveys are a preliminary step toward preparing a Ten-Year Site Plan and focus on identifying current, as well as past, maintenance amounts needed for projecting future funding requirements for site facilities. In addition, the Y-12 Plan did not include a Headquarters initiative to identify the costs associated with modernizing the plant to meet future capacity needs. Y-12 preliminarily estimated that capital costs alone would range from \$2.9 billion to about \$4 billion for at least six facilities and utility upgrades.

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Department officials advised us that several of the production sites did not consider the development of Ten-Year Site Plans worthwhile because management's attention was only on current year not future year activities. Officials also asserted that no single individual at Headquarters had been designated this responsibility. The Deputy Assistant Secretary for Military Application and Stockpile Operations further indicated that the "Ten-Year Plans were not being used since the Department did not have long-term budgets." In implementing legislation, NNSA was required to plan, budget, and program activities through a 5-year budget planning cycle.

The Office of Inspector General has previously reported on the importance of long-range planning and the consequences of failing to adjust for changes in planning assumptions. In our January 2000 report on *The Management of Tank Waste Remediation at the Hanford Site* (DOE/IG-0456), we noted that because of a short-term management focus, the Department had failed to adjust planning documents that contained unrealistic milestones for the Tank Waste project. In our view, consequences for that project included increased cost estimates and potential damage to the Department's credibility.

Although we were assured that the Department has met current military requirements, its ability to meet other stockpile requirements is at risk. Discussions with responsible NNSA and contractor officials supported this concern.

## **Future Production at Risk**

One illustration of this problem was the failure of the Department to request or properly fund a special materials facility at Y-12 needed for the W76 and other weapon systems. While we recognize that significant policy judgments were involved here, we noted that planning for this facility was to begin the first quarter of Fiscal Year 2000. Yet, as of June 1, 2000, the Department had not requested line item funding for the facility. Under the current budget process, approximately 7 years may be needed to obtain line item funding for projects of this type. Consequently, established milestones for the W76 may need to be rescheduled. Departmental officials have since advised that funding for the Special Materials Facility is in the Fiscal Year 2001 budget as a Preliminary Project Design and Engineering Project.

At LANL, the Department has not produced a war reserve (certified) pit. In addition to funding for meeting current production needs, the Department may need to expend an additional \$2 billion for a facility to meet future pit replacement requirements. Department officials

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cautioned that the need for such a facility and future pit requirements were still being evaluated.

Deferring maintenance in the nuclear weapons production infrastructure has also impacted long-term safety and health concerns and replacement costs. For example, Y-12 used \$8.5 million of plant improvement funding to cover unplanned costs related to current operational workload requirements. Y-12 had planned to invest \$5 million of the \$8.5 million in a new changehouse to ensure the health and safety of production workers. Y-12, however, has since decided to spend \$1.1 million to improve an existing changehouse. The contractor had previously determined that the cost to repair and replace the failed systems in this changehouse would result in long-term cost inefficiencies for the Government. By choosing to meet short-term production goals over long-term improvements, Y-12 cannot ensure a suitable workplace for its production workers in the future and the estimated cost of replacement has increased to \$5.6 million.

Finally, the cost of deferring preventive and predictive maintenance may increase the Department's overall maintenance costs. For example, deferral of maintenance and the lack of similar funding in the 1970s led to the necessity of a \$2.2 billion facilities and equipment restoration program in the early 1980s.

In discussions with NNSA officials on the apparent shortfall of infrastructure funding, we were advised that an additional \$5 billion investment, over and above the current budget estimate, would be needed to ensure a safe, reliable, and secure stockpile over the next 10 years. Further, we found that the Program Analysis and Evaluation Group at the Department of Defense (DOD) concluded that there were serious maintenance problems at some nuclear weapons production facilities. A joint study by the Department and the DOD group indicated that needed improvements to the production plant infrastructure may cost as much as \$8.2 billion over 18 years. Furthermore, after a review of the Department's FY 2001 Stockpile Stewardship Plan, the Commander-in-Chief of the U.S. Strategic Command indicated to the Department that the Command was, "concerned that the nuclear weapons complex infrastructure receives inadequate attention and is not positioned to support the future DSW [Directed Stockpile Work] needs of the stockpile."<sup>2</sup>

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<sup>2</sup>The Commander-in-Chief's letter is included as Appendix 2.

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It should be noted that the Office of Inspector General takes no position as to the appropriate funding levels for the Stockpile Stewardship Program and how much in additional resources will be necessary to modernize the weapons complex. The thrust of this report is that implementation of condition assessments, development of ten-year plans, and processes to integrate the plans with the new 5-year budget are needed to facilitate the development of an accurate funding estimate for the program. Without such a base, the level of confidence in the Department's ability to certify the nuclear weapons stockpile could decrease.

## RECOMMENDATIONS

To ensure that the nuclear weapons complex infrastructure can meet the current and future goals of the Stockpile Stewardship Plan, we recommend that the Administrator for the National Nuclear Security Administration establish an overall science and production focal point with authority to:

1. Update all budget-planning assumptions related to the Department's PEIS with the Stockpile Stewardship Management Plan.
2. Develop a condition assessment survey methodology and ensure it is conducted at all production plants including the production portions of the national laboratories.
3. Require that all production plants and laboratories with production facilities prepare a Ten-Year Site Plan in accordance with established Departmental policy to ensure that infrastructure needs are identified and are consistent with current and planned directed stockpile workload requirements. Each plan should be evaluated for adequacy and completeness and then individual site resource and facility requirements integrated into an overall production plant Ten-Year Site Plan.
4. Work with applicable contracting officers to (a) establish consistent performance measures for infrastructure maintenance, reporting, and Ten-Year Site Plan development; (b) evaluate the performance of contractors relative to the established performance measures; and (c) determine the appropriate award and incentive fees earned by the applicable contractors.
5. Develop a 5-year budget planning cycle that will integrate the overall Ten-Year Site Plan requirements with production plant

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infrastructure needs and submit a budget request to the Congress that reflects these needs.

6. Develop a contingency plan that prioritizes infrastructure activities so that defensible choices can be made if requested funding is not received.

**MANAGEMENT  
REACTION**

The Administrator, NNSA, concurred with the report conclusions and recommendations. He advised that Phase II of the Facilities and Infrastructure Initiative study now underway would include actions responding to each of the audit recommendations. Management's comments are included in their entirety as Appendix 4.

**AUDITOR  
COMMENTS**

Management comments were responsive to our recommendations.

# Appendix 1

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## SCOPE

The audit was performed from July 1999 to June 2000 at Department Headquarters in Washington, DC and Germantown, Maryland. Site visits were made to the Albuquerque Operations Office and Sandia National Laboratories in Albuquerque, New Mexico; the Amarillo Area Office and the Pantex Plant in Amarillo, Texas; the Los Alamos National Laboratory in Los Alamos, New Mexico; and the Y-12 Plant in Oak Ridge, Tennessee. In addition, the Albuquerque Operations Office provided Ten-Year Site Plans for the Kansas City Plant and the Savannah River Site.

## METHODOLOGY

To accomplish the audit objective we:

- Evaluated the Stockpile Stewardship Plan for Fiscal Years 1999 and 2000 and Defense Programs policy and implementing guidance relating to facilities and infrastructure management.
- Obtained and reviewed applicable Federal Financial Accounting Standards and Departmental reporting requirements for property, plant, and equipment as well as Departmental orders pertaining to life-cycle asset management and maintenance.
- Reviewed and discussed the classified Fiscal Year 1999 Production and Planning Directive and the related classified Program Control Documents for the W87 and W76 systems with Headquarters and Albuquerque Operations Office officials.
- Held discussions regarding the Stockpile Stewardship Plan, the Stockpile Life Extension Program and related requirements, the Stockpile Surveillance Program, the nuclear weapons complex manufacturing infrastructure, Ten-Year Site Plans, and Defense Programs budgets with Headquarters and Albuquerque officials.
- Held a discussion with Department of Defense Program Analysis and Evaluation Group officials regarding their study of the Department's manufacturing infrastructure.

We also obtained and reviewed maintenance programs, performance plans and measures, Ten-Year Site Plans, and held discussions with responsible contractor officials. The Work Authorization Directives for Fiscal Years 1998 and 1999 were reviewed to identify contractor workload requirements. In addition, we reviewed contractor data on maintenance and deferred maintenance and compared these amounts with those entered in the Facilities Information Management System.

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We conducted the audit according to Generally Accepted Government Auditing Standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed internal controls and performance with regard to meeting production and planning schedules, implementation of life-cycle asset management programs, and the preparation of Ten-Year Site Plans. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We did not rely on computer-processed data to accomplish the audit objective. Therefore, we did not assess the data reliability.

During the course of the audit, the Department's budgeting approach was revised to present budget data under three categories: Directed Stockpile Work, Campaigns, and Readiness in Technical Base and Facilities. We did not review this revised budgeting structure in the current audit.

Management waived an exit conference.



DEPARTMENT OF DEFENSE  
UNITED STATES STRATEGIC COMMAND

2000-006109 Mar 14 A 11:12

Reply To:  
USSTRATCOM/J000  
901 SAC BLVD STE 2A1  
OFFUTT AFB NE 68113-6000

10 March 2000  
CM040-00

MEMORANDUM FOR THE ACTING ASSISTANT SECRETARY FOR DEFENSE PROGRAMS,  
UNITED STATES DEPARTMENT OF ENERGY

Subject: FY 2001 Stockpile Stewardship Plan

1. Thank you for the opportunity to review the FY 2001 Stockpile Stewardship Plan (SSP) and participate in the 9 Feb 00 Executive Review Group. The reorganization of the Stockpile Stewardship Program into the new Directed Stockpile Work (DSW)/Campaigns/Readiness in Technical Base and Facilities (RTBF) structure is an improvement that should enhance the integration of these three major areas. In the interest of addressing the concerns of USSTRATCOM and the nuclear community, please consider the following items for inclusion in next year's Plan.
  - a. We believe that Defense Programs would benefit from implementing a five-year budget planning cycle to develop an accountable program plan that would not have to be "rebaselined" every year. We recognize that an essential prerequisite is a robust requirements development process, and USSTRATCOM is ready to assist in defining future DSW requirements.
  - b. We are concerned that the nuclear weapons complex infrastructure receives inadequate attention and is not positioned to support the future DSW needs of the stockpile. The RTBF section of the SSP should include a comprehensive, integrated comparison between projected DSW requirements and the infrastructure's capability to support it. The plan for correcting any identified shortfalls and modernizing the complex should also be presented within RTBF.
  - c. The Stockpile Stewardship Plan should include the program for recruiting and retention of nuclear expertise and critical skilled labor, since it is a vital element in the Plan's success. As a starting point, we look forward to the joint DOE/DoD report to Congress on measures taken to address the personnel issues identified in the Chiles Commission Report and underscored by the 30-Day Review.
2. In summary, the FY 2001 Stockpile Stewardship Plan provides a good description of DOE's plan to ensure confidence in the safety and reliability of the nuclear weapons stockpile. The SSP is a continuously evolving product and is improving each year.

A handwritten signature in black ink, appearing to read "Richard W. Mies".

RICHARD W. MIES  
Admiral, U.S. Navy  
Commander in Chief

## **Appendix 3**

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### **PRIOR OFFICE OF INSPECTOR GENERAL REPORTS RELATING TO WEAPONS PRODUCTION INFRASTRUCTURE**

ER-B-99-07 – May 1999 – "Audit Report on Maintenance Activities at the Y-12 Plant". Lockheed Martin did not adequately use performance measures to identify and correct inefficiencies in its maintenance program. This condition occurred because Lockheed Martin did not fully implement Departmental guidelines. The report concluded that with increased labor efficiency, the additional maintenance activity could be used to reduce the \$11.2 million backlog for plant maintenance.

DOE/IG-0468 – April 2000 – "Report on Facilities Information Management System". The Facilities Information Management System was inaccurate and incomplete because many field sites maintained their own site-specific real property systems and did not use the FIMS to manage property. In addition, a Headquarters organization with oversight responsibility for FIMS did not have the authority to require field sites to maintain and use the database. As a result, the ability of Departmental management, the Congress, and other Federal agencies to use FIMS data to make informed decisions pertaining to real property holdings was questionable.

## Appendix 4

DOE F 1325.8  
(06-93)

United States Government

Department of Energy

# memorandum

DATE: September 18, 2000

REPLY TO  
ATTN OF: DP-24:Ascanio:3-3757

SUBJECT: DRAFT REPORT ON "MANAGEMENT OF THE NUCLEAR WEAPONS PRODUCTION INFRASTRUCTURE" (A99CG028)

TO:

Deputy Inspector General for Audit Services, Office of Inspector General  
Thru: John A. Gordon, Under Secretary for Nuclear Security and Administrator, NNSA



As you requested in your memorandum dated August 2, 2000, a review of the DRAFT report "Management of the Nuclear Weapons Production Infrastructure" has been completed by my staff. Also, the Office of Defense Programs (DP) staff has met with the Office of Inspector General (IG) staff to resolve any detailed comments.

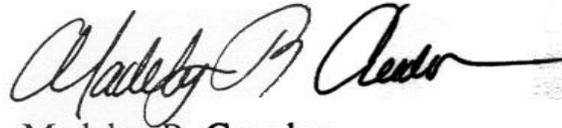
Generally, the report's conclusions are accurate and balanced, and we agree with its recommendations. Thus far, the production complex has been able to satisfy production requirements by focusing our limited resources on the infrastructure needed for current production. During the April 4, 2000, Requirements Working Group of the Nuclear Weapons Council, both the Navy and Air Force stated that all of their requirements are being met. However, as noted in the IG DRAFT report, we face a number of challenges if we are to meet future requirements. Addressing the facility and infrastructure issues needed to assure that the production complex continues to satisfy requirements is one of my highest priorities.

The condition of our facilities and infrastructure was cited in the *Stockpile Stewardship Program 30 Day Review*, which was directed by the Secretary of Energy and led by Under Secretary of Energy Moniz, in the fall of 1999. In response, DP launched its Facilities and Infrastructure (F&I) Initiative. During Phase I of this initiative, DP developed a baseline status of the condition of the infrastructure and a preliminary prioritized list of unfunded maintenance and repair activities for fiscal year 2002. Phase I was completed in July of this year, and the final report is due to be published in September 2000.

Currently, the focal point, within the National Nuclear Security and Administration, for assuring that the infrastructure will be capable of supporting all science and production is the Deputy Administrator for Defense Programs (DP-1). A senior military officer, who reports directly to the Principal Assistant Deputy Administrator for Military Application (DP-2) has been assigned to lead the F&I Initiative. This leader is supported by a team with representatives from across the nuclear weapons complex. During the next Phase of the DP F&I Initiative, a planning process and a program plan will be established for improving the infrastructure over the next 10 years. Phase II of the F&I Initiative will include actions responding to each of the recommendations identified in the DRAFT IG report. The team will also make a recommendation regarding the best organizational structure for managing the infrastructure.



If you have any questions on this matter, please contact Mr. Rodney Lehman of my staff at (301)903-6104.

A handwritten signature in black ink, appearing to read "Madelyn R. Creedon", with a long horizontal flourish extending to the right.

**Madelyn R. Creedon**  
**Deputy Administrator**  
**for Defense Programs**

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