



U.S. Department of Energy
Office of Inspector General
Office of Inspections and Special Inquiries

Inspection Report

Review of Security at the Strategic Petroleum Reserve



Department of Energy

Washington, DC 20585

June 17, 2005

MEMORANDUM FOR THE SECRETARY

FROM: *Greg Friedman*
Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Inspection Report on "Review of Security at the Strategic Petroleum Reserve"

BACKGROUND

The Office of Inspector General initiated an inspection of security at the Department of Energy's Strategic Petroleum Reserve. The Reserve, which is the United States' emergency stockpile of crude oil, contains approximately 695 million barrels of oil stored in underground salt caverns in Louisiana and Texas.

The Department designated that the Reserve has a "National Security Critical Essential Function" in response to Homeland Security Presidential Directive 7, "Critical Infrastructure Identification, Prioritization, and Protection," dated March 30, 2005. The Department concluded that the Reserve is part of the Department's critical infrastructure and serves as the Nation's first line of defense against an interruption in petroleum supplies and as a national defense fuel reserve. Therefore, any disruption in the ability of the Reserve to provide emergency crude oil may have an adverse impact on the Nation's economy and security.

Security for the Strategic Petroleum Reserve sites is provided by Pinkerton Government Services, Inc., a subcontractor to DynMcDermott Petroleum Operations Company, which is the Department's managing contractor for the Reserve. Protection of the infrastructure required to extract the oil and supply it to commercial pipelines is dependent upon the security forces at each of the sites. The Department is not responsible for security of the commercial pipelines beyond the site boundaries.

The objective of this inspection was to evaluate aspects of physical security at the Reserve.

RESULTS OF INSPECTION

We concluded that additional measures could be implemented to improve physical security of Strategic Petroleum Reserve sites. Specifically, we found that:

- The level of protection against the "insider threat" at the sites may not be commensurate with the designation of the Reserve as a part of the Department's critical infrastructure.



- Similarly, the Strategic Petroleum Reserve's deadly force policy may not be consistent with the Reserve's critical infrastructure designation.
- Opportunities exist for some protective force performance tests to be more realistic; often the threat level (Security Condition) is elevated for certain tests, which provides for additional protective force personnel to defend the site during the tests. Performance tests are used to evaluate the effectiveness of protective forces in response to various threats.

The report included several recommendations designed to enhance physical security at the Reserve.

MANAGEMENT REACTION

Management concurred with our findings and recommendations and identified corrective actions that are planned or have been initiated. Management's comments are provided in their entirety in Appendix B to this report.

We found management's comments to be responsive to our recommendations.

Attachment

cc: Deputy Secretary
Chief of Staff
Acting Assistant Secretary for Fossil Energy
Director, Office of Security and Safety Performance Assurance
Project Manager, Strategic Petroleum Reserve
Director, Office of Independent Oversight and Performance Assurance

REVIEW OF SECURITY AT THE STRATEGIC PETROLEUM RESERVE

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Overview

INTRODUCTION AND OBJECTIVE

The Office of Inspector General initiated an inspection of security at the Department of Energy's (DOE) Strategic Petroleum Reserve (SPR). The SPR is the United States' emergency stockpile of crude oil and was established in response to the 1973-1974 oil embargo. The reserve currently stores approximately 695 million barrels of oil in underground salt caverns located in Louisiana and Texas. The SPR represents a national investment of over \$40 billion including facilities and the value of the crude oil at today's prices.

DOE designated that the SPR has a "National Security Critical Essential Function" in response to Homeland Security Presidential Directive 7 (HSPD 7), "Critical Infrastructure Identification, Prioritization, and Protection," March 30, 2005. Specifically, the Department concluded that SPR was a part of the Department's critical infrastructure and is a key resource for national energy and economic security. SPR serves "as the Nation's first line of defense against an interruption in petroleum supplies and as a national defense fuel reserve." Therefore, any disruption in the ability of SPR to provide emergency crude oil may have an adverse impact on the Nation's economy and security.

Each SPR site has a security force managed by Pinkerton Government Services, Inc. (Pinkerton), a subcontractor to DOE's prime SPR managing contractor, DynMcDermott Petroleum Operations Company (DynMcDermott). SPR crude oil is stored in deep underground salt domes which would, according to SPR officials, minimize access to the oil by potential adversaries. However, protection of the infrastructure required to extract the oil and supply it to commercial pipelines is dependent upon the security apparatus at each of the SPR sites, primarily, armed protective force personnel. DOE is not responsible for security of the commercial pipelines beyond SPR site boundaries.

The objective of this inspection was to evaluate aspects of physical security at the SPR.

OBSERVATIONS AND CONCLUSIONS

We concluded that additional measures could be implemented to improve physical security of the SPR sites. Specifically, we found that:

- The level of protection against the “insider threat” at the sites may not be commensurate with the designation of the Reserve as a part of the Department’s critical infrastructure.
- Similarly, the Strategic Petroleum Reserve’s deadly force policy may not be consistent with the Reserve’s critical infrastructure designation.
- Opportunities exist for some protective force performance tests to be more realistic; often the threat level (Security Condition) is elevated for certain tests, which provides for additional protective force personnel to defend the site during the tests. Performance tests are used to evaluate the effectiveness of protective forces in response to various threats.

Details of Findings

INSIDER THREAT

The level of protection against the “insider threat” at SPR sites may not be commensurate with SPR’s designation as part of DOE’s critical infrastructure.

An “insider” is described in the DOE Design Basis Threat as anyone with authorized, unescorted access to DOE facilities and programs. The insider threat could entail the use of violence or physical force; active support to outsiders by direct participation in a terrorist or subversive act; and/or passive support to outsiders by simply supplying infrastructure or other important information. These insiders, particularly those with access to critical areas, could disrupt SPR facilities based on their knowledge of SPR security systems, technical areas, or data management.

During our inspection, we determined that a number of permanent, full-time SPR employees did not possess security clearances. We found that 87 percent of DynMcDermott and its support services subcontractor employees at various SPR field sites, some with unescorted access to sensitive areas, had never been processed for any level of security clearance. We were told that this was because they do not access classified information. As a result, these employees have never undergone a Federal background investigation. We found that DynMcDermott does complete pre-employment investigations on all of its employees. However, the DynMcDermott pre-employment investigation did not include Federal law enforcement or intelligence record checks nor did DynMcDermott conduct any rechecks on employees once hired. Such checks and rechecks are required for most Department of Energy contract employees.

Homeland Security Presidential Directive 12 (HSPD 12), “Policy for a Common Identification Standard for Federal Employees and Contractors,” was issued in August 2004. HSPD 12 requires Executive departments to establish secure and reliable forms of identification for employees and contractors. We were told by a Department security policy official that DOE is in the process of devising a plan to implement HSPD 12 through issuing new security access badges to employees, including at the SPR. According to the security policy official, DOE’s HSPD 12 plan will, when implemented, require a minimum level of Federal background investigation in connection with the issuance of access badges. However, the issuance of new access badges is not set to begin until late 2005. Therefore, an important component of DOE fulfilling its responsibilities under HSPD 12 will be ensuring that, as part of DOE’s critical infrastructure, the SPR is protected

against insiders through a vetting process prior to allowing unescorted access by employees.

DEADLY FORCE POLICY

The Department's deadly force policy refers to the ability of site protective force personnel to legally use deadly force to fulfill their protective force responsibilities. We concluded that the deadly force policy implemented at SPR may not be consistent with the Reserve's designation as part of DOE's critical infrastructure.

The Department's response to HSPD 7 identified SPR as a critical infrastructure/key resource that is inherently attractive to terrorists. However, current Federal regulations may not provide sufficient authority to the SPR protective force to protect the Reserve given the critical nature of its mission.

The guidelines followed by the SPR protective force governing use of deadly force are specified in 10 Code of Federal Regulations (10 CFR) Part 1049 – Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve. Part 1049 provides for the use of deadly force to protect personnel. Guidelines followed by Security Police Officers (SPOs) for the protection of nuclear facilities, which are also designated by DOE as critical infrastructure, are specified in 10 CFR Part 1047 - Limited Arrest Authority and Use of Force by Protective Force Officers, pursuant to the Atomic Energy Act, § 161(k). Part 1047 provides for use of deadly force to protect personnel and property (nuclear weapons, nuclear explosive devices, and/or special nuclear material).

DOE had designated its nuclear facilities and the SPR as part of its "critical infrastructure." Yet, we found that the authority to use deadly force at these facilities was inconsistent. Specifically, the SPR protective force had the authority to use deadly force only for protection of personnel. They were not authorized to use deadly force to protect the SPR infrastructure, the oil caverns, and the facilities which allow removal of the oil from the caverns to commercial pipelines for distribution. The information available to us indicated that the decision as to whether to use deadly force in the event of a terrorist attack on the SPR is currently left to individual SPR protective force officers. Under the current formulation, the protective force officer must decide at what point an attempt to destroy or damage the SPR infrastructure constitutes a danger to personnel. Then, and only then, can deadly force be used.

In the post 9-11 period, we concluded that this policy should be re-evaluated, especially given SPR's designation as part of the Department's critical infrastructure.

PERFORMANCE TESTS

We found that opportunities exist for some of the protective force performance tests to be more realistic. Performance testing requirements are outlined in DOE Order 473.2, "Protective Force Program." Performance testing consists of various types of tests administered to protective force personnel, such as force-on-force exercises, to realistically evaluate the readiness of protective forces to defend DOE and its critical infrastructure. Performance tests verify the effectiveness of protective force programs, identify and provide training for personnel, identify areas requiring system improvements, validate implemented improvements, and motivate protective force personnel.

Additionally, DOE Manual 473.2-2, "Protective Force Program Manual," Chapter IV, "Training and Qualification," states that "The formal training and qualification program must . . . include valid performance-based testing to determine and certify job readiness (i.e., qualification)." Further, Chapter VII of the Manual entitled "Performance Testing," indicates that exercises are used to test the overall effectiveness of all elements in response to the DOE Design Basis Threat and site-specific threats.

We interviewed 53 SPOs at various locations throughout SPR who expressed a number of concerns regarding security performance tests at the Reserve. The most important concern related to the increase in security level during the tests which had the effect of providing additional protective force personnel. Other expressed concerns related to scenarios being unrealistic and repeated annually without changes and incorrect use of simulated helicopters and explosives. We were told that controllers/observers wear bright orange vests and that SPOs can easily observe those vests and deduce information about the pending attack location. Also, we were told protective forces and adversary forces stand next to each other before mock battles and hear the instructions given to each other.

As part of the inspection we observed several force-on-force performance tests at one SPR site. Part of the testing included raising the threat level security condition thereby increasing the number of the protective force on duty to defend the site during the tests. This observation confirmed the concern that had been expressed to us by protective force personnel.

We discussed this matter with SPR officials who were aware of the practice. They acknowledged that most of the performance testing of the specific type we observed is done at the elevated security condition. They said that, although they do test at lower security condition levels, raising the security condition allows them to test the “worst case” scenario. They contended, as well, that the testing is more cost effective since it allows more SPOs to be included in the exercise at one time.

While we recognized the points made in discussions with SPR officials, we remained skeptical as to whether the approach being taken ensures that the tests are as realistic as possible. We noted that there had not been an independent security review at the SPR in several years. We concluded that the question of performance test methodology should be subjected to such a review. This report includes a recommendation to this effect.

RECOMMENDATIONS

We recommend that the Assistant Secretary for Fossil Energy, in coordination with the Director, Office of Security and Safety Performance Assurance:

1. Determine whether the DOE implementation of HSPD 12 will ensure a minimum level of Federal background investigation for all uncleared personnel having unescorted access to sensitive areas within the SPR. If so, ensure that HSPD 12 is implemented at the SPR in a timely manner. If not, then determine if a minimum Federal background investigation should be required immediately for all uncleared personnel having unescorted access to sensitive areas within the SPR.
2. Review the current authorities provided to SPR protective force officers and determine whether current authorities provide for a sufficient level of protection for the SPR, given its status as a critical infrastructure. If not, revise the authorities, as appropriate.

We recommend that the Project Manager, Strategic Petroleum Reserve:

3. Review the realism of SPR performance tests and ensure the tests adhere to DOE regulations for realistic evaluation of protective forces.

We recommend that the Director, Office of Independent Oversight and Performance Assurance (OA), in view of the designation of SPR as a critical infrastructure:

4. Evaluate whether OA should review protective force performance testing programs at SPR; and
5. Consider performing a comprehensive review of SPR security.

**MANAGEMENT
COMMENTS**

Management concurred with all the recommendations. We have included management's comments in their entirety as Appendix B.

**INSPECTOR
COMMENTS**

Management's comments were responsive to the recommendations.

Appendix A

SCOPE AND METHODOLOGY

The Office of Inspector General initiated an inspection of security for the protection of Department of Energy resources at the Strategic Petroleum Reserve. We identified and reviewed applicable Federal and DOE regulations and conducted a limited physical inspection of site locations. We interviewed DOE and contractor officials and reviewed key documents applicable to the inspection.

Also, pursuant to the “Government Performance and Results Act of 1993,” we reviewed SPR’s performance measurement processes as they relate to security.

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


Appendix B



Department of Energy
Washington, DC 20585

June 2, 2005

MEMORANDUM FOR: ALFRED K. WALTER
ASSISTANT INSPECTOR GENERAL
FOR INSPECTIONS AND SPECIAL INQUIRIES

FROM: MARK R. MADDOX 
PRINCIPAL DEPUTY ASSISTANT SECRETARY
OFFICE OF FOSSIL ENERGY

SUBJECT: COMMENTS ON IG DRAFT INSPECTION REPORT ON
THE REVIEW OF SECURITY AT THE STRATEGIC
PETROLEUM RESERVE

The Office of Fossil Energy (FE) has reviewed the subject report and provides the following management comments to the first three recommendations. Comments for Recommendations 1 and 2 have been coordinated with the Office of Security and Safety Performance Assurance while comments for Recommendation 3 have been provided by the Project Manager, Strategic Petroleum Reserve (SPR). It is our understanding that comments for Recommendations 4 and 5 will be provided by the Office of Independent Oversight and Performance Assurance (OA) directly to your office.

Inspector General Recommendation 1:

Determine whether the DOE implementation of HSPD 12 will ensure a minimum level of Federal background investigation for all uncleared personnel having unescorted access to sensitive areas within the SPR. If so, ensure that HSPD 12 is implemented at the SPR in a timely manner. If not, then determine if a minimum Federal background investigation should be required immediately for all uncleared personnel having unescorted access to sensitive areas within the SPR.

Management Comments:

We concur. The SPR Project Management Office (PMO) will ensure that Homeland Security Presidential Directive 12 (HSPD 12) is properly implemented and obtain appropriate background checks on SPRPMO Federal, contractor, and subcontractor personnel, as required by DOE Directives and HSPD 12. Additionally, SPRPMO will review whether existing engineered security controls are adequate to mitigate insider threats.

We are establishing a September 30, 2005, milestone for completion of this review.



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Inspector General Recommendation 2:

Review the current authorities provided to the SPR protective force officers and determine whether current authorities provide for a sufficient level of protection for the SPR, given its status as a critical infrastructure. If not, revise authorities, as appropriate.

Management Comments:

We concur. SPRPMO has reviewed the current authorities and determined that SPRPMO use of force policies are adequate to meet the protection strategies employed across the SPR project. The SPRPMO is satisfied that 10 CFR Part 1049 is sufficient for protection of the SPR personnel and assets. SPRPMO will review protective force training and post orders on the use of deadly force and will ensure that protective force members clearly understand their authorities through performance testing on a periodic basis.

We are establishing a September 30, 2005, milestone for completion of this review.

Inspector General Recommendation 3:

Review the realism of SPR performance tests and ensure the tests adhere to DOE regulations for realistic evaluation of protective forces.

Management Comments:

We concur. The SPR Systems Performance Test Program has been implemented to realistically test and evaluate local security systems. Limited Scope Performance Tests (LSPT) are conducted at three levels. The scope of the performance tests range from the evaluation of an individual Security Police Officer (LSPT I), to multiple officers in a team test (LSPT II) through the testing of multiple teams (LSPT III). The LSPT III testing for the SPR is accomplished in conjunction with the annual Field Training Exercise (FTX) at each of the sites. These tests are intended to test the Protective Force and the Local Law Enforcement Agencies that support the SPR in a full security systems evaluation. The series of performance tests that were developed in accordance with DOE Directives were designed to balance realism, safety, and operational constraints and yet provide meaningful objective assessments.

To our knowledge, IG personnel only witnessed an FTX that was evaluating Protective Force performance in a LSPT III. That test was performed in conjunction with the most recent site vulnerability assessment derived from the DOE Design Basis Threat and the Adversary Capabilities List.

However, we are appreciative of the need for realism and realistic performance testing in the evaluation of the protective force. Accordingly, we will conduct a review to address realism of the performance tests and their effectiveness in the evaluation of the protective force. We are establishing a September 30, 2005, milestone for completion of this review.

If your office should have any questions or need clarification of the provided comments, please contact Rick Hoffman at (202) 586-4401.

cc:

M. Lewis, ME-100

A. Guevara, OA-10

K. Clark, FE-3

J. Shages, FE-40

W. Gibson, FE-44

M. Matarrese, FE-7



Department of Energy
Washington, DC 20585

May 27, 2005

MEMORANDUM FOR ALFRED K. WALTER
ASSISTANT INSPECTOR GENERAL
FOR INSPECTIONS AND SPECIAL INQUIRIES

FROM: GLENN S. PODONSKY
DIRECTOR
OFFICE OF SECURITY AND SAFETY
PERFORMANCE ASSURANCE

SUBJECT: Response to Draft Inspection Report on Security at the Strategic
Petroleum Reserve, SO4IS024

The Office of Security and Safety Performance Assurance (SSA) has reviewed your May 9, 2005, draft report, "Review of Security at the Strategic Petroleum Reserve (SPR)." We concur with recommendations 4 and 5, in the report, which state that SSA review protective force performance testing programs at SPR and consider performing a comprehensive review of SPR security. Since we are currently scheduled to inspect, on a priority basis, a number of sites that protect Category 1 special nuclear materials, SSA will look for the appropriate window for this review. We are also providing input to the Office of Fossil Energy on recommendations 1 and 2 of your audit report.

If you have any questions, please contact me at (301) 903-3777.

cc:

L. Gasperow, SP-1.2
M. Kilpatrick, OA-1
A. Guevara, OA-10
M. Combs, SO-1
J. Hawthorne, SO-10
L. Wilcher, SO-20
M. Matarrese, FE-7
J. Shages, FE-40
W. Gibson, SPR



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