



U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Special Report

Follow-Up Review of The
Department of Energy's
Response to Hurricanes Katrina
and Rita

DOE/IG-0733

July 2006



Department of Energy

Washington, DC 20585

July 12, 2006

MEMORANDUM FOR THE SECRETARY

FROM:

Greg Friedman
Gregory H. Friedman
Inspector General

SUBJECT:

INFORMATION: Special Report on "Follow-Up Review of the Department of Energy's Response to Hurricanes Katrina and Rita"

BACKGROUND

In October 2005, the Office of Inspector General (OIG) conducted a review to identify the actions taken by the Department of Energy (Department) in response to Hurricanes Katrina and Rita and to assess whether these actions fulfilled the Department's Emergency Support Function-12 (ESF-12) obligations for energy restoration, as outlined in the Department of Homeland Security's National Response Plan. The resulting Special Report on *The Department of Energy's Response to Hurricanes Katrina and Rita* (November 2005, DOE/IG-0707), disclosed that the Department effectively met its obligations by taking appropriate actions to assist in the restoration of energy systems after Hurricanes Katrina and Rita.

While the Department's response was effective, we identified certain actions which could enhance future ESF-12 missions. These included improving the Department's communication channels; strengthening the Department's ability to identify emergency response assets in advance of events such as natural disasters; and, augmenting the staffing and provisioning of the emergency response teams, which are the Department's most direct representatives in crisis situations. The Director, Office of Electricity Delivery and Energy Reliability, concurred with the recommendations in the report and indicated that he had implemented corrective action plans.

As we enter the 2006 hurricane season, we conducted this follow-up review to determine whether the Department had effectively implemented the recommendations contained in our prior report.

CONCLUSIONS AND OBSERVATIONS

Since November 2005, the Department has made significant progress toward implementing the OIG's recommendations to enhance its ESF-12 mission capabilities. Specifically, the Department clarified communications processes during ESF-12 deployments, addressed responder equipment needs, and augmented staffing levels to meet ESF-12 mission requirements.



While the Department took effective action to address the prior report's recommendations, we concluded that there are additional opportunities to improve the Department's efforts to identify emergency response assets in advance of events such as natural disasters.

Specifically, this could be achieved by:

- Expanding the inventory narrative to include sufficient detail about the quantities and capabilities of available equipment to place crisis responders in a better position to determine whether available equipment would meet mission needs; and,
- Ensuring that the asset bases of all Departmental entities, including the National Nuclear Security Administration, the Bonneville Power Administration, and the Strategic Petroleum Reserve (some of which were used to respond to Hurricanes Katrina and Rita) are included in the Department's inventory.

Departmental action to improve its inventory of emergency response assets will further strengthen the progress it has already made in implementing our earlier recommendations.

This report is part of a broader effort by my office to identify ways the Department can improve its emergency response capabilities. Our ongoing reviews in this area include an assessment of the Department's use of the Strategic Petroleum Reserve in response to Hurricanes Katrina and Rita.

MANAGEMENT REACTION

The Director, Office of Electricity Delivery and Energy Reliability, concurred with the recommendation in the report. Management's comments are included in Appendix 2.

Attachment

cc: Deputy Secretary
Under Secretary for Energy
Under Secretary for Science
Administrator, National Nuclear Security Administration
Chief of Staff
Director, Office of Electricity Delivery and Energy Reliability

SPECIAL REPORT OF THE FOLLOW-UP REVIEW OF THE DEPARTMENT OF ENERGY'S RESPONSE TO HURRICANES KATRINA AND RITA

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IMPLEMENTATION OF RECOMMENDATIONS

Actions Taken

From November 2005 to May 2006, the Department of Energy (Department) made significant progress toward implementing our recommendations, thereby improving its ability to successfully perform future Emergency Support Function-12 (ESF-12) missions. In the Special Report on *The Department of Energy's Response to Hurricanes Katrina and Rita* (November 2005, DOE/IG-0707), we recommended that the Director, Office of Electricity Delivery and Energy Reliability:

- Clarify with external sources the appropriate ESF-12 point of contact to whom they should direct information requests, and proactively disseminate such information to Department of Energy personnel and appropriate external sources;
- Ensure that deployed teams are adequately provisioned with a standardized suite of equipment;
- Determine whether additional personnel are necessary to meet the Department's National Response Plan obligations; and,
- Develop an inventory of available Department resources for emergency energy restoration.

Communications Management

The Department took several positive actions to improve communications during ESF-12 deployments. In our earlier report, we noted that the Department received duplicative requests for information when external entities requested the same information from different ESF-12 personnel. To remedy this situation, the Office of Electricity Delivery and Energy Reliability enhanced its organizational relationships by appointing ESF-12 responders as primary and alternate representatives in each of the Federal Emergency Management Agency regions, designating a single point of contact with the Department of Homeland Security, and establishing a point of contact with the National Nuclear Security Administration. The Office of Electricity Delivery and Energy Reliability is also redesigning its hurricane situation report format to improve readability and to reduce report preparation time. Finally, the Office of Electricity Delivery and Energy Reliability plans to assume responsibility for ESF-12 community participation in the Homeland Security Information Network, which will allow responders to communicate directly with one another.

Responder Equipment

The Department improved response team provisioning through equipment upgrades and improvements to response team information resources. As discussed in our earlier report, Department managers and responders identified several equipment additions that would enhance the "Go Kits" provided to the responders during deployment. For example, several responders indicated their hurricane relief efforts would have been more effective if they had been equipped with mobile Global Positioning Systems and properly-configured computer equipment.

In January 2006, the Office of Electricity Delivery and Energy Reliability coordinated a collaborative effort with the Department's Office of the Chief Information Officer to embed a communications specialist in an upcoming ESF-12 deployment. This specialist will evaluate ESF-12 technology needs and make recommendations for additional equipment. The Office of Electricity Delivery and Energy Reliability also requested additional equipment to address responder needs during a deployment, including: Global Positioning Systems, external storage devices, and remote access equipment. Finally, the Office of Electricity Delivery and Energy Reliability is working with the National Energy Technology Laboratory to develop a database of key energy infrastructure facilities and assets, which can be issued to responders to help them understand more about the facilities and their special needs.

Emergency Support Staffing

The Department took action to provide line personnel necessary to meet its National Response Plan obligations. During Hurricanes Katrina and Rita, the Office of Electricity Delivery and Energy Reliability had 8 personnel dedicated as initial emergency responders; however, the severity and magnitude of the hurricanes required the deployment of 35 personnel to 9 different emergency centers. Since our earlier report, the Office of Electricity Delivery and Energy Reliability hired an additional responder and implemented a proactive volunteer responder program to assist in ongoing efforts. On May 1, 2006, the Department's Chief of Staff issued a "Request for Volunteers to Serve as Energy Restoration Team Members during this Year's Hurricane Season." The intent of the solicitation was to augment the Department's cadre of trained responders with volunteers – especially those with backgrounds in electrical engineering, petroleum engineering, and emergency management – who would serve as Energy Restoration

Opportunities for Improvement

Team members. According to the Office of Electricity Delivery and Energy Reliability, this initiative resulted in the training of an additional 30 employees for emergency response.

While the Department took action to identify energy restoration assets, we noted areas where additional improvements could be made. In our earlier report we noted that, although Departmental assets were used to respond to energy restoration requests, the Department did not have a mechanism readily available to identify equipment within its extensive asset base that could be made available to meet emergency needs.

In response, the Department conducted a preliminary survey of emergency restoration equipment at selected sites. In March 2006, the Department's Office of Management supplied the Office of Electricity Delivery and Energy Reliability with a listing of the amount of emergency equipment available at six Department sites. While the inventory was a good first step, we noted two concerns:

- The lack of sufficient detail about available equipment limited its usefulness; and,
- All Department entities were not included in the inventory listing.

Instead of listing individual assets for use, the Department reported summary quantities for different item classifications. For example, the Office of Management reported that the Department owned over 170 generators, which could be transferred in an emergency situation. However, the absence of detail for each generator limited the usefulness of the listing to the responder on the scene. Although the generators were later subdivided by size, the responders told us they would still require more detailed information about the generators to make an informed decision about utilization. Also, the inventory was incomplete because the listing did not include all Department entities such as the National Nuclear Security Administration, Bonneville Power Administration, and the Strategic Petroleum Reserve. These entities have substantial assets, some of which were used in response to Hurricanes Katrina and Rita. Without a detailed and complete listing of energy restoration assets, future ESF-12 responders may not be able to readily access Department resources during an emergency.

RECOMMENDATION

We recommend that the Director, Office of Electricity Delivery and Energy Reliability, coordinate with other Department organizations and the National Nuclear Security Administration to ensure that emergency response assets are fully identified and described for timely use during ESF-12 events.

**MANAGEMENT
REACTION**

The Director, Office of Electricity and Energy Reliability, concurred with the recommendation in the report and provided an appropriate action plan to address the report's recommendation. Specifically, he agreed to undertake a pilot project to compile an inventory of generators, the most sought-after asset during energy emergencies, and coordinate with the National Nuclear Security Administration, Bonneville Power Administration, and other appropriate entities on how they might be able to support this effort. Management's comments are included in Appendix 2.

Appendix 1

OBJECTIVE

The objective of this review was to determine whether the Department of Energy (Department) is effectively implementing the recommendations from the November 2005 Special Report on *The Department of Energy's Response to Hurricanes Katrina and Rita*.

SCOPE

The review was performed from April to June 2006, at the Office of Electricity Delivery and Energy Reliability and the Office of Management in Washington, D.C. In particular, we reviewed actions taken by the Department in response to our prior recommendations.

METHODOLOGY

To assess the Department's response to our recommendations, we:

- Interviewed Department officials from the Office of Electricity Delivery and Energy Reliability and the Office of Management;
- Obtained the Departmental Audit Report Tracking System status report for recommendations;
- Reviewed the Department's plans for closing the recommendations;
- Evaluated the Department's progress toward completion;
- Reviewed the Office of Electricity Delivery and Energy Reliability organizational structure;
- Interviewed Departmental emergency response team personnel;
- Reviewed the Department's listing of potential emergency response team members and deployment areas; and,
- Examined Lessons Learned documents.

Management waived the exit conference.



Department of Energy
Washington, DC 20585

MEMORANDUM FOR: GEORGE W. COLLARD
ASSISTANT INSPECTOR GENERAL
FOR PERFORMANCE AUDITS
OFFICE OF INSPECTOR GENERAL

FROM: KEVIN M. KOLEVAR *W*
DIRECTOR, OFFICE OF ELECTRICITY DELIVERY
AND ENERGY RELIABILITY

SUBJECT: Response to IG Draft Special Report

We have reviewed your draft report entitled "Follow-Up Review of the Department of Energy's Response to Hurricanes Katrina and Rita" and agree with its conclusions and observations.

As discussed with your staff, the compilation of an inventory of physical assets, for possible use by non-Departmental elements during declared emergencies, is as logistically challenging as it is potentially useful. Rather than attempt to compile an exhaustive asset inventory at this time, therefore, my office -- in cooperation with other offices within the Department -- will undertake a pilot project in this area. Components of this pilot include:

- The pilot will limit initial efforts to generators as our experience with energy emergencies indicates that generators are invariably the most sought-after asset.
- OE will coordinate with Gulf Region representatives of the U. S. Corps of Engineers (the entity which generally seeks generators on behalf of FEMA during large-scale emergencies) to identify the model numbers and other specifications of the generators that are usually needed.
- OE will work with the Department's Office of Management to identify several sites to participate in the pilot; ME will subsequently be asked to identify any target generators available for use during a declared emergency.
- Draft procedures will be prepared and distributed to personnel responding to energy emergencies during the 2006 hurricane season.
- At the conclusion of the 2006 hurricane season, we will review how the process worked and determine next steps, e.g., whether and/or how to expand or modify the process.
- We will coordinate with representatives of the National Nuclear Security Administration, Bonneville Power Administration, and any other appropriate entities to learn how they might be able to support this effort.



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