OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Evaluation Report

EPA Should Continue to Improve Its National Emergency Response Planning

Report No. 08-P-0055

January 9, 2008

Report Contributors: Carolyn Copper
Steve Hanna
Denise Rice
Anne Emory

Abbreviations

DHS	Department of Homeland Security
EPA	U.S. Environmental Protection Agency
INS	Incident of National Significance
LEPC	Local Emergency Planning Committee
NAR	National Approach to Response
OEM	Office of Emergency Management
OIG	Office of Inspector General

Cover photo: Setting up for air sampling at Capitol Hill following the 2001 anthrax attacks in Washington, DC (EPA photo).

U.S. Environmental Protection Agency
Office of Inspector General

08-P-0055
January 9, 2008

At a Glance

Catalyst for Improving the Environment

Why We Did This Review

We evaluated the U.S. Environmental Protection Agency's (EPA's) Emergency Response Business Plan (the Plan) to determine: (1) how the Agency estimated resource needs for national emergencies; (2) how the resource estimates considered the use of State and local government agency resources in national emergencies; and (3) how EPA used existing data on chlorine volumes to guide plans for responding to a chemical attack.

Background

EPA developed the Plan in 2006 as the framework for emergency response to national-level incidents while maintaining an effective day-to-day emergency response and removal program. The Plan identifies EPA's resource needs to respond to three distinct national emergency situations (scenarios). These scenarios involve various combinations of radiological, biological, and chemical attacks.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2008/20080109-08-P-0055.pdf

EPA Should Continue to Improve Its National Emergency Response Planning

What We Found

We found that EPA's Emergency Response Business Plan did not disclose the basis for EPA's resource estimates. Additionally, EPA management stated they did not consider State and local resources in their resource estimates because they believed they would be working with the affected State and local governments in a unified command structure. EPA considered past experience in estimating the activities they would be asked to perform. Also, EPA did not use existing data on chlorine storage volumes because it was attempting to develop a national scenario applicable to any chemical.

The Plan does not satisfy EPA's need for a framework to respond to incidents of national significance. While EPA has a proven track record of responding effectively to serious environmental situations, those situations are limited in scope and severity when compared to suggested incidents of national significance. EPA's initial effort is too limited and unstructured to prepare the Agency for an effective response. Assumptions are undocumented, resource requirements unsupported, and internal and external coordination of response planning minimal. As a result, the Plan may focus EPA's preparation for emergency response on the wrong resource allocations, leaving the Agency unprepared. EPA intends to address some of these issues as the Plan is revised; the plan is evolving as EPA continues to make progress and improvements.

What We Recommend

We recommend that EPA revise the Plan to incorporate the methodology and assumptions used to develop all personnel and resource estimates, the rational for the selection of the incidents of national significance, lessons learned from past incidents, logistics of resource deployment, and risk communications. EPA should update key milestones and expand coordination with other EPA offices and relevant Federal agencies in revising the Plan. EPA concurred with our recommendations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
INSPECTOR GENERAL

January 9, 2008

MEMORANDUM

SUBJECT: EPA Should Continue to Improve Its National Emergency Response Planning
Report No. 08-P-0055

FROM: Wade T. Najjum
Assistant Inspector General
Office of Program Evaluation

TO: Susan Parker Bodine
Assistant Administrator
Office of Solid Waste and Emergency Response

Tom Dunne
Associate Administrator
Office of Homeland Security

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. The OIG responded to the Agency's draft report comments by making changes to the report and providing responses to EPA, as appropriate. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established resolution procedures.

The estimated cost of this report – calculated by multiplying the project's staff days by the applicable daily full cost billing rates in effect at the time – is $136,702.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 90 calendar days. Your response should include a corrective action plan for agreed upon actions for Recommendations 2-5 through 2-8, including milestone dates. Please email an

electronic version of your response to Steve Hanna at hanna.steve@epa.gov. Since you concurred with our recommendations and agreed to implement corrective actions for Recommendations 2-1 through 2-4, a report of action is not required for those recommendations. We will close these recommendations in our tracking system when you provide evidence that they are included in the June 2008 National Approach to Response Implementation Plan. We will follow up on EPA's completion of the recommendations. We have no objections to the further release of this report to the public. This report will be available at http://www.epa.gov/oig.

If you or your staff have any questions regarding this report, please contact Carolyn Copper, Director for Program Evaluation, Hazardous Waste Issues, at (202) 566-0829 or copper.carolyn@epa.gov; or Steve Hanna, Project Manager, at (415) 947-4527 or hanna.steve@epa.gov.

Table of Contents

Chapters

Appendices

Chapter 1
Introduction

Purpose

The purpose of this review was to evaluate the U.S. Environmental Protection Agency's (EPA's) progress in preparing to respond to Incidents of National Significance (INSs). EPA's Office of Emergency Management (OEM), within the Office of Solid Waste and Emergency Response, developed the Emergency Response Business Plan (the Plan) as the framework for emergency response to national-level incidents while maintaining an effective day-to-day emergency response and removal program. We addressed the following questions:

- How did EPA calculate the staff and equipment estimates?
- How did EPA incorporate local and State government staff and equipment resources in their need estimates?
- How did EPA incorporate information on existing chlorine tanks into their planning assumptions and need estimates?

Background

OEM published the Emergency Response Business Plan in June 2006. The Plan provides a framework for EPA's emergency response program to address overall readiness for five simultaneous INSs while maintaining an effective day-to-day emergency response and removal program. The Department of Homeland Security (DHS) defines an INS as "an actual or potential high-impact event that requires robust coordination of the Federal response in order to save lives and minimize damage, and provide the basis for long-term community and economic recovery." The plan supports EPA goals to implement its own "National Approach to Response" (NAR) and be responsive to government-wide national response objectives as outlined in the National Response Plan and National Incident Management System.

Table 1.1: DHS Incident of National Significance Scenarios

Scenario	Description
1: Nuclear Detonation	10-Kiloton Improvised Nuclear Device
2: Biological Attack	Aerosol Anthrax
3: Biological Disease Outbreak	Pandemic Influenza
4: Biological Attack	Plague
5: Chemical Attack	Blister Agent
6: Chemical Attack	Toxic Industrial Chemicals
7: Chemical Attack	Nerve Agent
8: Chemical Attack	Chlorine Tank Explosion
9: Natural Disaster	Major Earthquake
10: Natural Disaster	Major Hurricane
11: Radiological Attack	Radiological Dispersal Devices
12: Explosives Attack	Bombing Using Improvised Explosive Device
13: Biological Attack	Food Contamination
14: Biological Attack	Foreign Animal Disease (Foot and Mouth Disease)
15: Cyber Attack	Cyber Attack

Source: DHS National Planning Scenarios

The Plan provides resource estimates (i.e., staff, equipment, and lab

capacity) needed to respond to five simultaneous INSs and an analysis of resource gaps. EPA used 3 of the 15 DHS INS scenarios[1] for its Plan. Table 1.1 lists the 15 DHS scenarios and highlights the 3 included in EPA's Plan. EPA's Plan provides estimates for three distinct scenarios. One scenario includes five simultaneous radiological incidents; a second includes five simultaneous biological incidents; and a third includes a combination of one radiological, one biological, and three chemical incidents.

OEM management said they intend to revise the Plan, in coordination with current planning efforts of EPA's Office of Homeland Security. That office's efforts remain focused on preparing EPA to respond to five simultaneous incidents.

Noteworthy Achievements

OEM demonstrated initiative as it developed EPA's first business plan for responding to INSs. It is a noteworthy step in the process to develop the Agency's capabilities to respond to national level incidents while maintaining control over normal operations. The plan provides a good beginning to a deliberate planning process that should continuously improve as EPA broadens participation and coordination. Since the development of the Plan, EPA has made significant progress in addressing the Agency's NAR priorities. According to OEM management, they:

- Established a Steering Committee to provide oversight and leadership to the numerous workgroups that support the NAR. The committee has met several times to review and assess NAR priority project workplans.

- Developed a draft Incident Management Handbook that provides guidance on organizational structure and outlines the communications flow during an INS. This handbook was finalized in November 2007.

- Developed and delivered a training course for senior managers about emergency response and the use of the Incident Command System to assure that roles and responsibilities are well understood. This course has already been delivered in all of the regions and two Headquarters offices.

- Developed and implemented an Information Technology Strategy to move data and information seamlessly from field tools to enterprise data storage, where it can be shared with EPA partners through the Emergency Management Portal, and with the general public from EPA's public Website. The strategy will link prevention and preparedness data to actual field response data. This portal, which is central to the strategy's implementation, creates a single point of entry to reach all site-specific data, asset management tools, and emergency management information.

[1] In this document, "incident" refers to the occurrence of a single event, while "scenario" refers to specific single or multiple incidents used for planning purposes.

It is currently under development and is scheduled for completion by the end of 2009.

- Completed the equipment module of the Emergency Management Portal in January 2007. Equipment from each region is being renamed according to the new standard terms. As this is completed for each region, the data are being loaded into the database. Over the next several months, each region is to receive training on the new system, check its data to ensure the accuracy of the data migration, and transition to using the new system.

- Formed an Administrative and Finance Workgroup to address procurement, property tracking, and pay issues. To date, the workgroup has helped to publish the EPA Disaster Response Guidebook for Personal Property Management (during emergency/disaster responses), and a Pocket Guide on Pay and Leave Issues during emergencies and disaster responses.

Scope and Methodology

We completed our work in accordance with generally accepted government auditing standards, except that we did not assess internal controls because they were not germane to our review objectives. We assessed the data quality of the resource estimates and assumptions used by EPA for the INS scenarios. We did not verify the noteworthy achievements, which were supplied by OEM management. We performed our review from February to March 2007, at EPA Headquarters and EPA Regions 3 and 9.

To address our first question, we analyzed spreadsheets from EPA that detailed the resource requirements for the three INS scenarios. For our second question, we reviewed the Plan for evidence of internal and external coordination with other Federal agencies, as well as State and local emergency response agencies. For our third question, we performed analysis of the potential number of facilities with chlorine tanks. We estimated this number by using data from the EPA Toxic Release Inventory to identify the number of facilities with high volumes of chlorine stored on-site. In answering all of our evaluation questions, we reviewed the contents of the Plan and interviewed OEM staff as well as emergency response staff in EPA Regions 3 and 9.

We also reviewed the following criteria documents and information:

- EPA's National Approach to Response.
- DHS's National Planning Scenarios.
- EPA's Homeland Security Strategy (2004).
- EPA's Future Years Homeland Security Workplan (2007, 2008, 2009).
- EPA lessons learned from the World Trade Center attacks, Space Shuttle Columbia accident, and Hurricane Katrina.

- EPA's Radiological Emergency Response Plan.
- EPA's Radiological Response Guidelines.
- EPA's National Incident Management Implementation Plan.
- Office of Solid Waste and Emergency Response National Program Manager Guidance.
- EPA's emergency response performance goals.
- Homeland Security Presidential Directives 5 and 8.
- National Incident Management System.
- The Emergency Planning and Community Right-to-Know Act Fact Sheet.
- Clean Air Act Section 112(r) - Risk Management Plans.
- National Contingency Plan.
- National Response System.
- National Response Plan and Emergency Support Functions.

Prior Evaluation Coverage

In 2006, the OIG evaluated a draft version of the Plan. The evaluation ended after the preliminary research phase. The *Exit Memorandum for Preliminary Research of the Effectiveness of EPA's Emergency Response Activities*, Report No. 2006-M-000004, February 24, 2006, included four observations:

1. The Plan provided no rationale for INS scenario selection.
2. Strategic Goals 1 and 2 conflict and may not reflect the most effective or efficient strategy.
3. NAR work plans do not specifically address activities EPA would take on-scene during an emergency response.
4. The Plan's strategy for monitoring performance does not rely on outcome-based measurements.

In the current review, we found that the Agency has not yet taken action to address our prior observation 1; it has addressed observation 3; and it is working to address observation 4. We did not follow up in the current review on EPA's actions to address observation 2.

In addition, we reviewed three prior OIG reports and four Government Accountability Office reports. A listing of those reports is in Appendix A.

Chapter 2
Planning Processes Could Be Improved

The Emergency Response Business Plan (the Plan) does not satisfy EPA's need for a framework to respond to INSs. While EPA has a proven track record of responding effectively to serious environmental situations, those situations were limited in scope and severity when compared to suggested INSs. The existing planning process represents an effort by EPA to address multiple INSs. However, this initial effort is too limited and unstructured to prepare the Agency for an effective response. Assumptions are undocumented, requirements unsupported, and internal and external coordination of response planning minimal or undocumented. As a result, the process may focus EPA's preparation for emergency response on the wrong resource allocations, leaving the Agency unprepared**.** EPA intends to address some of these issues as the Plan is revised.

Plan Assumes No Participation of State and Local Government Emergency Response Resources in National Emergencies

The Plan does not incorporate or reflect the significant resources that State and local emergency response organizations contribute to emergency events. OEM management stated they relied on "best professional judgment" for their resource estimates. Also, EPA lacks the data needed to know who may be locally available and ready to assist. Consequently, EPA's planned needs and resource requirements may be unreliable.

In accordance with the Emergency Planning and Community Right to Know Act of 1986, States and local government agencies have organizations in place to address emergency response. Under this Act, the governor of each State has designated a State Emergency Response Commission responsible for its implementation. These commissions have designated approximately 3,500 Local Emergency Planning Committees (LEPCs). LEPCs maintain an emergency plan for their jurisdictions. These plans reflect and incorporate information that LEPCs get from businesses in their jurisdictions, such as the amount and location of chemicals at a business. The first responders in an emergency, such as fire departments or emergency management organizations, are members of the LEPCs. State and Federal resources typically respond only when the magnitude of an emergency overwhelms local resources.

OEM management told us they intend to revisit the Plan's resource estimates. In addition, they continue to expand their Response Support Corps, which consists of EPA staff who volunteer for deployment in an emergency and receive a required amount of training. We believe that EPA should identify LEPC and State resources for assistance in an emergency. These first responders, from

agencies other than those in the impacted areas, could represent a significant trained resource to aid in emergency response. EPA's consideration of these existing resources would better define the capabilities EPA will need to provide, resulting in a capability-based resource effort and improved resource management. EPA management stated they did not consider State and local resources in their resource estimates because they believed they would be working with the affected State and local governments in a unified command structure. EPA management considered past experience in estimating the activities they would be asked to perform. However, the 2006 Plan does not clearly state this assumption, and the next iteration should do so. Further, EPA should consider incorporating existing State and local resources into their future regional planning efforts.

Existing Data on Chemical Threats Not Used in Planning

EPA's planning scenario for chlorine (i.e., chemical tank explosion) is a general theoretical scenario and not based on a past incident or derived from information on chlorine tank locations and volumes. The DHS planning scenario for a chlorine tank explosion is also not based on actual tank locations and volumes. However, data are available on the locations of facilities with large chlorine volumes, from sources such as the Toxic Release Inventory, Risk Management Plans, and LEPCs. For example, 2004 Toxic Release Inventory data show that 265 facilities report a maximum on-site chlorine volume greater than 100,000 pounds. Of those 265 facilities, 15 reported on-site chlorine volumes greater than 10,000,000 pounds. This type of information could assist EPA with developing realistic planning scenarios for chlorine-related emergency events.

OEM management said that they did not focus on existing chlorine stores because they were only using chlorine as an example of a chemical incident. OEM management also said they did not consider existing chlorine tanks because they were developing a national scenario that would be applicable to a general chemical event rather than just chlorine. EPA comments also stated that they might not include a chlorine scenario in their next plan. This is because they believe it would not strain resources, EPA has experience with chlorine events, and the duration of the response would not be lengthy. We believe EPA should incorporate its knowledge of major repositories of existing chemicals, to include chlorine when appropriate, in its future regional planning efforts for chemical-specific events. This especially applies to those repositories in proximity to populated areas. This could include a review of the Risk Management Plan submittals from high-volume facilities. EPA has stated that regional offices currently work with Risk Management Plan implementing agencies on facility planning to prevent and respond to chemical releases.

Rationale for Planning for Multiple Simultaneous Incidents Not Provided

The Plan does not state the rationale for the goal of being ready for five simultaneous incidents (as opposed to more or fewer incidents), nor why these particular scenarios were chosen. The scenarios selected were radiological (a dirty bomb), biological (anthrax), and a chemical explosion (chlorine tank). These represent 3 of the 15 DHS INS scenarios. EPA would also likely have a role in other DHS scenarios, including a blister agent, toxic industrial chemicals, a nerve agent, and a major earthquake or hurricane.

OEM management told us that senior Office of Solid Waste and Emergency Response officials defined the scenario of five simultaneous incidents as a planning assumption. EPA staff indicated they selected the three specific scenarios because they would involve a high degree of EPA involvement. EPA selected the chlorine scenario because of EPA's experience with chemical cleanup as a core program activity. Staff selected a radiological scenario because they thought they had little experience in this area and thus needed additional planning. According to EPA staff, EPA selected the anthrax scenario because it seemed especially relevant due to the 2001 anthrax attacks on Capitol Hill in Washington.

EPA believes that planning for multiple incidents rather than a single event is more realistic, because past terrorist attacks have often involved multiple targets. However, planning for multiple incidents significantly expands the scope of the planning and resource requirements. The basic assumptions and rationales should be identified so that leadership can make informed resource decisions.

Plan Has Inconsistencies

EPA's Plan scenarios are inconsistent with DHS scenarios or other parts of the Plan:

- The DHS chlorine tank scenario assumes the detonation of a 60,000-gallon chlorine tank (approximately 480,000 pounds), situated in an urban center with other industrial and residential land use nearby. EPA's chlorine scenario identifies a 60-ton chlorine cylinder (approximately 120,000 pounds), a quarter of the size of the DHS tank.
- The Plan's radiological scenario assumes five simultaneous radiological attacks, in five different EPA regions, using dirty bomb dispersal devices. However, the DHS radiological scenario involves three simultaneous dirty bombs in cities close to one another. EPA's scenario assumes more incidents involving a larger geographic area.
- The Plan's biological scenario has an internal inconsistency. The Plan states the anthrax assessment phase would take approximately 6 months while the cleanup phase would take upwards of 8 months, for a total response action lasting 14 months. However, the Plan's general planning

assumptions indicate that, for all scenarios, EPA activity will continue for 26 weeks (approximately 6 months).

EPA's Plan does not acknowledge or explain these apparent differences, which has an impact on the scale of the planned response and the resources required. EPA told us that DHS had not completed its scenario descriptions at the time EPA was developing the Plan, which may explain differences between the EPA and DHS assumptions.

Some NAR Milestones Have Not Been Met

EPA has not met some of the NAR work plan dates, and many of the work plans do not identify a lead person. EPA has identified the NAR as its mechanism for managing emergency response assets in a coordinated manner during an INS. EPA has recognized that certain activities, such as putting contracts in place, must be completed in order to respond effectively during an INS. These activities are detailed in a list of NAR work plans. The Plan includes 93 NAR work plans, and EPA has identified 14 as priority work plans that have estimated completion dates. EPA has emphasized the importance of the NAR. The Assistant Administrator for Solid Waste and Emergency Response testified at a Senate hearing to the fact that the NAR provides EPA with the ability to respond whenever and wherever needed. OEM management has indicated they are working on updating these plans, and that additional work plans will address administration, logistics, and property management.

Plan Documents Little EPA Internal Federal Coordination

OEM management indicated that, with the exception of the Office of Air and Radiation and the Office of Acquisition Management, they did not coordinate the Plan with other EPA program offices. OEM also did not document any coordination or consultation with other Federal agencies to determine their possible roles and/or availability of resources from other Federal agencies. However, OEM consulted with emergency response staff in the EPA regions on the Plan and incorporated their input. Examples of expertise and possible resources available in other EPA offices or Federal agencies include:

- The EPA Office of Drinking Water and Ground Water has experience with planning for bioterrorism.
- The Centers for Disease Control and Prevention have experience with biological disasters. DHS's anthrax planning scenario clearly states that the Centers for Disease Control and Prevention and EPA would be working and making decisions together during such a scenario.
- The Department of Energy has experience dealing with radiological disasters and is usually the first responder for a radiological incident.

OEM management indicated that they did not coordinate with other agencies because they wanted to test and verify the Plan internally before discussing with other agencies, and that they developed the Plan to show how OSWER activities had changed. Without coordination with other agencies, EPA risks duplication or conflict in its emergency response. OEM managers have indicated they are coordinating with other Agency offices as they move forward with the new NAR implementation plan, and they coordinate their planning efforts with other Federal agencies through existing planning frameworks.

Lessons Learned from Past National Emergency Incidents Not Included in Plan

The Plan acknowledges the importance of lessons learned from national emergency events, yet these lessons were either not incorporated or explicitly identified in the Plan. In the past several years, the United States has experienced several national emergency events, such as the World Trade Center attacks, Capitol Hill anthrax incident, Space Shuttle Columbia accident, and Hurricane Katrina. Lessons learned from these incidents can provide useful information in planning for future incidents by identifying which activities work and which need to be improved. OEM management stated they are adding work plans to address specific issues that came up during Hurricane Katrina, such as administration, logistics, and property management. According to EPA, lessons learned from past national incidents were incorporated into their NAR priorities, to include "Administrative Issues" and "Crisis Communications." OEM management has also indicated that lessons learned will be identified and included in the next version of the Plan, which OEM expects to finalize no earlier than March 2008.

Logistics of Resource Deployment Not Accounted for in Plan

The Plan does not specifically identify logistics as an issue or identify mechanisms to ensure logistics requirements do not limit EPA's response actions. Emergency planning requires planning for the transportation, housing, and other support (e.g., food) of the personnel involved. Transportation, housing, and feeding responders were significant activities in EPA's response to Hurricane Katrina. Without addressing logistics in the Plan, EPA may encounter difficulties in implementing its response plans due to problems that can arise in transporting, housing, and supporting responders. OEM management indicated that logistics issues were not included in the plan because their importance was not recognized until Hurricane Katrina, which occurred after the initial draft of the Plan. OEM plans to address logistics in the next version of the Plan.

Plan Does Not Account for Key Issues in EPA's Risk Communications with the Public

The NAR communication work plans identified in the Plan do not explicitly address EPA's role or responsibilities in deciding and communicating what risks

the public faces when returning to or staying in an affected area. Both the World Trade Center attacks and Hurricane Katrina demonstrated the public's expectation that EPA has a lead role in clearly communicating risks to the public regarding the safety of contaminated disaster areas. This includes communicating what the risks are to residents who return to contaminated disaster areas. EPA's Plan includes two NAR communication work plans, to:

1. Develop specialized communication tools to support outreach and risk communication.
2. Develop training to support outreach and risk communication.

This has proven to be a critical activity for EPA to manage and respond to in recent national emergencies. EPA officials told us they are currently participating with the White House Office of Science and Technology Policy to develop a methodology for deciding how to determine when it is safe to return. While this is an important step, it is also necessary for EPA to identify methodologies it will use to determine and communicate risk. Also, EPA needs to know in each scenario what its role will be in advising decision authorities and the public, especially displaced residents and businesses, on the risks of returning to impacted areas.

Conclusions

The current Plan does not satisfy EPA's need for a framework to respond to INSs. The existing planning process is too limited and unstructured to prepare the Agency for an effective response. Assumptions are undocumented, requirements unsupported, and internal and external coordination of response planning minimal. As a result, the process may focus EPA's preparation for emergency response on the wrong resource allocations, leaving the Agency unprepared**.**

Recommendations

We recommend the Director of EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security, incorporate revisions to the Plan or any follow-on planning documents (such as implementation plans) that:

2-1 Include the methodology and assumptions used to develop all personnel and resource estimates, including the potential availability of other Federal, State, or local resources.

2-2 Include information from existing chemical inventory data and risk management plans when planning for chemical incidents, such as chlorine tank explosions when appropriate, at the regional level. This could include a review of the Risk Management Plan submittals from high-volume facilities. EPA has stated that regional offices currently work with Risk

Management Plan implementing agencies on facility planning to prevent and respond to chemical releases.

2-3 Document the rationale for the selection of the INS scenarios addressed, including:

a. EPA's anticipated role in each of the INS scenarios.
b. The need to plan for five simultaneous incidents.
c. The reasons for differences between EPA's and DHS's chlorine and radiological scenarios, where they remain.

2-4 Update NAR milestones and progress indicators for milestone completion.

2-5 Expand internal EPA coordination and coordination with other relevant Federal, State, and local emergency response agencies.

2-6 Incorporate lessons learned from past incidents, such as the World Trade Center attacks, Capitol Hill anthrax incident, and Hurricane Katrina.

2-7 Incorporate logistics of resource deployment, such as transportation, housing, and feeding of EPA responders.

2-8 Define communication activities that inform the public of risks in contaminated disaster areas, including:

a. Methodologies used to determine and communicate risk to residents returning to contaminated disaster areas.
b. The role of local, State, or Federal agencies in risk communications.
c. How decisions about risk will be made under specific scenarios.
d. How risk decisions will be communicated under specific scenarios.

Agency Comments and OIG Evaluation

The OIG made changes to the report based on the Agency's comments where appropriate. Appendix B provides the full text of the Agency comments and OIG response.

EPA concurred with all recommendations. EPA initially did not concur with Recommendation 2-2, which recommended including existing chemical inventory data in planning efforts. We changed this recommendation to address Agency concerns, and EPA agreed with the revised recommendation.

EPA said it will incorporate Recommendations 2-1 through 2-7 into the NAR Implementation Plan, which is scheduled for completion by June 2008. Recommendation 2-8 is to be addressed by the Crisis Communications Resource Guide, which is scheduled for completion in December 2008.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in $000s)	
Rec. No.	Page No.	Subject	Status[1]	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
2-1	10	Include the methodology and assumptions used to develop all personnel and resource estimates, including the potential availability of other Federal, State, or local resources.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-2	10	Include information from existing chemical inventory data and risk management plans when planning for chemical incidents, such as chlorine tank explosions when appropriate, at the regional level. This could include a review of the Risk Management Plan submittals from high-volume facilities. EPA has stated that regional offices currently work with Risk Management Plan implementing agencies on facility planning to prevent and respond to chemical releases.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-3	11	Document the rationale for the selection of the INS scenarios addressed, including (a) EPA's anticipated role in each of the INS scenarios; (b) the need to plan for five simultaneous incidents; and (c) the reasons for differences between EPA's and DHS's chlorine and radiological scenarios, where they remain.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-4	11	Update NAR milestones and progress indicators for milestone completion.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-5	11	Expand internal EPA coordination and coordination with other relevant Federal, State, and local emergency response agencies.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-6	11	Incorporate lessons learned from past incidents, such as the World Trade Center attacks, Capitol Hill anthrax incident, and Hurricane Katrina.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		
2-7	11	Incorporate logistics of resource deployment, such as transportation, housing, and feeding of EPA responders.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	June 2008		

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in $000s)	
Rec. No.	Page No.	Subject	Status[1]	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
2-8	11	Define communication activities that inform the public of risks in contaminated disaster areas, including (a) methodologies used to determine and communicate risk to residents returning to contaminated disaster areas; (b) the role of local, State, or Federal agencies in risk communications; (c) how decisions about risk will be made under specific scenarios; and (d) how risk decisions will be communicated under specific scenarios.	O	Director, EPA's Office of Emergency Management, in cooperation with the Associate Administrator for EPA Homeland Security	December 2008		

[1] O = recommendation is open with agreed-to corrective actions pending
C = recommendation is closed with all agreed-to actions completed
U = recommendation is undecided with resolution efforts in progress

Appendix A

Prior Reports

EPA OIG Reports		
Title	**Report No.**	**Date**
EPA's Homeland Security Role to Protect Air from Terrorist Threats Needs to be Better Defined	2004-M-000005	February 20, 2004
EPA Needs to Better Manage Counter Terrorism/Emergency Response Equipment	2004-P-00011	March 29, 2004
Lessons Learned: EPA's Response to Hurricane Katrina	2006-P-00033	September 14, 2006

Government Accountability Office Reports		
Title	**Report No.**	**Date**
Anthrax Detection – Agencies Need to Validate Sampling Activities in Order to Increase Confidence in Negative Results	GAO-05-251	March 2005
Critical Infrastructure Protection – Progress Coordinating Government and Private Sector Efforts Varies by Sectors' Characteristics	GAO-07-39	October 2006
Homeland Security – Preparing for and Responding to Disasters	GAO-07-395T	March 2007
Anthrax Detection – DHS Cannot Ensure That Sampling Activities Will Be Validated	GAO-07-687T	March 2007

Appendix B

Agency Response to Draft Report and OIG Evaluation

December 5, 2007

MEMORANDUM

SUBJECT: Response to OIG Draft Evaluation Report: "EPA Should Continue to Improve Its National Emergency Response Planning" Assignment No. 2007-00573

FROM**:** Susan Parker Bodine/s/
Assistant Administrator
Office of Solid Waste and Emergency Response

Thomas P. Dunne/s/
Associate Administrator
Office of Homeland Security

TO: Bill A. Roderick
Acting Inspector General

Thank you for the opportunity to comment on this draft report. We also appreciate the meetings we have had with your staff to discuss our planning efforts. We are providing a response to your draft recommendations followed by some specific comments on the draft report.

Response to Recommendations

2-1. Include the methodology and assumptions used to develop all personnel and resource estimates, including the potential availability of other Federal, State, or local resources.

Response**:** We agree with this recommendation. We are currently revising the estimates regarding the resources that are required for EPA to respond to five Incidents of National Significance (INS). This will be part of an agency-wide National Approach to Response (NAR) Implementation Plan. This plan will document planning assumptions and to the extent possible, we will address how we considered the availability of other Federal, State, or local resources. We expect that this NAR Implementation Plan will be completed by June 2008.

2-2. Include information from existing chemical inventory data and risk management plans when planning for chemical incidents, such as chlorine tank explosions, at the regional level.

Response: We do not agree with this recommendation. In fact, we are currently considering not including the chlorine scenario in the new NAR Implementation Plan. EPA has responded to numerous chemical incidents in recent years. Even though a release of a substantial amount of chlorine would be considered a major incident, we believe that it would not strain Agency resources because we have experience with this type of response and the duration of the response would not be lengthy.

EPA regional offices work with Risk Management Program State implementing agencies regarding facility planning to prevent and respond to releases of chlorine and certain other chemicals. Further, DHS works with these facilities regarding site security issues.

OIG Response

Based on EPA's response, we changed Recommendation 2-2 and statements in the report as indicated in the following paragraphs. EPA concurred with the amended recommendation.

We changed Recommendation 2-2 on page 10 of our report to read as follows: "Include information from existing chemical inventory data and risk management plans when planning for chemical-specific incidents, such as chlorine tank explosions, at the regional level. This could include a review of the Risk Management Plan submittals from high-volume facilities. EPA has stated that regional offices currently work with Risk Management Plan implementing agencies on facility planning to prevent and respond to chemical releases."

We also changed on page 6 of our report to read as follows: "EPA comments also stated that they might not include a chlorine scenario in their next plan. This is because they believe it would not strain resources, EPA has experience with chlorine events, and the duration of the response would not be lengthy. We believe EPA should incorporate its knowledge of major repositories of existing chemicals, to include chlorine when appropriate, in its future regional planning efforts for chemical-specific events. This especially applies to those repositories in proximity to populated areas. This could include a review of the Risk Management Plan submittals from high-volume facilities. EPA has stated that regional offices currently work with Risk Management Plan implementing agencies on facility planning to prevent and respond to chemical releases."

2-3. Document the rationale for the selection of the INS scenarios addressed, including:

a. EPA's anticipated role in each of the INS scenarios.
b. The need to plan for five simultaneous incidents.
c. The reasons for differences between EPA's and DHS's chlorine and radiological scenarios, where they remain.

Response**:** We agree with this recommendation and will provide the appropriate documentation in the NAR Implementation Plan that is described in response to Recommendation 2-1 above.

2-4. Update NAR milestones and progress indicators for milestone completion.

Response**:** We agree with this recommendation and will include the NAR milestones and progress for milestones completion in the NAR Implementation Plan that is described in response to Recommendation 2-1 above. There are currently 14 NAR priorities for which work is underway.

2-5. Expand internal EPA coordination and coordination with other relevant Federal, State, and local emergency response agencies.

Response**:** As mentioned in response to Recommendation 2-1, the new NAR Implementation Plan will be agency-wide. To gather more input from across the program offices in EPA, we asked National Incident Coordination Team (NICT) members to provide representatives to work with OSWER on the revision to what is needed for five INS. Additionally the NICT will have an opportunity to review and provide comments on the draft plan.

EPA is a member of the DHS Incident Management Planning Team and will use that opportunity to coordinate certain aspects of this plan. Additionally, EPA coordinates planning efforts with other federal agencies through work on emergency support functions.

While EPA coordinates routinely with State and local emergency response agencies, and we will continue to do so, we do not foresee including State and local capability in this plan. The issue here is that state and local capability varies widely across the country. In preparing national planning estimates, it is very difficult to generalize how States and locals will participate and to what degree. However, our Regional offices will continue to coordinate with the States and locals at their level and as they do more specific planning for their geographical areas. We did consider generally what we would do recognizing that we would be working with affected state and local governments in a unified command structure.

2-6. Incorporate lessons learned from past incidents, such as the World Trade Center attacks, Capitol Hill anthrax incident, and Hurricane Katrina.

Response**:** As we have mentioned in discussions with OIG representatives, lessons learned from all of these past incidents are already incorporated in the NAR priorities. For example, as a result of Hurricane Katrina, two new NAR priorities were identified: Administrative Issues and Crisis Communication. We are currently using experience from Hurricane Katrina in the revision of estimated resources required for five INS.

OIG Response

We added the following sentence to page 9 of our report: "According to EPA, lessons learned from past national incidents were incorporated into their NAR priorities, to include 'Administrative Issues' and 'Crisis Communications.'"

2-7. Incorporate logistics of resource deployment, such as transportation, housing, and feeding of EPA responders.

Response**:** Lessons learned on the above mentioned logistic issues were added to the NAR Administrative priority and also the Contracts priority work. In this way, they will be included in the NAR Implementation Plan described in response to recommendation 2-1 above. However, the specific details for these issues will need to be described as part of the actual incident action plan as they will be dependent on a number of factors that can only be known when the incident occurs.

2-8. Define communication activities that inform the public of risks in contaminated disaster areas, including:

a. Methodologies used to determine and communicate risks to residents returning to contaminated disaster areas.
b. The role of local, State, or Federal agencies in risk communications.
c. How decisions about risk will be made under specific scenarios.
d. How risk decisions will be communicated under specific scenarios.

Response**:** These activities will be addressed in the NAR Crisis Communications priority. A Crisis Communications Resource Guide with information about the above activities will be prepared by the Crisis Communications Workgroup which is chaired by the Office or Public Affairs, OEM and Region 1. This Resource Guide is scheduled for completion in December 2008.

Specific Comments on the Draft Evaluation Report

At a Glance, first paragraph and Page 6, first paragraph**.** We disagree with the statement that EPA did not consider State and local resources because we assumed that they would be overwhelmed or unavailable. EPA routinely works with State and local governments on responses to incidents of all sizes. While we realize that the capabilities vary, we did consider generally what we would do recognizing that we would be working with the affected State and local governments in a unified command structure. We considered past experience in estimating the activities that we would be asked to perform.

OIG Response

We changed text in the At A Glance and page 6 of our report to read as follows: "EPA management stated they did not consider State and local resources in their resource estimates because they believed they would be working with the affected State and local governments in a unified command structure. EPA considered past experience in estimating the activities they would be asked to perform."

Page 2, second bullet under Noteworthy Achievements. The Incident Management Handbook was finalized in November.

OIG Response

We added the following statement to page 2 of our report: "This handbook was finalized in November 2007."

Page 5, first paragraph**. –** We disagree with the conclusion that EPA is unprepared. As we discussed during our meetings with OIG representatives, the Emergency Response Business Plan was intended to show how the emergency response and preparedness activities changed since the events of September 11. Estimating resources for 5 INS was a planning exercise in an effort to begin to identify the personnel, equipment and contractor resources that may be required for multiple incidents. We realized at the time that we cannot predict what scenarios will occur.

EPA does extensive planning and coordination with State and local officials at the regional level. In both Headquarters and the regions, EPA staff work under the National Response Plan emergency support function framework to coordinate planning efforts. Additionally, EPA coordinates these efforts through the National Response Team and Regional Response Teams that were created under the National Contingency Plan.

OIG Response

The report states that EPA **may** be unprepared if the issues we have identified are not addressed. As documented in its response to the draft report, EPA intends to address or has addressed most of the issues we have identified. In subsequent discussions, EPA indicated that, in context, it does not disagree with the report conclusions. No change made in the final report.

Page 5, third paragraph**.** Local Emergency Planning Committees (LEPCs) are planning entities. They are not the first responders in an emergency. We suggest that you replace LEPCs with local responders. Also, although EPA works with States, LEPCs, and other local officials on a routine basis and therefore has some information on local capabilities, EPA regions do not conduct surveys to quantify the local resources available. The NAR implementation planning effort will not enumerate the capabilities of each local emergency planning district. Such efforts would not only vary given specific scenarios, but they would need to be updated regularly. We suggest that the last sentence in this paragraph be deleted to avoid confusion.

OIG Response

We changed text on page 5 of our report to read as follows: "The first responders in an emergency, such as fire departments or emergency management organizations, are members of the LEPCs." The last sentence in the paragraph was deleted.

We will however continue to work through the regions to better document our interaction with State and local responders and assess their capabilities. We understand that some States and localities have mutual aid agreements in place. We will continue to explore whether that mutual aid should be expanded nationally.

Page 8, last two paragraphs**.** Regarding internal federal coordination, as we discussed in meetings with OIG representatives, the Emergency Response Business Plan was originally developed to show how the OSWER activities had changed. As we move forward with the new NAR implementation plan we are working through the NICT to involve other Agency offices. Also, as we have indicated earlier, we coordinate our planning efforts with other federal agencies through the NRP and NRT frameworks.

OIG Response

We changed the section heading on page 8 of our report to read as follows: "Plan Documents Little EPA Internal Federal Coordination." We changed text on page 8 of our report to read as follows: "OEM also did not document any coordination or consultation with other Federal agencies to determine their possible roles and/or availability of resources from other Federal agencies." We changed text on page 9 of our report to read as follows: "OEM management indicated that they did not coordinate with other agencies because they wanted to test and verify the Plan internally before discussing with other agencies, and that they developed the Plan to show how OSWER activities had changed. Without coordination with other agencies, EPA risks duplication or conflict in its emergency response. OEM managers have indicated they are coordinating with other Agency offices as they move forward with the new NAR implementation plan, and they coordinate their planning efforts with other Federal agencies through existing planning frameworks."

Thank you again for the opportunity to comment on the draft report. Please do not hesitate to contact us if you have questions or would like to discuss our comments.

Appendix C

Distribution

Office of the Administrator
Assistant Administrator, Office of Solid Waste and Emergency Response
Associate Administrator, Office of Homeland Security
Principal Deputy Assistant Administrator, Office of Solid Waste and Emergency Response
Associate Assistant Administrator, Office of Solid Waste and Emergency Response
Director, Office of Emergency Management, Office of Solid Waste and Emergency Response
Agency Followup Official (the CFO)
Office of General Counsel
Agency Followup Coordinator
Associate Administrator for Congressional and Intergovernmental Relations
Associate Administrator for Public Affairs
Audit Followup Coordinator, Office of Solid Waste and Emergency Response
Deputy Inspector General