



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

EPA Progress on the 2007 Methamphetamine Remediation Research Act

Report No. 11-P-0708

September 27, 2011



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Abbreviations

DEA	Drug Enforcement Administration
EPA	U.S. Environmental Protection Agency
HHW	Household Hazardous Waste
NIST	National Institute of Standards and Technology
OEM	Office of Emergency Management
OIG	Office of Inspector General
ORD	Office of Research and Development
OSWER	Office of Solid Waste and Emergency Response

Cover photo: Members of the New Jersey Department of Emergency Management responding to a clandestine drug lab. (Photo courtesy Association of State and Territorial Solid Waste Management Officials)

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At a Glance

Catalyst for Improving the Environment

Why We Did This Review

We conducted this review to determine the effectiveness of the U.S. Environmental Protection Agency's (EPA's) methamphetamine laboratory, or meth lab, cleanup guidelines, and the status of EPA's required activities under the 2007 Methamphetamine Remediation Research Act (Meth Act).

Background

Thousands of clandestine meth labs are discovered in the United States each year in houses, hotels, apartments, and vehicles. Chronic exposure to residual meth lab chemicals can cause cancer; damage to the brain, liver, and kidneys; and reproductive problems. The Meth Act requires EPA to develop cleanup guidelines for meth labs; develop a research plan to identify chemicals of concern and possible exposure, and evaluate cleanup techniques; perform a study of residual effects of meth lab chemicals; and convene a technology transfer conference every 3 years.

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

The full report is at:

www.epa.gov/oig/reports/2011/20110927-11-P-0708.pdf

EPA Progress on the 2007 Methamphetamine Remediation Research Act

What We Found

EPA has met some, but not all, of its requirements under the Meth Act. While EPA did publish an initial set of guidelines, *Voluntary Guidelines for Methamphetamine Laboratory Cleanup*, in August 2009, it has not yet developed plans to periodically update the guidelines as required. EPA developed a draft multiyear research plan, but has delayed its implementation. EPA also has no plans to convene the technology transfer conference within the required timeframe. Finally, although EPA satisfied the requirement to conduct a study of residual effects by performing a literature review of the health impacts of chemicals remaining in meth labs, it did not transmit the required report to Congress.

According to EPA staff, EPA has not been able to fully implement the Meth Act requirements because EPA's authorized Meth Act funding of \$3.5 million was never appropriated. As a result, EPA's work to meet the Meth Act's requirements has been funded by resources redirected from other programs. From 2008 through January 2011, EPA's estimated total expenditures to address the Meth Act requirements, including personnel and contract costs, were more than \$1.1 million.

EPA has no controls in place to track legislative requirements Agency-wide. EPA relies on its program offices to do so, but these program offices also do not have controls in place to track all legislative requirements.

What We Recommend

We recommend that EPA determine the Agency's ability to implement the Meth Act requirements and communicate its plan to Congress. We also recommend that EPA update several areas of the voluntary guidelines and develop internal controls to ensure legislative requirements are identified, tracked, and met. EPA agreed with these recommendations. The recommendations are listed as unresolved because planned completion dates were not provided. In its final response to this report, EPA should describe its specific corrective actions to address the recommendations and provide estimated completion dates for these actions.



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

THE INSPECTOR GENERAL

September 27, 2011

MEMORANDUM

SUBJECT: EPA Progress on the 2007 Methamphetamine Remediation Research Act
Report No. 11-P-0708

FROM: Arthur A. Elkins, J
Inspector General

A handwritten signature in black ink, appearing to read "Arthur A. Elkins, Jr.", is written over the printed name of the Inspector General.

TO: See Below

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. 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 direct labor and travel costs for this report are \$195,943.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 90 calendar days. The recommendations are listed as unresolved because planned completion dates were not provided. Your response should include a corrective action plan for agreed-upon actions, including actual or estimated milestone completion dates. Your response will be posted on the OIG's public website, along with our comments on your response. Your response should be provided in an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. Please e-mail your response to Carolyn Copper at copper.carolyn@epa.gov. If your response contains data that you do not want to be released to the public, you should identify the data for redaction. We have no objections to the further release of this report to the public.

If you or your staff have any questions regarding this report, please contact Wade Najjum at (202) 566-0827 or najjum.wade@epa.gov, or Carolyn Copper at (202) 566-0829 or copper.carolyn@epa.gov.

Addressees:

Mathy Stanislaus, Assistant Administrator for Solid Waste and Emergency Response

Paul T. Anastas, Assistant Administrator for Research and Development

Arvin Ganesan, Associate Administrator for Congressional and Intergovernmental Relations

Michael L. Goo, Associate Administrator for Policy

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Chapter 1

Introduction

Purpose

We conducted this review to determine the effectiveness of the U.S. Environmental Protection Agency's (EPA's) methamphetamine laboratory, or meth lab, cleanup guidelines, and the status of EPA's required activities under the 2007 Methamphetamine Remediation Research Act (Meth Act).

Background

Methamphetamine is a highly addictive, synthetic stimulant that affects the central nervous system. It is produced most frequently for use as an illicit recreational drug using readily available chemicals and equipment (figure 1). Meth labs are found in houses, apartments, hotels, and vehicles. Meth production releases numerous chemical byproducts, such as volatile organic compounds, acids, bases, and metals, in addition to meth itself. These contaminants can remain in carpet, walls, floorboards, or other structures.

Additionally, chemicals may be improperly disposed by dumping or burying on the property, or pouring down the drain into sewers or septic tanks. Each pound of meth manufactured results in 5 to 6 pounds of highly toxic waste.

Figure 1: Common meth lab ingredients



Department of Justice photo.

EPA has identified 75 chemicals associated with former meth labs. These chemicals may require disposal as hazardous waste, and include:

- Cyanides—sodium cyanide and hydrogen cyanide
- Irritants and corrosives—hydrochloric acid, phosphine gas, and sulfuric acid
- Metals/salts—red phosphorus and lead acetate
- Solvents—acetone, benzene, chloroform, ethyl ether, and toluene
- Other potentially hazardous chemicals—ammonia, iodine, hydrogen, LSD, and phenyl-2-propane

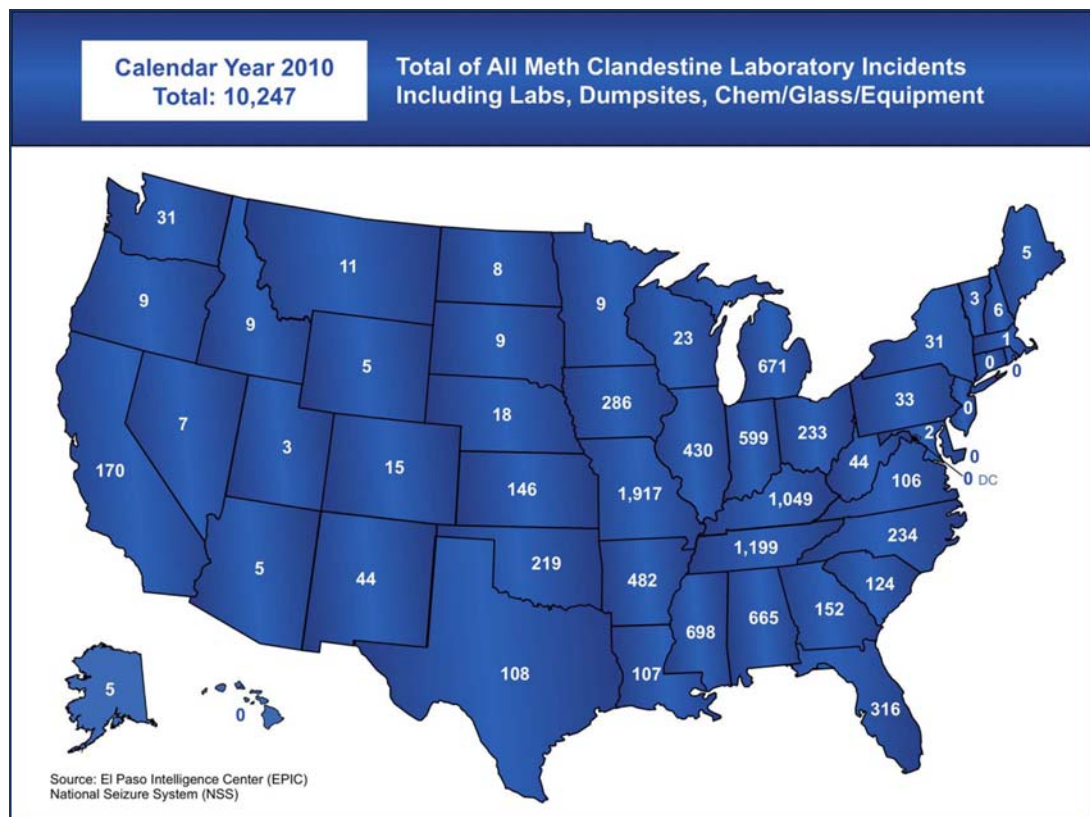
Health and Safety Risks

According to the White House Office of National Drug Control Policy, children who live at or visit drug-production sites or are present during drug production face a variety of health and safety risks, including inhalation, absorption, or ingestion of toxic chemicals, drugs, or contaminated foods that may result in nausea, chest pain, eye and tissue irritation, chemical burns, and death. If former meth labs have not been decontaminated properly, chronic exposure to residual, dangerous, and hidden chemicals can cause serious health problems, such as cancer; damage to the brain, liver, and kidneys; birth defects; and reproductive problems such as miscarriages.

Removal and Remediation

Thousands of meth labs are discovered nationwide each year (figure 2). After a meth lab has been seized and processed for evidence, law enforcement is responsible for the removal and disposal of the bulk hazardous waste. In most states, the Drug Enforcement Administration (DEA) has funded the removal of chemicals, drugs, and the apparatus used to manufacture the drugs,¹ but DEA

Figure 2: 2010 Meth lab incidents



¹ This funding came from the DEA Community Oriented Policing Services Program. DEA is no longer funding this program as of fiscal year 2011.

does not remediate residual contamination at these sites. Remediation of residual contamination is the responsibility of the property owner or state or local governments. The property owner and local government agencies must comply with state and federal safety and environmental regulations. State meth lab cleanup requirements vary significantly—some states have no regulations for residual contamination while others have established laws or guidelines.

Difficulties with remediation of meth labs are illustrated by examples of residual contamination causing health problems for unsuspecting residents, especially children, living in former meth lab homes. For example, a 2009 *New York Times* article reported on a family who unknowingly resided in a former Tennessee meth lab.² The family's three young children developed breathing problems that required repeated trips to the emergency room, and the parents developed kidney ailments. The family discovered that the house had been a meth lab more than 5 years after moving in. The house was contaminated with high levels of meth. After the family moved out of the house, their health problems largely subsided.

The Methamphetamine Remediation Research Act of 2007

The Methamphetamine Remediation Research Act of 2007 was enacted in December 2007. The Meth Act states the following findings by Congress:

- (1) Methamphetamine use and production is growing rapidly throughout the United States.
- (2) Materials and residues remaining from the production of methamphetamine pose novel environmental problems in locations where methamphetamine laboratories have been closed.
- (3) There has been little standardization of measures for determining when the site of a closed methamphetamine laboratory has been successfully remediated.
- (4) Initial cleanup actions are generally limited to removal of hazardous substances and contaminated materials that pose an immediate threat to public health or the environment. It is not uncommon for significant levels of contamination to be found throughout residential structures after a methamphetamine laboratory has closed, partially because of a lack of knowledge of how to achieve an effective cleanup.
- (5) Data on methamphetamine laboratory-related contaminants of concern are very limited, and cleanup standards do not currently exist. In addition, procedures for sampling and analysis of contaminants need to be researched and developed.
- (6) Many States are struggling with establishing remediation guidelines and programs to address the rapidly expanding number of methamphetamine laboratories being closed each year.

² *The New York Times*, "Illnesses Afflict Homes With a Criminal Past," July 14, 2009.

The purpose of the Meth Act is “to establish a Federal research program to support the development of voluntary guidelines to help states address the residual consequences of former methamphetamine laboratories.” The Meth Act requires EPA to develop model, voluntary, health-based, cleanup guidelines based on the best available scientific knowledge that may be used by states and localities to remediate former meth lab sites. The Meth Act addresses the specific problem of determining the level of cleanup required to ensure that a former meth lab is safe for occupation. States do not have to follow the guidelines, however—they are voluntary and not a federal mandate.

The scope of the problem of meth lab cleanup is illustrated by congressional testimony during committee hearings (figure 3).

Figure 3: Excerpts from congressional testimony on the 2007 Meth Act

“Right now there are unsuspecting families living in homes that were once illegal meth labs. Dangerous and hidden toxic substances in these sites threaten the health of these families—with children being the most vulnerable to the devastating, long-term effects of exposure.”—Representative Bart Gordon (Tennessee)

“This is a—unfortunately, a scourge that is all over this country and affects millions of people adversely.”—Representative Ken Calvert (California)

“In my three decades of public service, I don’t think I’ve ever seen a problem as pervasive or as damaging as the methamphetamine epidemic that is sweeping our country. Meth is a serious threat to public health and safety, not only because of the highly addictive nature of the drug itself and its ease of production, but also the toxic chemicals used in its manufacture that are contaminating our communities.”—Representative Darlene Hooley (Oregon)

Source: Report 110-8, House of Representatives, 110th Congress 1st session, *Methamphetamine Remediation Research Act of 2007*.

The Meth Act also requires EPA to develop a research program, submit a report to Congress on how the residual effects study will affect the guidelines and the research program, convene regular conferences for sharing information and submit a report to Congress on feedback obtained during the conferences, and periodically update the guidelines. EPA states that the guidelines and the research program should meet the Meth Act goal of improving “our national understanding of identifying the point at which former methamphetamine laboratories become clean enough to inhabit again.”

Noteworthy Achievements

According to EPA, since 1999, EPA’s Clandestine Methamphetamine Laboratory First Responder Awareness and Operations training program has been offered to more than 1,200 first responders through 30 courses in 8 EPA regions and 2 U.S. territories.

According to EPA, since 2007 the EPA Local Governments Reimbursement Program has awarded over \$700,000 for expenses related to the release of hazardous substances and associated emergency response measures. Approximately 25 percent of the total awarded was for the cleanup of former meth labs.

Scope and Methodology

We conducted our work from January to July 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the evaluation to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We assessed whether EPA followed the requirements set forth in the Meth Act to determine the effectiveness of EPA's meth lab remediation guidelines and activities. We assessed EPA's internal controls for tracking legislative requirements, such as reports to Congress. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based upon our objectives.

We interviewed staff at EPA headquarters in Washington, DC, from the Office of Emergency Management (OEM), the Office of Resource Conservation and Recovery, and the Organizational Management and Integrity Staff, all of the Office of Solid Waste and Emergency Response (OSWER). We also interviewed headquarters staff from the Office of Research and Development (ORD), the Office of Congressional and Intergovernmental Relations, and the Office of Policy.

We reviewed a number of documents and considered a number of issues, including:

- The 2007 Meth Act and the current status of EPA requirements defined therein
- EPA documents prepared in response to the 2007 Meth Act
- State meth remediation guidelines and programs, as well as the Association of State and Territorial Solid Waste Management Officials research paper and state survey on meth remediation activities
- EPA's 2008 report to Congress, *RCRA Hazardous Waste Identification of Methamphetamine Production Process By-products*
- Funding mechanisms available for meth lab remediation activities
- Waste classifications and definitions for the household hazardous waste (HHW) exemption and disposal requirements for meth lab waste
- Health and environmental risks caused by meth labs
- Examples of mechanisms used to track former meth lab properties for public access
- Environmental justice and children's health issues associated with former meth labs

Prior Evaluation Coverage

The following Office of Inspector General (OIG) reports addressed issues related to the scope of our review:

- DEA OIG, *The Drug Enforcement Administration's Clandestine Drug Laboratory Cleanup Program*, Audit Report 10-29, June 2010. This report addressed DEA's hazardous waste cleanup and disposal activities for meth labs, including an evaluation of DEA's use of the Assets Forfeiture Fund to pay for clandestine drug laboratory cleanups. The DEA OIG found that the DEA had significant problems in its Clandestine Drug Laboratory Cleanup Program.
- U.S. Department of Justice OIG, *Office of Community Oriented Policing Services Methamphetamine Initiative*, Audit Report 06-16, March 2006. This OIG evaluated the administration and monitoring of grant programs under the Office of Community Oriented Policing Services Methamphetamine Initiative, which was established to combat meth production, distribution, and use, as well as pay for the proper removal and disposal of hazardous materials at clandestine meth laboratories. This OIG found that management and administrative controls over Meth Initiative grants were not adequate.

Chapter 2

EPA Has Not Completed All Meth Act Requirements Due to Lack of Funding

EPA has met some, but not all, of its requirements under the Meth Act. While EPA did publish an initial set of guidelines, *Voluntary Guidelines for Methamphetamine Laboratory Cleanup*, in August 2009, it has not yet developed plans to periodically update the guidelines as required. EPA did develop a multiyear research plan, but has delayed its full implementation. EPA convened an initial technology transfer conference, but has no plans to convene the next technology transfer conference within the required timeframe. Finally, although EPA satisfied the study of residual effects by performing a literature review of the health impacts of chemicals remaining in meth labs, it did not transmit the required report to Congress. Although the 2007 Meth Act authorized a total of \$3.5 million for EPA in fiscal years 2007 and 2008, this funding was never appropriated by Congress. EPA’s efforts to fund Meth Act initiatives with monies from other EPA programs could not match the amount authorized and needed. Further, EPA lacks internal controls to track compliance with legislative requirements, such as reports to Congress. Consequently, EPA’s remaining Meth Act obligations may not be met or may be delayed, and EPA may not achieve its goal of developing health-based cleanup guidance to reduce public health risks from meth labs that are not sufficiently cleaned up.

EPA Has Completed Some Requirements of the Meth Act

The Meth Act identified specific requirements for EPA. Table 1 lists these requirements, with a summary of their current status. A detailed description of each requirement and its status follows.

Table 1: EPA Meth Act requirements

Requirement	Current status
Develop voluntary meth lab remediation guidelines.	Complete.
Periodically update the guidelines.	Incomplete. EPA staff stated they have developed plans to update the guidelines.
Establish a meth lab research program.	Implementation delayed. Draft research plan developed, but full implementation delayed.
Convene a meth lab technology transfer conference every 3 years and submit a report to Congress summarizing these conferences.	Overdue. First conference was held. EPA staff stated they have developed plans for the next conference.
Complete a residual effects study to identify research needs related to the health impacts of chemicals remaining in meth labs, and submit a report to Congress on the findings.	Complete. But no report to Congress.

Source: OIG analysis of the Meth Act requirements and interviews with EPA staff.

Voluntary Remediation Guidelines

The Meth Act requires EPA, not later than 1 year after the date of enactment, to develop voluntary guidelines for the remediation of former meth labs. The Meth Act requires EPA to develop these guidelines in consultation with the National Institute of Standards and Technology (NIST), based on the best currently available scientific knowledge. The Meth Act also requires EPA to work with state and local governments and other relevant nonfederal agencies and organizations to promote and encourage the appropriate adoption of the voluntary guidelines.

EPA has satisfied this legislative requirement. The *Voluntary Guidelines for Methamphetamine Laboratory Cleanup* were published in August 2009. Members of state programs and universities contributed to the guidelines, and the guidelines were reviewed by other federal agencies, including NIST, as well as state and county organizations.

Periodic Update of the Guidelines

The Meth Act requires EPA to periodically update the voluntary guidelines in consultation with states and other interested parties. Updates to the guidelines should incorporate research findings and other new knowledge. The Meth Act does not specify the frequency of the periodic update.

EPA has not addressed this requirement. OEM staff stated that they have developed a plan to update the guidelines, but some delay can be expected due to resource constraints.

During our review, we identified some issues that should be evaluated for inclusion in updates to the voluntary guidelines:

- **Disposal of meth lab waste as HHW**—The Resource Conservation and Recovery Act allows disposal of HHW in municipal landfills. Some states explicitly prevent meth lab waste from being disposed as HHW, while other states do not. The guidelines do not define EPA’s position on the disposal of meth lab waste as HHW. Updated guidelines should define EPA’s position on disposal of meth lab waste as HHW.
- **Funding meth lab remediation through the Local Governments Reimbursement Program**—OEM manages the Local Governments Reimbursement Program, which can provide remediation reimbursement up to \$25,000 per incident. The updated guidelines could emphasize the availability of these funds for meth lab remediation, which may help in the cleanup of these sites.

- **Information on former meth lab sites**—Information on the location of former meth lab sites could provide helpful risk information to prospective occupants. DEA and some state programs identify these sites on their websites. The updated guidelines could identify these websites.
- **Environmental justice and children’s health**—Children may be the population at greatest risk when improperly cleaned up meth lab sites are reinhabited. Children’s health and environmental justice have been defined as priorities by the EPA Administrator and, accordingly, should be explicitly addressed in the updated guidelines.

Establishment of a Research Program

The Meth Act requires EPA to establish a program of research to support the development and revision of the voluntary guidelines. The Meth Act specifies,

Such research shall –

1. identify methamphetamine-laboratory-related chemicals of concern;
2. assess the types and levels of exposure to chemicals of concern identified, including routine and accidental exposures, that may present a significant risk of adverse biological effects, and the research necessary to better address biological effects and to minimize adverse human exposures;
3. evaluate the performance of various meth lab cleanup and remediation techniques; and
4. support other research priorities identified by the Administrator in consultation with states and other interested parties.

ORD drafted a research plan in March 2009 to address the issues identified in the Meth Act. However, full implementation of the draft plan has been delayed due to resource limitations. ORD has accomplished the following:

- Completed the draft *Methamphetamine Remediation Research Plan* in March 2009. This plan was subjected to external peer review, resulting in a draft Peer Review Report dated December 3, 2009.
- Finalized a memorandum of understanding with NIST in October 2009. The purpose of this memorandum of understanding is to delineate the roles and responsibilities of the ORD and NIST meth research programs.
- ORD staff stated they conducted a thorough search of scientific guidance and literature to assist in focusing limited resources on a high priority research project.
- Initiated research investigating the effectiveness of hydrogen peroxide as a remediation agent. To accomplish this research, ORD has completed the

necessary logistics—obtaining permission from the state of North Carolina for a meth lab test site, and from DEA to purchase meth from commercial vendors.

Technology Transfer Conference

The Meth Act directs EPA to convene a technology transfer conference not later than 90 days after the date of enactment of the Meth Act, and at least every 3 years thereafter. This conference should include appropriate state agencies as well as individuals or organizations involved in research and other activities directly related to the environmental or biological impacts of former meth labs. The Meth Act further specifies that the conference should be a forum for EPA to provide information on the voluntary guidelines and the research program, and for nonfederal participants to provide information on their problems, needs, and experiences with the guidelines. EPA is required to provide a summary report of the proceedings to Congress not more than 3 months after each conference.

EPA has not completed this requirement. OEM staff stated they satisfied the requirement for the initial conference by participating in the 2008 National Alliance for Model State Drug Laws conference. EPA did not transmit a report to Congress summarizing the proceedings. However, EPA staff stated that in 2010 they provided Congressional staff with links to the conference proceedings. OEM staff stated that they have developed plans to convene another national meeting/conference. EPA stated that it now has plans to convene a national meeting in lieu of a technology transfer conference. Staff also stated that planning for the conference was limited by resource constraints. The first of the triennial conferences should have been scheduled for spring 2011 and is therefore overdue.

Residual Effects Study

The Meth Act requires EPA to enter into an arrangement with the National Academy of Sciences for a study of the status and quality of research on the residual effects of meth labs. This arrangement is required not more than 6 months after enactment of the Meth Act. The purpose of the study is to identify research gaps, recommend an agenda for the research program, and focus on the need for research on the impacts on (1) residents, with particular emphasis on biological impacts on children, and (2) first responders. The Meth Act further requires EPA to transmit to Congress a report on how EPA will use the results of the study to carry out all meth-related activities. This report is required not later than 3 months after completion of the study.

EPA has completed the intent of this requirement, but did not report to Congress. Without a funding appropriation for an arrangement with the National Academy of Sciences, ORD addressed the residual effects study through a literature review. ORD completed the review in 2010, but did not transmit a report to Congress. ORD staff stated they provided a copy of its draft research plan to Congress in

2009, and in 2010 ORD staff updated congressional staff on the status of the residual effect study.

Resource Constraints Limiting EPA's Efforts to Meet Meth Act Requirements

The 2007 Meth Act authorized a total of \$3.5 million for EPA in fiscal years 2007 and 2008. However, this funding was never appropriated by Congress. Without adequate funding, all Meth Act goals will not be met or will be delayed. EPA has not informed Congress as to which requirements it will not be able to meet.

OEM and ORD managers have indicated their commitment to complete EPA's Meth Act requirements. EPA estimates that it has directed more than \$1.1 million from other funding sources to implement the requirements. OEM spent approximately \$339,000 from the Superfund budget from 2008 through 2010 to complete the voluntary guidelines, participate in interagency workgroups, gather input from state and local government officials, and provide first-responder training. ORD spent an additional \$816,000 from the Science and Technology appropriation from 2008 through January 2011 to support the development of the guidelines and conduct research activities required by the Meth Act. However, despite these efforts by OEM and ORD, without its authorized funding, EPA will not complete or will delay completion of the Meth Act requirements so that it can address funded Agency priorities.

Although EPA's guidelines describe a remediation process and best practices for cleanup, states have identified the need for health-based cleanup guidance. ORD expects to continue its research activities on the use of hydrogen peroxide in meth lab remediation in the near future. However, additional research that would support the development of voluntary health-based cleanup guidance has been delayed.

EPA Has No Controls to Identify and Track Legislative Requirements

EPA staff were unaware that the legislative requirements of the Meth Act that we identified as overdue were, in fact, overdue. We discussed this issue with staff from the EPA Office of Congressional and Intergovernmental Relations and the Office of Policy, who confirmed that they have no internal controls to identify or track the status of EPA's legislative requirements. Further, they stated that tracking and completing the requirements were the responsibility of the EPA program offices. EPA staff also stated that Congress has never asked EPA for these reports.

We discussed the identification and tracking of EPA legislative requirements with staff from the relevant program offices—OSWER and ORD. Neither of these program offices have controls in place to identify and track all legislative

requirements, although an ORD division director stated that ORD tracks requirements that have appropriated funds.

Conclusions

EPA will continue to be delayed or prevented from fulfilling all of its obligations under the 2007 Meth Act due to a lack of congressional appropriation of authorized funds, limited EPA funding, and a lack of internal controls for tracking legislative requirements. EPA has not communicated with Congress to explain the effects the lack of funding has had on its ability to complete the Meth Act's requirements. Although EPA published voluntary remediation guidelines and initiated a research program, it has not completed other Meth Act requirements. Further research is needed if EPA is to update its guidelines with health-based criteria that can help states and local governments identify the point at which former meth labs are safe to inhabit again. To make informed decisions, Congress needs to be aware of the challenges created by its lack of funding, and of the impacts to other program activities caused by redirection of funds to meet Meth Act requirements.

Recommendations

We recommend that the Assistant Administrator for Solid Waste and Emergency Response and the Assistant Administrator for Research and Development:

1. Establish a plan to implement the Meth Act requirements and inform Congress which requirements will not be met or will be delayed.
2. Address the following issues in the next update to the voluntary remediation guidelines:
 - a. Clarification of whether meth lab waste can legally be disposed of as HHW.
 - b. Availability of EPA Local Governments Reimbursement funding to pay for meth lab cleanup.
 - c. Information on websites containing lists of former meth lab sites.
 - d. Consideration of children's health and environmental justice.

We recommend that the Associate Administrator for Congressional and Intergovernmental Relations and the Associate Administrator for Policy:

3. Develop internal controls to ensure that legislative requirements are identified and tracked, and that their status is reported to Congress as required.

Agency Response and OIG Evaluation

OSWER provided a coordinated Agency response. We reviewed the Agency's comments and made changes to the report as appropriate. Appendix A provides the full text of OSWER's response and the OIG's comments on that response.

The Agency agreed with all recommendations. EPA suggested a change to recommendation 2, which was accepted. In its 90-day response to this report, EPA should include a detailed corrective action plan with estimated milestone dates for each recommendation. The recommendations are listed as unresolved because planned completion dates were not provided.

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
1	12	Establish a plan to implement the Meth Act requirements and inform Congress which requirements will not be met or will be delayed.	U	Assistant Administrator for Solid Waste and Emergency Response and Assistant Administrator for Research and Development			
2	12	Address the following issues in the next update to the voluntary remediation guidelines: <ul style="list-style-type: none"> a. Clarification of whether meth lab waste can legally be disposed of as HHW. b. Availability of EPA Local Governments Reimbursement funding to pay for meth lab cleanup. c. Information on websites containing lists of former meth lab sites. d. Consideration of children's health and environmental justice. 	U	Assistant Administrator for Solid Waste and Emergency Response and Assistant Administrator for Research and Development			
3	12	Develop internal controls to ensure that legislative requirements are identified and tracked, and that their status is reported to Congress as required.	U	Associate Administrator for Congressional and Intergovernmental Relations and Associate Administrator for Policy			

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

Agency Response to Draft Report and OIG Comment

(Received September 2, 2011)

MEMORANDUM

SUBJECT: Environmental Protection Agency's (EPA) Response to OIG's Draft Report: "EPA Progress on the 2007 Methamphetamine Remediation Research Act," Project No. OPE-FY11-0007

FROM: Mathy Stanislaus
Assistant Administrator
Office of Solid Waste and Emergency Response

Kevin Teichman
Deputy Assistant Administrator for Science
Office of Research and Development

Arvin Ganesan
Associate Administrator for Congressional and Intergovernmental Relations

TO: Wade T. Najjum
Assistant Inspector General for Program Evaluation

We appreciate the opportunity to comment on the Office of Inspector General (OIG) draft evaluation report: "EPA Progress on the 2007 Methamphetamine Remediation Research Act," Project No. OPE-FY11-0007, dated July 25, 2011.

As you know, EPA has been involved, through many offices, in the federal response to former meth labs, as well as implementation of the requirements of the Methamphetamine Remediation Research Act of 2007 (Meth Act). In addition to the voluntary remediation guidelines developed by EPA's Office of Emergency Management (OEM), the Agency's Local Governmental Reimbursement Program has reimbursed a number of local governments for the cleanup of former meth labs. We have also trained more than 1200 first responders on Awareness and Operations at former meth labs. Other activities include EPA's submission of the 2011 report to Congress entitled "RCRA Hazardous Waste Identification of Methamphetamine Production Process By-products" which identified by-products of the meth production process and whether they were considered hazardous waste. Additionally, in consultation with leading researchers in the meth lab remediation arena, the Office of Research and Development (ORD) developed a research strategy to address Meth Act

requirements. While activities required under the 2007 Meth Act remain unfunded, EPA has been providing ongoing assistance to state and local governments in their response to the cleanup of former meth labs.

Our response to the draft OIG recommendations is below. Our specific comments are attached, and address concerns that require attention and consideration.

Recommendations

We recommend that the Assistant Administrator for Solid Waste and Emergency Response and the Assistant Administrator for Research and Development:

1. *Establish a plan to implement the Meth Act requirements and inform Congress which requirements will not be met or will be delayed.*

While the Agency did not receive Congressional appropriations to implement the Act's requirements, we are in the process of establishing a final plan to implement the requirements of the Meth Act. Working with the Office of Congressional and Intergovernmental Relations (OCIR), we will continue to keep interested Congressional staff informed of our progress, including the anticipated dates that requirements will be addressed.

OIG Response: EPA agreed with this recommendation. The Agency stated that it is in the process of establishing a final plan to implement the Meth Act requirements, and will keep interested congressional staff informed of progress. The intent of our recommendation is to inform the appropriate congressional staff, which could be different than those interested. This recommendation is listed as unresolved because planned completion dates were not provided. In its 90-day response to this report, EPA should include a detailed corrective action plan with estimated milestone dates to implement the requirements of the Meth Act.

2. *Address the following issues in the next update to the voluntary remediation guidelines:*
 - a. *Definition of meth lab waste as Household Hazardous Waste (HHW).*
 - b. *Availability of EPA Local Governments Reimbursement funding to pay for meth lab cleanup.*
 - c. *Information on websites containing lists of former meth lab sites.*
 - d. *Consideration of children's health and environmental justice.*

OEM will take into consideration a. – d. in this recommendation when undertaking an update to the guidelines. OEM will coordinate with ORCR in the definition of HHW.

OIG Response: EPA agreed with this recommendation. This recommendation is listed as unresolved because planned completion dates were not provided. In its 90-day response to this report, EPA should include a detailed corrective action plan with estimated milestone dates for the next update of the guidelines.

We recommend that the Associate Administrator for Congressional and Intergovernmental Relations and the Associate Administrator for Policy:

3. *Develop internal controls to ensure that legislative requirements are identified and tracked, and that their status is reported to Congress as required.*

EPA is in the process of developing a system to track Reports to Congress to ensure that legislative requirements are met.

OIG Response: EPA agreed with this recommendation. The Agency stated that it is in the process of developing a system to track Reports to Congress and ensure legislative requirements are met. This recommendation is listed as unresolved because planned completion dates were not provided. In its 90-day response to this report, EPA should include a detailed corrective action plan with estimated milestone dates for the implementation of the tracking system.

If you have any questions, please have your staff contact Johnsie Webster at (202) 566-1912.

Attachment

cc: Arthur Elkins
Carolyn Copper
Steve Hanna
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Fred Hauchman
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Norman Adkins
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Dana Tulis
Gilberto Irizarry
Lisa Boynton
Jim Michaels
Carolyn Levine

Attachment

Comments

1. On page 2, your draft report states:

“If former meth labs have not been decontaminated properly, chronic exposure to residual, dangerous, and hidden chemicals can cause serious health problems, such as cancer; damage to the brain, liver, and kidneys; birth defects; and reproductive problems such as miscarriages.”

Please cite the supporting studies used to make these statements or revise the statement to focus on supportable adverse health effects.

OIG Response: Health effects are described in the Washington State Department of Health Meth Lab fact sheet, currently available at <http://www.doh.wa.gov/ehp/cdl/methlab.htm>.

2. On page 2, your draft report states:

“After a meth lab has been seized and processed for evidence, law enforcement is responsible for the removal and disposal of the hazardous waste.”

Please add the word “bulk” before “hazardous.”

OIG Response: “Bulk” added as suggested.

3. On page 2 and 3, your draft report states: *“In most states, the Drug Enforcement Administration (DEA) has funded the removal of chemicals, drugs, and the apparatus used to manufacture the drugs, but DEA does not remediate residual contamination at these sites.”*

Please replace the word “remediate” with the word “fund.” Add the word “remediation” after the word “contamination.”

OIG Response: No change - wording is consistent with DEA statements in its 2005 *Guidelines for Law Enforcement for the Cleanup of Clandestine Drug Laboratories*.

4. On page 4, your draft report states:

“The purpose of the Meth Act is ‘to establish a Federal research program to support the development of voluntary guidelines to help states address the residual consequences of former methamphetamine laboratories’.”

The text quoted in the draft report is not taken directly from the Methamphetamine Act. Please use language directly from the Act or remove the quotation marks.

OIG Response: The statement is a direct quote from page 2 of the *Methamphetamine Research Act of 2007*, Report 110-8, identified as a report to accompany H.R. 365, February 7, 2007. A direct link to this document may be found at EPA's *Voluntary Guidelines for Methamphetamine Laboratory Cleanup* website, at <http://www.epa.gov/oem/methlab.htm>.

5. On page 4, your draft report states:

“The Meth Act also requires EPA to develop a research program and submit a report to Congress on the research results, convene regular conferences for sharing information and submit a report to Congress on feedback obtained during the conferences, and periodically update the guidelines.”

The research program section (Section 4) does not direct EPA to submit any reports, so please strike the phrase “submit a report to Congress on the research results.”

OIG Response: Section 6 of the Act (public law 110-143, December 21, 2007) specifies that "the Administrator shall transmit to Congress a report on how the Administrator will use the results of the study to carry out the activities described in sections 3 and 4." The sentence has been modified to clarify the report requirement.

6. General concerning Chapter 2, section entitled “EPA Has Completed Some Requirements of the Meth Act”, information regarding the “Establishment of a Research Program.”

Please add the following accomplishment: EPA conducted a thorough search of scientific guidance and literature to assist in focusing limited resources on a high priority research project.

OIG Response: New bullet added on page 9.

7. On page 7, your draft report states:

“EPA did develop a multiyear research plan, but has delayed its implementation.”

Insert the word “full” between “its” and “implementation.”

OIG Response: “Full” added as suggested, and also added to table on page 7 under *Current Status* column, *Establish a meth lab research program*.

8. On page 7, your draft report states:

“EPA also has no plans to convene the technology transfer conference within the required timeframe.”

EPA has convened one technology transfer conference and this is mentioned later in your report on page 8. Revise this sentence to note that one conference has been held. Please make the statements related to conferences should be consistent throughout the document. Also add that EPA does have plans to convene a national meeting in lieu of a technology transfer conference.

OIG Response: Sentence revised to read “EPA convened an initial technology transfer conference, but has no plans to convene the next technology transfer conference within the required timeframe.” Sentence added on page 10 as requested, “EPA stated that it now has plans to convene a national meeting in lieu of a technology transfer conference.”

9. On page 8, your report states:

“EPA has not yet developed plans to update the guidelines due to resource constraints.”

EPA has developed a plan to update the guidelines. However, some delay in updating the guidelines can be expected due to resource constraints.

OIG Response: At the start of our review, EPA did not yet have any plans for update of the guidelines, but later indicated that they had started discussions to develop the plan. We have updated the text to reflect this most recent plan development by EPA. The sentence has been revised to “OEM staff stated that they have developed a plan to update the guidelines, but some delay can be expected due to resource constraints.”

10. On page 8, your report states:

“First conference was held. No plans to convene the next conference due to resource constraints.”

As EPA stated in the investigation stage of the process, while resource constraints could delay a conference, we have plans developed to convene another national meeting/conference. Please add language to this effect in the report. This information should be consistent throughout the report.

OIG Response: At the start of our review, EPA did not yet have any plans for convening the next conference, but later indicated that they had started discussions for future conferences. We have updated the text to reflect this most recent plan development by EPA. The sentence has been revised to “OEM staff stated that they have developed plans to convene another national meeting/conference.”

11. On page 9, your draft report states:

“However, the implementation of the draft plan has been delayed due to resource limitations.”

Please replace the word “the” with the word “full.”

OIG Response: Sentence modified as suggested.

12. On page 9, your draft report states:

“Completed the draft Methamphetamine Remediation Research Plan in March 2009. This plan was subjected to external peer review.”

Please insert the words “resulting in a Peer Review Report dated December 3, 2009” at the end of the sentence.

OIG Response: Sentence modified as suggested.

13. On page 9, your draft report states:

“Finalized a memorandum of understanding with NIST. The purpose of this memorandum of understanding is to delineate the roles and responsibilities of the ORD and NIST meth research programs.”

Please insert the words “in October 2009” at the end of the first sentence.

OIG Response: Sentence modified as suggested.

14. On page 10, your draft report states:

“EPA has completed the intent of this requirement, but did not report to Congress. Without a funding appropriation for an arrangement with the National Academy of Sciences, ORD addressed the residual effects study through a literature review. ORD completed the review in 2010, but did not transmit a report to Congress. EPA staff stated that in 2010 they updated Congressional staff on the status of the residual effect study and provided a copy of ORD's draft research plan.”

EPA submitted a research plan to Congress in March 2009. We have attached the OCIR transmittal and Congressional staff acknowledgement of receipt to demonstrate that this occurred. Please change the language in your draft report to reflect this information.

OIG Response: Last sentence on page 10 modified to “ORD staff stated they provided a copy of its draft research plan to Congress in 2009, and in 2010 ORD staff updated congressional staff on the status of the residual effect study.”

15. On page 12, recommendation 2.a. you state: “definition of meth lab waste as HHW.”

As written, the recommendation appears to instruct EPA to define meth waste as a HHW. As we informed the IG during their investigation, EPA’s household hazardous waste exemption covers waste from “households.” We do not interpret the exemption to cover waste from meth labs. We believe the recommendation would be better expressed with the following wording: “Clarify whether meth lab waste can legally be disposed of as household hazardous waste.” This language is consistent with the language found in the “At A Glance” portion of the draft report.

OIG Response: Sentence changed to “Clarification of whether meth lab waste can legally be disposed of as HHW.”

Distribution

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