**Statement**
**Before the House Energy and Commerce**
**Subcommittee on Environment and**
**Hazardous Materials**
**United States House of Representatives**

# ATSDR's Emergency Response Activities and Hurricane Katrina Efforts


*Statement of*

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**For Release on Delivery**
**Expected at 1:30pm on**
**Thursday, September 29, 2005**

## INTRODUCTION

Good afternoon Mr. Chairman and members of the Subcommittee. My name is Dr. Henry Falk and I am the Director of the Coordinating Center for Environmental Health and Injury Prevention at the Centers for Disease Control and Prevention (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR is an independent agency within the Department of Health and Human Services (HHS), and a sister agency to the CDC. Its relationship with the CDC's National Center for Environmental Health (NCEH) is especially strong, because the Director of ATSDR, Dr. Howard Frumkin, also directs NCEH. ATSDR also partners extensively with the United States Environmental Protection Agency (EPA).

This afternoon I will describe ATSDR's ongoing contribution to the Hurricane Katrina response, based on its unique expertise and experience in responding to emergency releases of hazardous substances under Superfund.

ATSDR was established under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), to assess and prevent or limit potential exposures to hazardous substances and associated adverse health effects. Each year ATSDR conducts assessments of potential exposures to hazardous substances, and potential associated health impacts, at hundreds of sites around the Country.

Frequently these assessments are conducted in connection with an emergency response, where ATSDR is called on to support response work in communities impacted by acute releases of toxic chemicals. Through 25 years of experience in emergency response under Superfund the Agency has developed a workforce with experience and expertise that is directly applicable to assessing potential exposures and human health threats from exposure to contaminated floodwater, soil and sediment in the wake of a natural disaster.

The wealth of skills in our multidisciplinary workforce -- from physicians to toxicologists to epidemiologists to environmental engineers to health education specialists and risk communicators -- coupled with the location of ATSDR field staff in EPA regional offices around the country, allow ATSDR to mobilize quickly and coordinate effectively with HHS and CDC and other agencies within the Department, and with EPA and other government agencies, in a strategic response to emergency situations. ATSDR staff in the EPA regional offices work collaboratively with EPA and state partners to prepare for and respond to chemical and other public health emergencies.

ATSDR performs emergency response activities under the National Response Plan. ATSDR collaborates extensively with other federal partners as part of the Emergency Support Functions (ESF) dedicated to public health and medical services as well as oil and hazardous materials responses. These correspond to ESF 8 and 10, respectively.

## ATSDR RESPONSE TO HURRICANE KATRINA

Working in close coordination with HHS and CDC, as well as with EPA, ATSDR is providing critical expertise, resources and assistance to the multi-level public health response to Hurricane Katrina. The discussion below describes three primary components of ATSDR's ongoing contribution to the response: (1) Participation in task forces and work groups established by the Administration to assess environmental health needs and related policy issues; (2) Playing an integral role in the CDC Emergency Operations Center, and deploying staff to emergency operations centers in HHS, FEMA and EPA; and (3) Working in the field to assess the potential for exposure to hazardous substances that may adversely impact human health.

(1) Environmental Health Needs & Habitability Assessment Joint Task Force of CDC/ATSDR and EPA, and the Environmental Impacts and Cleanups Working Group of the White House Hurricane Katrina Task Force

One unique contribution by CDC/ATSDR to the Hurricane Katrina response was leading a joint CDC/ATSDR and EPA task force that developed an initial assessment report identifying the overarching environmental health and infrastructure issues related to reinhabiting New Orleans.

At the request of Secretary Michael Leavitt of HHS and Administrator Steve Johnson of EPA, CDC/ATSDR and EPA established the joint taskforce to conduct the assessment. I had the privilege of serving as Chair of that joint taskforce, which was made of a multidisciplinary and multiagency team with expertise in environmental health science, environmental engineering, medicine, health and risk communication, and administration/logistics. The initial eight-member team consisted of personnel from CDC/ATSDR and EPA.

The team began its work on September 6, 2005, and completed it on September 12, 2005. Our work was guided by six key questions:

1. What are the core environmental health issues to be addressed?
2. Which agencies and organizations at the federal, state, or local level are responsible for, or involved in, the various environmental health issues?
3. What progress has been made and what challenges exist?
4. What is the timetable to address these environmental health issues?
5. What resources exist or need to be brought to bear to address these environmental health issues?
6. What are the key milestones and endpoints that define success?

Initially we made contacts with CDC leadership on the ground in New Orleans, and with other key federal, state and local public health and environment leadership. In addition, we completed air and surface level tours of New Orleans to see firsthand the impact of Hurricane Katrina. In conducting the assessment,

CDC/ATSDR and EPA collaborated extensively with a diverse group of federal, state and local officials with expertise in public health and the environment, including the New Orleans City Public Health Department, the Louisiana Department of Health and Hospitals, and the Louisiana Department of Environmental Quality.

The taskforce identified 13 environmental health and public health infrastructure issues to address. This initial assessment includes drinking water, wastewater, solid waste/debris, sediments/soil contamination (toxic chemicals), power, natural gas, housing, removal of flood water, occupational safety and health/public security, vector/rodent/animal control, road conditions, underground storage tanks (e.g., gasoline), and food safety. The report also identifies a number of barriers to overcome and critical decisions to make prior to reinhabiting New Orleans. The mayor and city officials who will make these decisions will be able to draw on the expertise of the participants in the Joint Task Force and other partners. Dr. Howard Frumkin, the new Director of ATSDR, was recently deployed to Louisiana to continue the Agency's work.

ATSDR also is participating actively in the Working Group on Environmental Impacts and Cleanup, which is part of the White House Task Force on Hurricane Katrina. The Deputy Secretary of HHS and the Deputy Administrator of EPA co-chair this working group. I have served as co-chair of the New Orleans Subcommittee of this group, and other ATSDR and CDC staff are members of

the Guidelines, Sampling, and Communications Subcommittees. The Working Group is particularly focused on policy issues related to Environmental Impacts and Cleanup, and has served as an important locus for inter-Agency discussions. The Environmental Health Needs & Habitability Assessment Joint Taskforce that I headed in Baton Rouge has now been consolidated within the New Orleans Zip Code Assessment Group; this interagency group is providing technical input by neighborhood or zip code on environmental issues related to the return of residents to New Orleans.

(2) Emergency Operations Center

ATSDR leadership and staff serve as incident managers; provide GIS mapping and services, tools we regularly use to identify areas of potential or actual chemical exposure; and subject matter expertise for public health and risk communication. For example, Dr. Tom Sinks, Acting Deputy Director of ATSDR, served as CDC's public health lead in the CDC Emergency Operations Center in Atlanta during the initial phases of the hurricane response. Captain Scott Deitchman, USPHS, M.D., ATSDR's Associate Director for Terrorism Preparedness and Emergency Response, has taken over in this capacity in the on-going CDC/ATSDR response.

As of September 23, 2005, at least 55 ATSDR staff have been deployed to Hurricane Katrina response activities in the CDC Emergency Operations Center

or into field operations including the FEMA Regional Resource Command Centers and the HHS Secretary's Emergency Response Team. As an HHS agency, ATSDR has deployed many Commissioned Officers through the Office of Force Readiness and Deployment/Commissioned Corps Readiness Force.

Also, currently ATSDR regional representatives are located within the EPA Headquarters Emergency Operations Center (EOC), Washington, D.C., EPA Region IV EOC in Gulfport, Mississippi, EPA Region IV EOC in Atlanta, Georgia, Region VI Joint Field Office (JFO), Baton Rouge, Louisiana and in the EPA Region VI EOC, Dallas, Texas.

In addition, a significant number of staff at ATSDR headquarters in Atlanta have been supporting a variety of Hurricane Katrina response activities and back up those deployed into the field.

(3) Deployments to the field to assess potential for exposure to hazardous substances with adverse health impacts

A significant number of CDC/ATSDR staff members have been deployed into the field or serve as subject matter experts in the areas of toxicology, sanitation, food and water safety, vector control issues pertaining to aerial spraying of pesticides for mosquito abatement, evacuation center operations, emergency response,

epidemiology, environmental engineering and public health infrastructure, community relations, public affairs, and health education.

In addition, ATSDR regional representatives in Mississippi and Louisiana are in the field with the EPA on scene coordinators investigating chemical spills and providing technical assistance as needed to resolve questions about the potential for exposure to hazardous chemicals, and to assist the CDC senior management official. ATSDR has been working with EPA to assess the condition of Superfund sites and other industrial sites in the affected areas, and will continue to participate in more detailed assessments in the future.

In the Joint Field Office in Baton Rouge, ATSDR staff is providing support to EPA field deployed staff, serving on the debris removal and health and safety committees formed by FEMA, and assisting the environmental unit of the Louisiana Department of Health and Hospitals. In Texas, ATSDR regional representatives are coordinating with EPA at the Dallas EOC on sampling and chemical release issues.

ATSDR also is working closely with CDC and the New Orleans Public Health Department to re-establish basic public health services to the residents of New Orleans at temporary facilities.

ATSDR will remain in close contact with federal, state, and local partners to ensure that the public health expertise of this Agency most effectively serves the needs of the people and the communities in the affected areas. ATSDR will continue to provide technical assistance on issues related to potential exposure to hazardous substances by the public and response workers. We anticipate this need will continue for at least several months. Additionally, ATSDR will continue to address issues related to the assessment of potential health effects resulting from exposure to hazardous substances in the environment.

Amidst the hurricane response work, ATSDR continues to focus resources on priority Superfund activities. ATSDR is continuing to pursue these activities, but recognizes that there may be some delays as a result of on-going deployments and hurricane-related support. ATSDR is taking steps to minimize disruption to other parts of its program.

Thank you for the opportunity to talk to you today about ATSDR's participation in the response to Hurricane Katrina.

At this time, I welcome your questions.

http://www.bt.cdc.gov/disasters/hurricanes/katrina/pdf/envassessment.pdf

# Environmental Health Needs and Habitability Assessment

**Joint Taskforce**
**Centers for Disease Control and Prevention &**
**U.S. Environmental Protection Agency**
**September 17, 2005**

## Executive Summary

Hurricane Katrina made landfall on Monday, August 29, 2005, as a category 4 hurricane and passed within 10 to 15 miles of New Orleans, Louisiana. The storm brought heavy winds and rain to the city, and the damage breached several levees protecting New Orleans from the water of Lake Pontchartrain. The levee breaches flooded up to 80% of the city with water reaching a depth of 25 feet in some places.

Among the wide-scale impacts of Hurricane Katrina, the storm caused significant loss of life and disrupted power, natural gas, water, and sewage treatment, road safety, and other essential services to the city.

Early in the disaster response and recovery, federal, state, and local elected officials and public health and environmental leaders recognized the significant role of environmental health in the post-hurricane rebuilding of New Orleans.

At the request of the Secretary Michael Leavitt of the Department of Health and Human Services (DHHS) and Administrator Steve Johnson of the U.S. Environmental Protection Agency (EPA), the Director of the Centers for Disease Control and Prevention (CDC), Dr. Julie Louise Gerberding, created the Environmental Health Needs Assessment and Habitability Taskforce (EH-NAHT). The taskforce was charged with identifying the overarching environmental health issues faced by New Orleans to reinhabit the city.

The EH-NAHT collaborated extensively with a diverse group of federal, state, and local partners, including the New Orleans City Public Health Department, the Louisiana Department of Health and Hospitals (LADHH), and Louisiana Department of Environmental Quality (LDEQ), Federal Emergency Management Agency (FEMA), and U.S. Army Corps of Engineers (USACE).

The team was guided by the following questions:

1. What are the core or fundamental environmental health issues to be addressed;

2. Which agencies and organizations at the federal, state, or local level are responsible for, or involved in, the various environmental health issues;
3. What progress has been made and what challenges exist;
4. What is the timetable to address these environmental health issues;
5. What resources exist or need to be brought to bear to address these environmental health issues; andWhat are the key milestones and endpoints that define success.

The team identified 13 environmental health issues and supporting infrastructure to address. This initial assessment included drinking water, wastewater, solid waste/debris, sediments/soil contamination (toxic chemicals), power, natural gas, housing, unwatering/flood water, occupational safety and health/public security, vector/rodent/animal control, road conditions, underground storage tanks (e.g., gasoline), and food safety.

After the initial assessment, the EH-NAHT categorized these issues by increasing time and complexity to full restoration of services (Level 4, most complex and requiring the most time to restoration). Part of the complexity relates to how specific and explicit the criteria for the end points are for each function.

| Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|
| • Unwatering<br>• Power<br>• Natural Gas<br>• Vector/Rodent/Animal Control<br>• Underground storage tanks (e.g., gasoline)<br>• Food Safety | • Drinking Water<br>• Wastewater<br>• Road Conditions | • Solid Waste/Debris<br>• Sediments/Soil Contamination (Toxic Chemicals) | • Housing |

Occupational safety and health as well as public security was identified as cross-cutting all the other areas.

Long-term solutions to these many issues are critical to allow resumption of normal life in New Orleans and to prevent reoccurrence of such an event in this area.

The EH-NAHT has the following conclusions based upon our initial assessment:

- **A complex array of environmental health problems exists in New Orleans.**
  The most striking feature of the disaster is the array of key environmental

health and infrastructure factors affected all at once. All key environmental health and related services are being reestablished, and this work needs to be done in a very coordinated and well-planned way.

- **The unwatering of New Orleans is a critical first step.**
  The unwatering is an essential first step to allow access for assessment and repair of all basic services and habitability barriers. Some significant assessments are not yet started because of the continued unwatering, which could take an additional 4 weeks to complete. These assessments may impact the timing, resources and scope of the needed repairs/replacements.

- **It is important to bring infrastructure systems in New Orleans back on line.**
  Different timeframes are necessary to bring the various infrastructure systems (e.g., drinking water, wastewater, power, and natural gas) on line with varying degrees of capabilities. Restoring drinking water systems and wastewater treatment systems needs a planned approach, but full restoration will be delayed by the many breaks in the distribution and collection systems and by the need for upgrade and repairs in older systems. Unanticipated delays must be kept in mind in the process of unwatering and the scope and complexity of the interdependent systems.

- **The cleanup of debris (including housing debris) and potentially contaminated**
  **soil/sediment in New Orleans are rate-limiting factors.** The timeline for debris treatment, disposal, containment, and transport, as well as for the testing of potentially contaminated soils/sediment, will slow or accelerate the rate at which the city can be reinhabited. The potential contamination of soils/sediments has great uncertainty attached to it. A comprehensive sampling and testing of a broad array of toxic chemicals will be required to identify any widespread contamination or selected hot spots and to ensure the safety of returning inhabitants or for redevelopment.

- **Intense interest will exist to reinhabit New Orleans.**
  Significant pressure will occur to allow rehabitation. A single decision will not be made to reinhabit the whole city at one time. Rehabitation is expected to be done neighborhood by neighborhood IF it is possible to prevent access to the closed areas of the city. Worker safety and health as well as public safety and security are mandatory enablers for all of the activities.

- **It is critical to address the housing issues in New Orleans**.
  Housing is likely the most critical issue in reinhabiting the city because of the

- Large percentage of city housing that was flooded and is not likely to be viable;
- Intense personal connection an individual has to their home;
- Legal, jurisdictional, and procedural issues involved in the decision-making process;
- Large proportion of the city population that is displaced. Some residents are a significant distance away from New Orleans or may not intend to return;
- Difficulty in establishing and maintaining communications with the widely dispersed population;
- Challenge of identifying acceptable methods and resources for assessing such a large number of homes; and the
- Scope of the demolition process and safe and efficient removal of debris.

- **An immediate need exists to allow temporary or transient entry of recovery workers, residents, and business owners.** In the immediate period, explicit guidelines are being developed for safe entry of recovery workers to New Orleans, for brief entry by residential and business owners to retrieve key household or business items in neighborhoods of the city where it is safe to do so, and for reinhabiting the least impacted areas of the city where key environmental health and infrastructure conditions are met.

- **Ensuring worker safety and health and public safety and security are essential.**
  Public security and intensive efforts to achieve worker safety and health for the very large recovery workforce, working often in extraordinarily difficult and challenging conditions, is essential to rebuilding New Orleans.

- **The criteria for short-term and long-term return to New Orleans should be tailored to the timeframe and population.** Different criteria will be necessary for the short-term and long-term return to the city e.g., use of bottled water in the absence of potable water will be acceptable for recovery workers and select others on a limited short-term basis versus the general population, which includes children and the elderly over the long-term).

The EH-NAHT has the following recommendations based on our initial assessment:

- **It is important to involve state, local, and other stakeholders in decision-making.**
  All the issues in reinhabiting New Orleans are interwoven, complex, and cannot be addressed individually. It is extremely important that decisions

are made involving state, local, and federal staff as well as all other stakeholders, particularly the local population.

- **Developing a shared vision for the rebuilding (including infrastructure) is critical.**
  Because of the magnitude of the devastation, it is critical that decisions be guided by a clear, shared vision by all stakeholders of what the rebuilt New Orleans should be. As devastating as this event is, the vision of the future of the city is critical in guiding development for such a widely impacted area.

- **Federal, state, and local decision-makers should explore processes used by other areas in devastating circumstances.**
  New Orleans should draw upon the experiences of other localities that addressed devastating events—areas such as New York (World Trade Center), Florida (repeated hurricanes), and San Francisco (earthquake). Their experiences and solutions might serve as examples to New Orleans on processes that can be used for creating a broad vision for redevelopment, for identifying key decisions and strategies, and for involving all stakeholders (including the displaced population) in the broad-impact, critical decisions that will have to be made.

- **Maintaining collaboration with involved agencies is essential.**
  Maintain, through FEMA and other mechanisms, broad collaboration and a true sense of partnership in developing a very coordinated and sustained effort to recovery.

- **Attending to the housing decisions is critical.**
  A number of critical decisions need to be made about housing. These decisions include
    - Developing explicit guidelines for entry by recovery workers, for brief periods of entry by residents and business owners to retrieve essential belongings, and for reinhabiting relatively undamaged neighborhoods of the city.
    - Creating a neighborhood-by-neighborhood approach for assessing housing, cleanup/demolition, and reinhabiting/rebuilding.
    - Selecting method(s) for assessing large amounts of damaged housing, with rapid methods necessary for severely damaged housing.
    - Resolving legal, administrative, and procedural issues.
    - Fostering and maintaining ongoing contact with the large displaced population—particularly for any actions that might require owner authorization.

- **It is necessary to maintain a systems-level perspective.**
  Monitoring the progress in all key areas of environmental health and

infrastructure is important because reinhabiting New Orleans depends on success in all areas. This initial assessment identified 13 key areas that need to be tracked.

- **Resolving potential toxic chemical exposures is important.**
  It is important to resolve the questions about the potential for toxic chemical exposure as quickly as possible. This issue has the widest degree of uncertainty.

- **Officials should ensure public safety and security and worker health and safety.**
  Maintain a central focus on public safety and recovery worker health and safety throughout the rebuilding of New Orleans.

- **Engage and communicate with the displaced population.**
  Develop a mechanism to regularly and substantively engage and communicate with the displaced population to provide a progress update on city-wide activities as well as activities related to neighborhoods and individual homes. This work could involve the use of GIS, the Internet, and other innovative strategies.

- **Maintain a broad vision on issues affecting the rehabitation of the city.**
  This initial assessment from the EH-NAHT focused on the immediate issues related to reinhabiting the city—primarily those issues that affect essential systems for safe living. As these immediate issues are dealt with, it will be important to focus on issues related to quality of life and social well-being and how they are integrated into a redevelopment plan.

- **Create a long-term habitability strategy.**
  The long-term solution to the risk of flooding and the viability of New Orleans depend on fully protective levee and unwatering systems for the population returning to and reinhabiting the city. It is extremely important to address the long-term protection of the city from another such event of this magnitude.

Federal, state, and local agencies and relief organizations are responding heroically to the disaster. All organizations, including the agencies represented on this task force, should be doing their utmost to assist in recovery and rebuilding.

These conclusions and recommendations are current at the time of writing. Because the situation is dynamic and changing daily, updates on various topics will be given periodically by various organizations.