

**THE ROLES OF THE ENVIRONMENTAL PROTECTION AGENCY, THE FEDERAL HIGHWAY ADMINISTRATION AND THE ARMY CORPS OF ENGINEERS AS THEY RELATE TO KATRINA AND THE ONGOING RECOVERY**

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**HEARING**

BEFORE THE

**COMMITTEE ON  
ENVIRONMENT AND PUBLIC WORKS  
UNITED STATES SENATE  
ONE HUNDRED NINTH CONGRESS**

FIRST SESSION

OCTOBER 6, 2005

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ONE HUNDRED NINTH CONGRESS  
FIRST SESSION

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**THURSDAY, OCTOBER 6, 2005**

U.S. SENATE,  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
*Washington, DC.*

The committee met, pursuant to notice, at 9:30 a.m. in room 406, Senate Dirksen Building, Hon. James M. Inhofe (chairman of the committee) presiding.

Present: Senators Inhofe, Warner, Bond, Voinovich, Chafee, Murkowski, Thune, DeMint, Isakson, Vitter, Jeffords, Boxer, Carper, Lautenberg, Obama.

Senator INHOFE. Our meeting will come to order. I know Senator Jeffords will be walking in momentarily.

What we are going to do, right now we have five members, as soon as we have 10 members as a quorum, we will recess this hearing and go into a business meeting for the purpose of confirming five nominees. I think all of our members have the names of these nominees.

**OPENING STATEMENT OF HON. JAMES M. INHOFE,  
U.S. SENATOR FROM THE STATE OF OKLAHOMA**

We welcome our witnesses to this hearing. The EPW Committee has been very busy and very active since Katrina. We have held over 10 briefings, we have had closed hearings. We have had them with the Corps of Engineers, Highway, EPA and others. This committee just happens to have more jurisdiction over those entities that are keeping busy down in the New Orleans, Mississippi, Alabama area than any other committee of course.

What we are going to talk about today is the EPA, the Corps and the Federal Highway Administration are all playing key roles in the cleanup, recovery and rebuilding effort in the Gulf States. The Corps continues to de-water the city of New Orleans, pumping the water into Lake Pontchartrain. I was pleased to learn that the level of contamination in Pontchartrain may not be as bad as we once feared it was, when we were down there.

The Corps is also in charge of debris removal. Senator Vitter and I have written to both the Corps and the EPA, asking that they ensure this waste is managed properly and that existing permitted

landfill capacity is utilized before even considering opening up old, less desirable landfills.

I know the States are very involved in this issue, but as long as we are spending Federal dollars, we should be certain that the money is spent both wisely and in a manner that does not create future problems. In fact, I intend to watch very closely all dollars spent on Katrina to make sure that they are spent wisely in the cleanup, recovery and reconstruction. We simply can't afford to waste money or spend money on projects with little or no oversight.

We also are here to discuss the future of the vital infrastructure in the Gulf States. Katrina did unprecedented damage to highways and highway bridges in the Gulf States. I look forward to hearing from the Federal Highway Administration about what they are doing to respond to this disaster. The most recent estimate I have heard about the cost of repairs to highways and highway bridges damaged by Katrina has been lowered from \$2.4 billion to \$1.6 billion. That is good news. I understand that these are initial estimates, but I am interested in when these estimates will be more stable.

There was also substantial damage done in the Gulf States through water and the treatment work systems. While EPA is still assessing how bad the damage is, we look forward to working with them to ensure drinking water supplies.

Without doubt, the largest infrastructure project is going to be the flood control system in New Orleans. The levee system in place did not work. We still don't know if it failed or was breached. But it did not protect the city.

We need to understand why it didn't work and what we can do to avoid the problems and delays that were faced in the past. We all know that in 1977, lawsuits by environmental groups not only delayed the flood control solution for New Orleans, but forced the Corps to abandon its preferred solution. Those facts are simply not in dispute.

Many experts who were involved the process nearly 30 years ago are convinced that the project the Corps abandoned because of the environmental lawsuits in all likelihood would have saved New Orleans. Let me quote from three former well respected career Corps employees who were there 30 years ago, back at the time that they were enjoined by this lawsuit.

Rob Vining, a former chief of the Civil Works Program Management Division, Army Corps of Engineers said, "There is no question that environmental activists, through their aggressively pursued litigation, forced the Corps and local sponsors to compromise the level of protection that otherwise would have been available to the residents of New Orleans."

Joseph Towers, former chief counsel for the Army Corps of Engineers, said, "If we had built the barriers, New Orleans would not have flooded. I told my staff at the time that this judge had condemned the city. Some people said I was being a little dramatic."

Fred Caver, former deputy director of Civil Works, Army Corps of Engineers said, "The essential outcome of the 1977 lawsuit was that it caused the Army Corps to revert away from the hurricane protection barriers to a secondary plan that the Corps knew was inferior to the protection of New Orleans. The levees that broke

during Hurricane Katrina were in place because the Corps was prevented from building the hurricane protection barriers as a result of the lawsuit and the Corps had to revert to a secondary, inferior plan.”

Those outside the Corps came to the same conclusions. Greg Stone, who is professor and director of the Coastal Studies for LSU said, “The abandoned plan would have likely reduced storm surge from coming from the Gulf to Lake Pontchartrain. These floodgates would have alleviated the flooding of New Orleans caused by Hurricane Katrina.”

We can sit here and talk about what should have happened and what didn’t happen. This was projected. We knew that there were consequences out there. There are consequences every time someone is enjoined from doing something that logic demands that they do. In this case, we knew.

At that time, in 1977, Senator Vitter, as you well know, we didn’t use the category system to measure hurricanes. We know how in retrospect that what they were planning to do in 1977 would have at least taken care of the disaster that took place a month ago. So there are consequences to these things, and things we have to be aware of.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE  
STATE OF OKLAHOMA

Good morning and welcome to this committee’s oversight hearing on activities in response to Hurricane Katrina. The EPW Committee has been actively engaged since the hurricane struck land over 1 month ago. Since Katrina hit, we have held nearly 10 briefings for members and staff, including 2 closed door briefings. In fact, this is the third time in the past month that both EPA and the Corps have come before us for either a briefing or hearing on Katrina it is the second time for the Federal Highway Administration. I want to thank all of you for your cooperation with this committee.

We have much to talk about today as the EPA, the Corps and Federal Highway Administration are all playing key roles in the cleanup, recovery and rebuilding effort in the Gulf States. The Corps continues to dewater the city of New Orleans, pumping the water into Lake Ponchartrain. I was pleased to learn that the level of contamination in Ponchartrain may not be as bad as was once feared. The Corps is also in charge of debris removal. Senator Vitter and I have written to both the Corps and EPA asking that they ensure this waste is managed properly and that existing permitted landfill capacity is utilized before we even consider opening up old, less desirable landfills. I know the State is very involved in this issue, but as long as we are spending Federal dollars, we should be certain that the money is spent both wisely and in a manner that does not create future problems. In fact, I intend to watch very closely ALL dollars spent on Katrina to make sure they are spent wisely—in the cleanup, recovery and reconstruction. We simply can’t afford to waste money or to spend money on projects with little or no oversight.

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Without doubt the largest infrastructure project is going to be the flood control system in New Orleans. The levee system in place did not work—we still don’t know if it failed or was breached—but it did not protect the city. We need to understand why it didn’t work and what we can do to avoid the problems and delays that were faced in the past. We all know that in 1977, lawsuits by environmental groups not

only delayed the flood control solution for New Orleans, but forced the Corps to abandon its preferred solution. Those facts are simply not in dispute. Many experts who were involved in that process nearly 30 years ago are convinced that the project the Corps abandoned because of the environmentalist lawsuit, in all likelihood, would have saved New Orleans. Let me quote three former, well respected, career Corps employees who were there 30 years ago:

Rob Vining, Former Chief of Civil Works Program Management Division, Army Corps of Engineers: "There is no question that environmental activists, through their aggressively pursued litigation, forced the Corps and the local sponsors to compromise the level of protection that otherwise would have been available to residents of New Orleans."

Joseph Towers, Former Chief Counsel of the Army Corps of Engineers: "If we had built the barriers, New Orleans would not have flooded. I told my staff at the time that this judge had condemned the city. Some people said I was being a little dramatic."

Fred Caver, Former Deputy Director of Civil Works, Army Corps of Engineers: "The essential outcome of the 1977 lawsuit was that it caused the Army Corps to revert away from the Hurricane Protection Barriers to a secondary plan . . . that the Corps knew was inferior for the protection of New Orleans. The levees that broke during Hurricane Katrina were in place because the Corps was prevented from building the Hurricane Protection Barrier as a result of the lawsuit, and the Corps had to revert to the secondary, inferior plan . . ."

Those outside the Corps came to similar conclusions:

Gregory Stone, Professor and Director of the Coastal Studies Institute of Louisiana State University:

The abandoned plan "would have likely reduced storm surge coming from the Gulf and into Lake Ponchartrain. These floodgates would have alleviated the flooding of New Orleans caused by Hurricane Katrina."

While there is nothing we can do about the past, we can learn from our mistakes. We need to make sure that these extremist environmental groups do not delay or prevent the most effective flood protection system from being built. It is my intention to work with Senator Vitter and members of this committee and with the Corps to authorize a flood control system that will protect the city of New Orleans.

Let me again thank you all for coming today and I look forward to your testimony.

Senator INHOFE. Do we have our 10 people yet?

All right, I announced to Senator Jeffords before you came in that as soon as we get 10 people here we will go ahead and recess this and go in for a confirmation at that time.

Senator Jeffords is recognized.

#### **OPENING STATEMENT OF HON. JAMES M. JEFFORDS, U.S. SENATOR FROM THE STATE OF VERMONT**

Senator JEFFORDS. Good morning, Mr. Chairman. I want to thank you for holding today's hearing.

Hurricanes Katrina and Rita have had a devastating impact on the Gulf Coast of this Nation. It is critical that we do everything that we can to improve the lives of our fellow Americans whose lives have been uprooted.

Hurricane Katrina hit Florida as a category 1 hurricane, moved across the Gulf of Mexico and hit the Gulf Coast of the Nation as a strong category 4 hurricane. It passed within 10 to 15 miles of New Orleans, the winds, rains and storm surge caused a levee breach that flooded 80 percent of the city. Over 1,000 people lost their lives and thousands more lost their homes. There are 90,000 square miles of declared disaster area. Some people have characterized the environmental damage in New Orleans as catastrophic.

The agencies within this committee's jurisdiction have a major role in both the response and the recovery operations of Hurricane Katrina. Today is the first in a series of hearings on Hurricane Katrina where we will review the roles of agencies in our jurisdic-



tion and hear from State and local governments and others on the response to and recovery from Hurricane Katrina.

Mr. Chairman, before we begin to evaluate the disaster response we witnessed after Hurricane Katrina, and determine what needs to be changed, I think it is worthwhile to remember where we have been. Over the past 200 years, we have moved from an ad hoc approach to disaster response to a coordinated, orderly approach under the Stafford Act. On September 11, the Nation was struck by a terrorist attack. The effectiveness of the Stafford Act and FEMA helped reduce the impact of those events.

After September 11, the Department of Homeland Security was formed in what I believe was an act of extremely poor judgment that failed to take into account the unique mission of FEMA in responding to natural disasters. FEMA was moved into that department.

In 2002, I opposed the formation of the Department of Homeland Security in large part because of FEMA's inclusion. At that time, "I do not understand why we would jeopardize the Federal Government's effective response to natural disasters by dissolving FEMA into this monolithic Homeland Security Department. I fear that FEMA will no longer be able to adequately respond to hurricanes, fires, floods, earthquakes. The question is, who will?"

With Katrina, I believe that we sadly learned the answer to that question: No one. Unfortunately, we learned the hard way that we cannot, we must not neglect our natural disaster response capability. As Congress determines what the next steps are, we must ask ourselves, are we witnessing a performance failure by the Federal agencies to execute their authorities, or are we missing needed authority? I believe we have witnessed a performance failure, not a problem with existing authorities.

In the wake of this performance failure, Congress is stepping in. There have been about 50 Katrina-related bills introduced. Some of them duplicate the authority that exists in the Stafford Act or elsewhere. Some of them go so far as to delegate the authority to the President to waive any Federal statute.

So far, we have spent about \$70 billion provided for hurricane relief. I am concerned that we are returning to the ad hoc response to a disaster the Stafford Act was designed to prevent.

We need to return some order to our disaster response capability. Several weeks ago, I joined my colleague, Senator Clinton, as a sponsor of two bills which she introduced. The first establishes an independent commission to evaluate what happened after Hurricane Katrina and what steps needed to be taken. The second removes FEMA from the Department of Homeland Security and reestablishes it as a stand alone agency. These are two critical steps for long term.

In the short term, we need to be sure that Katrina recovery proceeds in a sensible manner, given what has occurred to date. Today I will be joining my colleagues on the minority side of the EPW Committee in introducing legislation to respond to Hurricane Katrina. It is imperative that there is a process in place for rebuilding Katrina-impacted areas. Our bill focuses on the items in our jurisdiction, mainly, infrastructure redevelopment.

Our legislation will provide direction to those agencies in our jurisdiction to ensure that Katrina recovery happens quickly, uses Federal funds wisely, and protects public health and the environment. I hope that we will move quickly to pass this legislation in this committee.

My questions in today's hearing will focus on two main themes. First, in the apparent chaos of the response to Hurricane Katrina, what have your agencies accomplished, what do you need to accomplish your missions? What are your plans for future recovery of the area, and do those plans make sense for the people of the Gulf Coast and the Nation?

Second, as we evaluate the Federal response mechanism, what lessons have you learned from Katrina, and what do you need for your agencies to be more effective in the future?

I look forward to hearing from each of you today, and I look forward to our second hearing in a few weeks, where we will hear from parties outside the Federal Government on these same issues. Thank you, Mr. Chairman.

[The prepared statement of Senator Jeffords follows:]

STATEMENT OF HON. JAMES M. JEFFORDS, U.S. SENATOR FROM THE  
STATE OF VERMONT

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Unfortunately, we learned the hard way that we cannot, we must not, neglect our natural disaster response capability. As Congress determines what the next steps are, we must ask ourselves: Are we witnessing a performance failure by the Federal agencies to execute their authorities, or are we missing needed authority? I believe we have witnessed a performance failure, not a problem with existing authorities. In the wake of this performance failure, Congress is stepping in.

There have been about 50 Katrina-related bills introduced. Some of them duplicate authority that exists in the Stafford Act or elsewhere. Some of them even go so far as to delegate the authority to the President to waive any Federal statute. So far, we have spent about \$70 billion provided for hurricane relief. I am concerned that we are returning to the “ad hoc” response to disaster that the Stafford Act was designed to prevent. We need to return some order to our disaster response capabilities.

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In the short term, we need to be sure that Katrina recovery proceeds in a sensible manner, given what has occurred to date. Today, I will be joining my colleagues on the minority side of the EPW Committee in introducing legislation to respond to Hurricane Katrina. It is imperative that there is a process in place for rebuilding Katrina-impacted areas. Our bill focuses on the items in our jurisdiction mainly, infrastructure redevelopment. Our legislation will provide direction to those agencies in our jurisdiction to ensure that Katrina recovery happens quickly, uses Federal funds wisely, and protects public health and the environment. I hope that we will move quickly to pass this legislation in this Committee.

My questions in today’s hearing will focus on two main themes: First, in the apparent chaos of the response to Hurricane Katrina, what have your agencies accomplished, what do you need to accomplish your missions? What are your plans for the future recovery of the area, and do those plans make sense for the people of the Gulf Coast and the nation? Second, as we evaluate the Federal response mechanism, what lessons have you learned from Katrina, and what do you need for your Agencies to be more effective in the future?

I look forward to hearing from each of you today, and I also look forward to our second hearing in a few weeks where we will hear from parties outside the Federal Government on these same issues.

Senator INHOFE. Thank you, Senator Jeffords.

We will now recess this hearing and convene a business meeting for the purpose of reporting out five nominees. We have 11 here.  
[Recess.]

Senator INHOFE. We are back into our meeting. All right, early bird rule. I would like to ask, to try to stay within our 5-minute limit on opening statements. Senator Boxer. I’m sorry, Senator Isakson.

Senator ISAKSON. In the interest of getting to the hearing, because I am going to have to leave. I would like to waive mine and submit it for the record.

Senator INHOFE. All right, that would be fine.

Senator Boxer.

**OPENING STATEMENT OF HON. BARBARA BOXER,  
U.S. SENATOR FROM THE STATE OF CALIFORNIA**

Senator BOXER. Thanks, Mr. Chairman. I just have to respond to your comments about how the environmentalists essentially were to blame for the flooding. I would like to put into the record a GAO study that was just completed September 2005. Here is the comment from the GAO. They don’t have any axe to grind.

“None of the changes made to the project are believed to have had any role in the levee breaches recently experienced as the alternative design selected was expected to provide the same level of protection. In fact, Corps officials believe that flooding would have been worse if the original proposed design had been built.”

Mr. Chairman, this is the GAO. I think it is really sad that we attack a group of people who essentially didn’t support a project

which wouldn't have done one bit of good and the community opposed. So I put that in the record, with your permission.

Mr. Chairman, our committee must help assure that the Gulf region is rebuilt in a safe and healthy manner. To find the right solutions, we have to have all the information we need to understand the scope of the problem. The EPA and the Louisiana Department of Environmental Quality have provided a first look at the unimaginable environmental devastation that must be remedied in the area.

Louisiana's Department of Environmental Quality estimates that as much as 70 million tons of hazardous waste must be disposed of as a result of the hurricane. EPA now says that 24 Superfund sites are located in the affected region, and at least one in New Orleans, the Agriculture Street landfill, was completely underwater. Katrina flooded New Orleans with up to 25 feet of water, creating a toxic soup filled with contamination.

Two weeks ago, Mr. Chairman, the Centers for Disease Control (CDC), reported that six people have died, from contamination-related infections. As this polluted soup recedes, it leaves a thick layer of muck. Louisiana officials estimate they are dealing with an area of roughly 20 miles by 10 miles coated in a 1-foot-thick layer of sediment or sludge. As this sludge dries, each moving vehicle and each gust of wind can create a potentially toxic cloud that people returning to New Orleans as well as first responders will breathe into their lungs.

Some are returning with their children, and we must make it safe for them. We must act decisively to safeguard our fellow citizens. I believe we should craft a health and safety Marshall plan as we reconstruct this ravaged area. We must arm people with information, accurate information, not information based on any of our ideologies or thoughts or guesses, but scientific information, I know you are very strong on that point, Mr. Chairman, so that they know if it's safe to bring their children home.

Now, I am concerned, and I am going to ask EPA about this, because my understanding is EPA may not be providing people with the clear information they need to safely participate in the recovery process. EPA characterizes air quality on its web site by saying, "the screening results indicated that chemical concentrations in most areas are below ATSDR health standards of concern." However, EPA is frequently referring to acute health standards. Acute means that exposure is safe over the course of 1 day. The acute standard for benzene, a cancer-causing chemical, is 50 parts per billion.

However, Katrina hit this area more than 5 weeks ago. First responders have been down there for longer than 1 day. People who return to New Orleans will stay longer than 1 day. I believe EPA should use a longer term standard to assess the safety of exposures. For benzene, a 2-week safety exposure standard is 4 parts per billion, not 50.

Fifteen air samples taken in New Orleans showed levels of benzene that exceeded the 4 parts per billion safety standard. EPA should be clear about the actual risks that may be faced when people return to the affected areas for more than 1 day. EPA should continue to use our Nation's environmental laws to protect people.

That's what they're designed for. We must not take away the safeguards the people in New Orleans need. If we do that, we are victimizing them twice.

Now, I'm very happy to see Lieutenant General Carl Strock here. He and I had a great conversation about the need and the value of healthy wetlands for protecting life and property from storms and flooding. Wetlands are buffers against storm surges and soak excess water from the storms. Healthy wetlands result in hurricanes reaching land sooner and thus cutting the hurricane off from the warm waters of the ocean's surface that feed the storm's strength.

We don't need to debate global warming, whether we believe in it or not. We know the warm temperatures of the water, whatever the cause, caused that hurricane to gain tremendous strength and ferocity. So I hope our committee will further explore this issue and the ways we can protect and conserve our Nation's wetlands.

In closing, Mr. Chairman, I would put into the record, with your permission, a quote from Dr. Beverly Wright, Director of the Deep South Center on Environmental Justice at Dillard University, a university that happens to be underwater at this time in the wake of Katrina. She said, "the public has a right to clean air and clean water, and those must be protected."

So Mr. Chairman, we have a lot of work to do. We talked early on about blame game and this and that. I think it's better if we just work together to make sure that the people are safe when they come back and we do everything we can to rebuild this area. Thank you.

Senator INHOFE. Thank you, Senator Boxer.

Senator Warner.

Senator WARNER. Mr. Chairman, I have to depart to open up the Armed Services Committee hearing. May I ask unanimous consent to insert into today's record questions to be responded to by the witnesses?

Senator INHOFE. Yes, certainly, and if there is any statement you would like to make?

Senator WARNER. No, thank you. This is a very important hearing.

Senator INHOFE. Without objection, that will be the case.

Senator Bond.

**OPENING STATEMENT OF HON. CHRISTOPHER S. BOND,  
U.S. SENATOR FROM THE STATE OF MISSOURI**

Senator BOND. Thank you very much, Mr. Chairman, for holding this hearing. We welcome the witnesses.

We have heard a lot after Hurricanes Katrina and Rita about what needs to be done. Little has been said about how the Federal Government is going to pay for these efforts. As chairman of the Subcommittee on Transportation and Infrastructure, I worked with my colleagues for 2 years and 7 months to get SAFETEA passed.

Now, some seem to be suggesting in time of broken roads and high fuel prices that the Government hijacked the fuel taxes our citizens pay at the pump to fix their roads to spend it on other Government programs. I have worked too long and too hard as mem-

bers of this committee have to put the trust back into the Highway Trust Fund to support this.

SAFETEA provides \$100 million in emergency relief funding aid out of the Highway Trust Fund. All excess funds are to come out of the general fund. Since we could all estimate that transportation costs from hurricanes will substantially exceed \$100 million, I trust that the Administration will not choose to raid the Highway Trust fund as a primary source of revenue for the emergency spending. I am supportive of waiving the cap on emergency relief funding, but I oppose raiding the Highway Trust Fund, paid by user fees, to keep people from being killed on the highways, to offset these costs.

We look forward to the testimony of the Acting Administrator of FHWA and working with the Administration to rebuild and reconstruct the infrastructure network.

I also look forward to the testimony of Mr. Woodley and General Strock. If we had debated flood protection for New Orleans before Katrina, I am sure when we reached the floor it would have been decried as pork barrel boondoggles that needed to be studied and reviewed and reviewed and studied and sued by EPA and Interior for years and decades, which would then be litigated by environmental groups, as the Chairman has indicated.

With respect to the comments on the GAO study, this is a paper study, not done with any of the officials, the experts in the region. The Chairman has already quoted some comments from the former deputy directors and the chief of civil works of the Corps of Engineers, as well as a professor at the Louisiana State University who said that the plan abandoned as a result of the lawsuit would have likely reduced storm surge coming from the Gulf and into Lake Pontchartrain.

After Katrina, we know that adequate flood control would have been a bargain, saving lives and money. I hope we learned a lesson, that Congress should lead the effort to prevent crises rather than rushing to respond to crises. We must follow the regular order in authorizing work that needs to be done. We must hear from the experts and not dump a bunch of money without knowing where it's going.

The WRDA bill that we passed out of this committee can and will be amended to take into account the considered opinions of our experts on this rebuilding in the Gulf region. I will insist that we follow the regular order before putting money into this tremendous tragedy.

Finally, I commend the work of the Corps of Engineers in their highly heroic involvement in the global war on terror. Right now, there are over 500 civilian and military personnel serving in Iraq and 120 in Afghanistan, while others are holding the fort short-handed here at home. It's a critical mission and obviously dangerous, but it must be satisfying to the Corps to know that they are over there, rather than simply studying and wrestling with red tape, as we often require here, that we're getting things done.

In the Middle East, they build bases, hospitals, training facilities, barracks, powerplants, water and wastewater treatment. More than 2,700 projects are underway in Iraq. Faced with a highly neglected power system under Saddam, which allocated power to cro-

nies, the Corps has helped add to the grid enough capacity to serve more than 5 million additional Iraqi homes. Some of the Corps' work is in the majority of provinces where there is little violence. They are also operating in very dangerous areas and for that, we express our thanks.

When one wonders why America is the world's economic, military and democratic leader, fundamentally that question is answered regularly by the enduring quality known as the American spirit, as witnessed both by our private citizens and these fine public servants. General Strock, I congratulate you and the members of the Corps, and we thank you for your good work.

[The prepared statement of Senator Bond follows:]

STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE  
STATE OF MISSOURI

Welcome to this morning's hearings to receive testimony on the actions of EPA, the Army Corps of Engineers and the FHWA as they relate to Katrina. I would like to thank the witnesses for their testimony today.

Following hurricanes Katrina and Rita, much has been said about what needs to be done with regard to relief efforts, but little has been said about how the Federal Government is going to pay for these efforts. As the Subcommittee Chairman of Transportation and Infrastructure, I had the pleasure of working for over 2 years on the newly signed law SAFETEA-LU. Some seem to be suggesting, in a time of broken roads and high fuel prices, that the government hijacked the fuel taxes our citizens pay at the pump to fix their roads so they can spend it on other government programs. I have worked too long to keep the "trust" in the trust fund to support this.

SAFETEA-LU provides for \$100 million in emergency relief funding per State out of the Highway Trust Fund, and all excess funds are to come out of the General Fund. Since we can all estimate that the transportation costs from the hurricanes will substantially exceed \$100 million, I am hopeful that the Administration will not choose to raid the Highway Trust Fund as the primary source of revenue for the emergency spending in the Gulf Region. While I am supportive of waiving the cap on emergency relief funding, I am very opposed to the raiding the Trust Fund to offset costs.

I look forward to the testimony of the Acting Administrator of the Federal Highway Administrator Richard Capka, and working with the Administration to rebuild and reconstruct the infrastructure networks of the Gulf Coast.

I also look forward to the testimony of Mr. Woodley and General Strock. If we had debated adequate flood protection for New Orleans before Katrina, it would have been decried as a pork-barreled boondoggle that needed to be studied and reviewed by EPA and Interior for years and decades, which it would then be litigated. After Katrina, we know that adequate flood control would have been a bargain saving lives and money. I hope the lesson we learn is that Congress should lead the effort to prevent crisis rather than rushing to respond to crisis. That's why we must follow regular order and pass a robust WRDA that takes care of reasonable needs in the Gulf Coast Region.

Finally, I note the valuable missions the Corps of Engineers perform for this Nation, another mission of the Corps I like to touch upon is the Corps' highly and heroically involvement with the Global War on Terror.

Over 500 civilian and military personnel from the Corps are currently serving in Iraq and 120 in Afghanistan while others are holding up the fort short-handed here at home. While it is a critical mission and obviously dangerous, it must be satisfying that the Corps can spend more time building infrastructure over there than simply studying and wrestling with red tape compliance as we often require here. In the Middle East, they are building bases, hospitals, training facilities, barracks, power-plants, water, and wastewater treatment plants. Currently, more than 2,700 projects are underway in Iraq. Faced with a highly neglected power system under Saddam which allocated power to his cronies, the Corps has helped add to the grid enough capacity to service more than 5 million additional Iraqi homes.

Again, while the Corps is operating in the majority of provinces where there is very little violence, they are also operating in dangerous locations.

When one wonders why America is the world's economic, military, and democratic leader, fundamentally, that question is answered regularly by this enduring quality

known as the American spirit as witnessed by both our private citizens and these fine public servants.

I thank you and congratulate you.

Senator INHOFE. Thank you, Senator Bond.  
Senator Lautenberg.

**OPENING STATEMENT OF HON. FRANK R. LAUTENBERG,  
U.S. SENATOR FROM THE STATE OF NEW JERSEY**

Senator LAUTENBERG. Thank you very much, Mr. Chairman. Thanks again for calling this hearing and giving us an opportunity to talk about Katrina recovery efforts by the EPA, the Corps and Federal Highway Administration.

The first head of EPA in this Administration was a former Governor from my State of New Jersey. She tried to do some good things to protect the environment, which is supposed to be the mission of the Environmental Protection Agency. She was undermined and undercut by the Administration. I believe that she finally realized that protecting the environment was not a high priority and that she became the first cabinet officer to resign from the present Administration. I hope that we are not seeing history repeat itself.

Two weeks ago on September 22, in a closed-door briefing for this committee, Administrator Steve Johnson was asked whether EPA needed any additional legal authority to perform its cleanup role in the Gulf States. He said that EPA already had sufficient legal authority and no new powers were needed.

The very next day, EPA reversed its position and announced support for a sweeping proposal that would allow it to waive virtually any environmental law anywhere in the country. Almost since that moment that this storm struck the Gulf Coast, some have been planning to use the tragedy as an excuse to dismantle decades of environmental protection. In fact, waiving environmental protection was on a list of a Republican post-Katrina agenda as reported in the Wall Street Journal September 15. It was a week before Administrator Johnson briefed this committee.

So I want to be clear. Everybody supports the goal of expediting the emergency needs of Katrina's victims. They need the basic elements: food, clothing, shelter, and they need it without delay.

It is also critical that EPA fulfills its mission to protect the environment, not add insult to injury, not ask people to go back and have their families drinking polluted water, raising the possibility that air quality is going to be substantially deteriorated. Gutting environmental standards won't help the victims of Katrina or any other American family.

The people of New Orleans want to return home and get on with their lives. They don't want to do it without it being safe. So as Administrator Johnson told us, we can balance the needs in the Gulf with the environmental protection currently on the books.

Mr. Chairman, this is a good moment, and a very distinguished panel of witnesses. I look forward to hearing from them and an opportunity to ask them some questions. Thank you.

Senator INHOFE. Thank you, Senator Lautenberg.  
Senator Vitter.



**OPENING STATEMENT OF HON. DAVID VITTER, U.S. SENATOR  
FROM THE STATE OF LOUISIANA**

Senator VITTER. Thank you, Mr. Chairman, for this hearing. Thank you, Ranking Member Jeffords, and I would like to thank the witnesses as well.

Certainly the Army Corps of Engineers, the Federal Highway Administration and EPA are playing a critical role in response and cleanup efforts as we begin to rebuild the greater New Orleans area. I want to thank them for this work.

Mr. Chairman, first I want to stress that this hearing and these issues are extremely important as national issues and priorities. Because Hurricane Katrina is an unprecedented disaster. As such, it is not some parochial Louisiana or Mississippi issue, but it is a national issue which involves national concerns and national priorities. Never before has a major, modern American metropolitan area been fully evacuated and a whole region of the country effectively economically shut down.

I think that is important to understand, particularly as we under the impact this has on our national economy. I think folks are beginning to understand that. Anyone who fills up their gas tank, pays their utility bill, purchases products or services with an energy surcharge, purchases food products, will feel the impact of this disaster.

So it's important that we rebuild this area even better than it was before, more secure than it was before, not just for Louisiana reasons or Mississippi reasons, which of course I care about, but for national reasons and because of national priorities.

Again, what am I talking about? Energy, 20 percent of our Nation's energy needs come from or through Louisiana. A storm like this, which can happen again unless the area is better protected, will cause this significant disruption to our energy supply again in the future.

What about trade and commerce? Up to 70 percent of the crops from our midwestern farmers are dependent on south Louisiana ports to get those to market. So that is a very important national priority, which again we need to focus on.

Finally, seafood. Our area is the second largest producer of domestic seafood. Between the two recent hurricanes, it has been estimated that up to one-third of our domestic fishing fleet is damaged or destroyed.

So there are plenty of national reasons we need to have this focus that you have been a leader on. Certainly as I said, these three agencies before us have played a critical role in the weeks since Katrina and are continuing to play a critical role.

First, the Army Corps of Engineers, clearly the lead Agency in terms of our hurricane and flood protection. We need to move forward, rebuild our area, but rebuild it in a way to make sure we are safe and the country and the national economy are safe from future hurricanes. We need to rebuild protection to category 3, which is what we were supposed to have before the storm, and then we immediately need to understand and immediately need to have a blueprint about how we move up to category 5 hurricane protection.

I can't stress enough how the people of Louisiana need to feel safe, need to feel like there is a plan before they are going to be able to move back home and before our economy is going to be able to get up and running. I have already talked to Mr. Woodley and others about this. It seems to me the first order of business as we walk down this path is to fully understand what happened with our present hurricane and flood protection system.

So Mr. Chairman, for that reason today, right now but also through a formal letter to you, I am going to ask for a specific follow-up hearing, focused exclusively on the key threshold question which needs to be answered before we take any other action. That key threshold question is, whether the present levee system, the present hurricane and flood protection system in greater New Orleans lived up to its design standards, which were category 3, or in fact failed in several important respects to those design standards. I think that's the first question we need to answer honestly before we understand what we need to do next week, next month and in the years ahead as we buildup to category 5 protection.

Transportation, of course Federal Highway Administration is crucial in that. Vital transportation infrastructure is heavily relied on all through the region and has been greatly damaged. Maybe the best example of that is part of I-10, the twin span bridges between New Orleans and Slidell, which were completely damaged and put out of operation by Hurricane Katrina. To rebuild the twin span bridges, the Louisiana Department of Transportation needs Federal emergency transportation relief assistance.

That is why I join with you, Mr. Chairman, and other committee members in introducing S. 1714, to provide \$2.9 billion in emergency transportation relief to Alabama, Mississippi and Louisiana. I thank you for your leadership on that.

Finally, EPA, a very important agency in terms of monitoring environmental issues so that we can move forward effectively and safely. I thank them for that work. It is very important work, but I also want to make a comment in direct response to some of Senator Boxer's comments. It is important that we do this work and it is important that we do it right and do it based on science and communicate that fully to the American people.

I can't count the number of times, including this morning, I have heard the expression "toxic soup." That is a completely unscientific, undefined term that doesn't represent in any meaningful way what's going on in the greater New Orleans area. Are there environmental issues that we need to monitor and be concerned about? Absolutely. Is there toxicity there, widespread and anything that would be adequately described by that term? Absolutely not.

The problem is, when we use undefined, unscientific terms like that, it is an enormous impediment to residents, tourists, commerce coming back to the metropolitan area. So I welcome EPA being at the table and I welcome them bringing some focus and precision to the reality on the ground, which involves environmental issues but doesn't involve some 2-foot thick sludge of toxic soup throughout the entire metropolitan area.

With that, Mr. Chairman, I thank you and I very much look forward to the continuing work of this committee.

[The prepared statement of Senator Vitter follows:]

STATEMENT OF HON. DAVID VITTER, U.S. SENATOR FROM THE STATE OF LOUISIANA

Chairman Inhofe and Ranking Member Jeffords, thank you for having this hearing today on Hurricane Katrina. I appreciate the witnesses for being here too. The Environmental Protection Agency, the Army Corps of Engineers and the Federal Highway Administration play a critical role in not only the response and clean-up efforts but also in rebuilding New Orleans and the surrounding affected parishes after Hurricane Katrina.

Hurricane Katrina is an unprecedented disaster. Never before has a major, modern American city been fully evacuated and a major region of the country shut down—including all sources of revenue.

Some Americans view Katrina as a parochial disaster—a problem for Louisiana. Nothing could be further from the truth. Anyone who has filled their gas tank, paid their utility bill or purchased products or services with an “energy surcharge” knows that this is not just a natural disaster, but a national disaster.

Rebuilding Louisiana even better than it was before will truly benefit our entire U.S. economy. Louisiana is home to the largest port system in the world. Thirty-six States rely upon our ports for maritime commerce. Up to 70 percent of the crops from our mid-western farmers are dependent upon our ports to get their products to market. Louisiana is the second largest producer of domestic seafood. Between Hurricanes Katrina and Rita, it has been estimated that up to one-third of our domestic fishing fleet is damaged or destroyed. Energy prices have spiked; our domestic fishermen have been devastated and our farmers have no way to get their crops to foreign markets.

The Environmental Protection Agency, Army Corps of Engineers, and Federal Highway Administration play key roles in ensuring the environment of New Orleans and Southeastern Louisiana are safe to return to, a secure level of hurricane protection is in place, and roads and infrastructure are in place to move people safely in and out of the area. It is important that the agencies work this process quickly and efficiently so that we do not risk this devastation happening again during future hurricanes.

We need to rebuild Louisiana so people are safe from future hurricanes. We need hurricane protection and levees that will sustain a category five hurricane. I cannot stress enough how the people of Louisiana need to feel safe before they move back home—drastically improved hurricane protection and flood prevention is mandatory. We are at a crucial point and the Environmental Protection Agency, Army Corps of Engineers, and Federal Highway Administration need to continue to take action to ensure New Orleans and the surrounding parishes are safe for people to move back.

Lake Pontchartrain is one of America’s significant bodies of water. As a freshman in Congress, one of the first pieces of legislation I introduced and passed was the Lake Pontchartrain Basin Restoration Act of 1999 to establish this program within the Environmental Protection Agency. The purpose was to give Lake Pontchartrain the same status as other nationally significant restoration efforts. Over the past 4 years, I have secured nearly \$18 million for work in the basin. I am very concerned about the possible effects the returned discharged water will have on Lake Pontchartrain. I look forward to hearing from the Deputy Administrator about the precautions taken by the EPA to ensure the pollution level is kept at a minimum.

Vital transportation infrastructure which is heavily relied upon by the residents of the North and South shore of Lake Pontchartrain—the I-10 “Twin-Span” Bridges—were damaged by the full force of Hurricane Katrina. To rebuild the Twin-Span Bridges the Louisiana Department of Transportation and Development needs Federal emergency transportation relief assistance.

That is why I, along with Chairman Inhofe, and other Environment and Public Works Committee members introduced S. 1714. This piece of legislation will provide \$2.9 billion in emergency transportation relief to Alabama, Louisiana and Mississippi. It is critical that our States receive this funding to rebuild our transportation infrastructure. I look forward to hearing from Acting Administrator Richard Capka on the response taken by the Federal Highway Administration after Hurricane Katrina.

We all need to work together and I look forward to hearing from the witnesses today about where the agencies are with the response and where they are going from here to continue their progress in an expedited fashion to rebuild Louisiana.

Senator INHOFE. Thank you, Senator Vitter.  
Senator Voinovich.

**OPENING STATEMENT OF HON. GEORGE V. VOINOVICH,  
U.S. SENATOR FROM THE STATE OF OHIO**

Senator VOINOVICH. Thank you, Mr. Chairman. I applaud your initiative and leadership in considering the next stage of this recovery effort. I thank the Environmental Protection Agency, the Army Corps of Engineers and the Federal Highway Administration for being here today.

I know there have been some concerns about how the Federal Government responded in the wake of Hurricane Katrina, so it is vital to hear from these agencies what we did right and more importantly, what must be done to respond to the aftermath of Katrina and future natural terrorist disasters in the United States of America. I hope that the emphasis of this hearing is not on what happened, but more on what we need to do to deal with the aftermath and what we need to do to make sure that we don't have the same kind of situation in the future.

The Congress of the United States, in my opinion, spends too much time looking at the past instead of looking at the present and what we need to do in terms of the future challenges that we have. The hurricane has shown that we have serious needs for the repair and improvement of our Nation's aging infrastructure and waterway systems. The desperate conditions these systems currently endure are impacting our economy, the environment and the welfare of the American people.

Currently, the backlog of unfunded Army Corps of Engineers operation and maintenance projects authorized by Congress is \$1.2 billion. This is up from \$250 million when I arrived in the Senate in 1999. In 2001, there was a \$38 billion backlog in active water resource projects. Today it is at \$41 billion.

Annual appropriations for the Corps' construction account fell from \$4 billion average in the mid-1960's, this is the 1960's, \$4 billion to \$1.37 billion average for 1995 to 2004. I am deeply concerned that the level of appropriations for the Corps of Engineers civil works program is not sufficient to provide for the efficient development of worthy and needed projects this committee authorizes.

National investment in water resources has not kept pace with our level of economic expansion. If this steep decline in Federal investment persists, our continued economic expansion and environmental improvements will be threatened. Mr. Peacock, you have the same problem in the Environmental Protection Agency. You have never come by this committee. Maybe you could stop by OMB to deal with the sewer and water problems that we have in this country today. They are enormous.

The economic benefits of infrastructure projects speak for themselves. The Corps' current efforts for Katrina will cost taxpayers at least \$3 billion. While I am a fiscal conservative, it is clear there are certain areas the Federal Government has an appropriate role, and there are two specific areas, navigation and flood control, where the Federal Government must have a role.

If Congress and the Administration had been willing to provide adequate funding for these infrastructure projects for the Gulf Coast, perhaps the Army Corps of Engineers would not be here today requesting additional money. We had better respond to Sen-

ator Vitter's complaints constantly that, what is it, a football field a day you are losing in terms of your coast line?

Senator VITTER. Unfortunately, it is a football field every 38 minutes. Of course, that doesn't count what Katrina did in one fell swoop, which accelerates that significantly.

Senator VOINOVICH. Thank you.

In August 2002, the Corps completed a reconnaissance study of whether to strengthen coastal Louisiana's hurricane damage reduction projects to protect against category 4 and 5 storms. In September 2004, the Army Corps of Engineers stated the feasibility study would cost \$8 million. The study only received \$100,000 in fiscal year 2005 appropriations. It was not included in the President's fiscal year 2006 request, even though the Corps stated that \$500,000 was needed for fiscal year 2006 to initiate work on the feasibility study.

Today, the Corps estimates that the cost of the study is \$12 million and will need to be fully funded by the Federal Government, expedited. I know there are some members of this committee that say, we are not going to do anything about the levees in New Orleans until we get the WRDA bill passed.

Well, I think we ought to go to the leader and find out what chance we have to get the WRDA bill up, and if we can't get the WRDA bill on the floor, we ought to move forward and decide whether we are going forward to bring this levee to a level 5, how much it will cost, allocate the money, let the people know how long it's going to take so they can make plans to determine how they are going to develop New Orleans.

That is the first question. Is it going to be level 5, and then how long is it going to take? Because that will have a dramatic impact, Mr. Chairman, on what is going to happen in New Orleans.

Finally, it has been 5 years since we passed the Water Resources. The last two Resource bills were when I was chairman of the Infrastructure Transportation Committee, when I came in here as freshman, 5 years ago. I just can't believe it.

We know there were mistakes made before and after Hurricane Katrina, but I believe the Senate, and particularly this committee, is committed to improving the Federal Government's role during a disaster. Today is just the first step we are going to take and I am confident that we can make certain that Federal agencies involved in responding to the aftermath of Katrina are going to have the resources they need, but just as important, have the resources we need to contend with future natural disasters.

Senator INHOFE. Thank you, Senator Voinovich.

Senator Chafee.

Senator CHAFEE. Mr. Chairman, can I submit my statement for the record?

Senator INHOFE. Thank you, Senator Chafee.

[The prepared statement of Senator Chafee follows:]

STATEMENT OF HON. LINCOLN CHAFEE, U.S. SENATOR FROM THE  
STATE OF RHODE ISLAND

I am troubled by the tragic events and loss of life that occurred as a result of Hurricane Katrina. My heartfelt sympathies go out to the victims and the families affected by this disaster. In this time of crisis, we must come together as a Nation to assist those whose lives have been devastated.

Today, we will be receiving testimony from three Federal agencies under the jurisdiction of this Committee that are responsible for implementing specific aspects of the National Response System.

Protecting and responding to hazardous substance releases, the restoration of public wastewater and drinking water systems, and conducting environmental assessments of natural and manmade disasters are a few of the emergency responsibilities under the charge of the Environmental Protection Agency (EPA). I understand EPA has worked closely with FEMA and other Federal agencies, the States, and local governments to ensure public health and the environment are protected and restored after this devastating crisis.

EPA is charged with another important role for dealing with the aftermath of a disasters such as Katrina—Congress has provided the agency with various authorities to issue temporary emergency waivers of the nation's environmental laws in order to address critical needs. As each waiver has been issued in the Katrina situation, this Committee has closely reviewed the purpose and background for providing relief in relation to such laws as the Clean Water Act and Clean Air Act.

I understand the importance of waivers of this nature for addressing immediate needs and alleviating problems directly associated with Hurricane Katrina. The request to move contaminated flood waters out of the city of New Orleans and back into Lake Pontchartrain required a Clean Water Act waiver. This was well documented and understood—the flood waters were contaminated and had to be quickly moved out of the low-lying areas of the city. Similarly, EPA has issued a number of waivers under the Clean Air Act in relation to the storm to ensure a constant fuel supply across the Nation. I have supported these efforts, but take serious pause at the request to provide blanket waivers of the nation's environmental laws in response to this type of catastrophe. In order to agree to something of this nature, I would need to review documented examples of ways in which each of our Federal and State environmental laws do not adequately provide the authorities necessary for EPA to issue emergency waivers in response to a disaster.

The Army Corps of Engineers and Federal Highway Administration have also been heavily involved in the Katrina response, and I look forward to learning more about their efforts. Thank you.

Senator INHOFE. Senator Thune.

Senator THUNE. Thank you, Mr. Chairman.

Senator INHOFE. Excuse me, Senator Thune. I understand that, Senator Vitter, you may have someone you want to introduce.

Senator VITTER. Thank you, Mr. Chairman. I didn't realize these folks were in the audience when I gave my opening statement. I do want to recognize Junior Rodriguez. He is the Parish President of St. Bernard Parish and he is accompanied by his special assistant, Charlie Rappell.

Mr. Chairman, St. Bernard Parish was one of the absolutely most decimated areas hit by Hurricane Katrina. Eighty percent of the homes have been destroyed or will be condemned. There is one functioning home in the parish right now, and of course, because of all of that, it has virtually no incoming revenue to address payroll and other government needs. So these leaders are working valiantly through that situation and I want to recognize them.

Senator INHOFE. We appreciate that very much. I had an opportunity to meet them when I was with you in New Orleans right after Katrina.

Excuse us, Senator Thune, you are recognized.

**OPENING STATEMENT OF HON. JOHN THUNE, U.S. SENATOR  
FROM THE STATE OF SOUTH DAKOTA**

Senator THUNE. Thank you, Mr. Chairman, Senator Jeffords, and I want to thank the panel for being here as well. Thank you for organizing today's important hearing regarding the Federal Government's response to Hurricane Katrina.

I do want to say on sort of an unrelated note, express my appreciation to the Corps, Mr. Woodley and General Strock for your good work in helping us address a situation up in upper reaches of the Missouri River with the Cheyenne River Sioux Tribe water supply issue that was a very serious matter earlier this year, could have created enormous water supply issues for literally thousands of people who live on the reservation and surrounding area. You were extremely responsive on that, and I appreciate your assistance.

We have obviously a massive Federal response underway in the Gulf region, and I appreciate the good work that each of the agencies that is represented here today is doing, and look forward to hearing more about the scope of the damage as well as what each of the agencies have done this far pursuant to the National Response Plan.

I won't be able to stay for the entire hearing due to a conflict with the Armed Services Committee, but I am interested in hearing the witnesses' response to a piece of legislation I introduced last month along with a handful of my colleagues on this committee, Senate bill 1761, the Gulf Coast Recovery Act. Senator Vitter and others who hail from that region know all too well that Hurricane Katrina caused untold devastation that will take years to recover from.

The bill that I introduced, along with Senator Vitter, seeks to expedite the cleanup and recovery process by ensuring that Federal contractors who are involved in State and Federal cleanup efforts there are shielded from burdensome and unjust litigation as they assist the Government in carrying out the cleanup in the Gulf Coast region.

I do want to point out to my fellow colleagues that Senate bill 1761 is modeled after the Safety Act that Congress passed following the 9/11 terrorist attacks and is something I hope we can pass in the near future. While I am not obviously asking our witnesses today to endorse the legislation, I would appreciate hearing from each of you about how your respective agencies, as well as your private sector partners, are impacted by the threat of post-disaster cleanup efforts.

So as I said, Mr. Chairman, I will not be able to stay for the entire hearing today, but I do have some questions as well with respect to a couple of other issues that pertain to Katrina and river management issues that I would like to submit to the record for our witnesses to respond to in writing.

Senator INHOFE. Without objection, that will be included.

Senator THUNE. Thank you, Mr. Chairman.

[The prepared statement of Senator Thune follows:]

STATEMENT OF HON. JOHN THUNE, U.S. SENATOR FROM THE  
STATE OF SOUTH DAKOTA

Mr. Chairman, I want to thank you for organizing today's important hearing regarding the Federal Government's response to Hurricane Katrina. While a massive Federal response is underway in the Gulf Coast Region, I look forward to hearing from each of our witnesses today to get a fuller understanding of the scope of the damage as well as the work the Army Corps, EPA and DOT have done thus far pursuant to the National Response Plan.

Even though I won't be able to stay for today's entire hearing due to a conflicting hearing on the Armed Services Committee, I am interested in hearing from each

of our witnesses concerning a bill I introduced last month along with a handful of my colleagues on this committee S. 1761, the "Gulf Coast Recovery Act."

As Senator Vitter and others who hail from the Gulf Coast Region know all too well, Hurricane Katrina caused untold devastation that will take years to recover from. The bill I introduced, along with Senator Vitter seeks to expedite the clean-up and recovery process by ensuring that Federal contractors who are involved in state and Federal clean-up efforts are shielded from burdensome and unjust litigation as they assist the government in carrying out the clean-up of the Gulf Coast Region.

I want to point to my fellow colleagues that S. 1761 is modeled after the SAFETY Act that Congress passed following the 9/11 Terrorist attacks and is something that I hope we can pass in the near future.

While I am not asking today's witnesses to endorse this common sense legislation, I would appreciate hearing from each of you about how your respective agencies (as well as your private sector partners) are impacted by the threat of litigation in post-disaster clean-up efforts.

Mr. Chairman, because I will not be able to stay for today's entire hearing, I ask unanimous consent that I be allowed to submit the following questions for the record.

Senator INHOFE. We thank you very much.

Let me say before we start with our witnesses, we had occasion to be down there with Senator Vitter right after this happened. I know there have been a lot of hits that have been taken by EPA, Corps of Engineers, FHWA, FEMA. It was our experience in talking to the people on the ground, they were actually there 1 and 2 days before landfall. I want to make that observation, because I think Senator Boxer is correct when she says, there's always a blame game going on. You folks, I think the performance was much better than was reported.

Why don't we start with opening statements. We will go ahead and start with you, Mr. Peacock, and we will just try to keep them somewhere around 5 minutes, 6 minutes, then we will open up for a round of questioning.

**STATEMENT OF HON. MARCUS PEACOCK, DEPUTY ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY**

Mr. PEACOCK. Thank you, Mr. Chairman, Senator Jeffords, members of the committee. My name is Marcus Peacock, I serve as the Deputy Administrator for the U.S. Environmental Protection Agency. I appreciate the opportunity to provide you today with an update of EPA's response in relationship to Hurricane Katrina.

I request that my written statement be submitted for the record.

Senator INHOFE. Without objection.

Mr. PEACOCK. Our hearts go out to the people of the Gulf region. Our continuing response will require a sustained, long term coordination across all Federal agencies, as well as with the affected State and local governments. My testimony today on Hurricane Katrina will update you on a number of areas of interest.

First, I would like to briefly touch on EPA's early response to Hurricane Katrina, which the Chairman was just alluding to. EPA readied or pre-deployed personnel to the National Response Coordination Center and sent on-scene coordinators to Florida, Louisiana, Alabama and Mississippi before Hurricane Katrina made landfall. Then after Hurricane Katrina made landfall, EPA joined other organizations in urgent rescue needs. In fact, we used 60 watercraft, and these are watercraft that are typically used for environmental monitoring, as search and rescue vessels.



As soon as possible, EPA then turned its attention to its primary responsibilities under the National Response Plan. These responsibilities include providing guidance for debris issues, assisting with the restoration of drinking water and wastewater facilities and addressing hazardous releases and oil spills.

I'd like to now mention some of the issues of greatest concern that we have had and are continuing to deal with. These include debris management, the status of the drinking water and wastewater infrastructure, and sediment, air and flood water monitoring results.

First, let me discuss debris. Working very closely with the Corps of Engineers, we have provided guidance on the safe disposal of debris that may contain PCBs and asbestos and continue to provide site specific technical assistance in the disposal of hazardous and nonhazardous waste.

Regarding drinking water and wastewater facilities, and I have charts here which should be helpful. Senator Vitter, I hope you can see that. These pie charts for each State show the population that was affected in terms of receiving drinking water. As of October 4, the States report that approximately 84 percent of drinking water systems in the affected region were operational. That's the blue areas. Those populations have drinking water now available to them.

Senator INHOFE. Pardon me for interrupting. What is the date of what we are seeing right now?

Mr. PEACOCK. This is through October 4. So this represents the water, the population that was being served by water systems affected by Hurricane Katrina. So 84 percent of the systems, a majority of the people, now have operating water systems. They are getting potable water. In the non-blue sections, over a million people are currently being served by facilities that we know are not operating or we don't have complete information on the status of them.

Wastewater facilities were also affected. This information I am showing now is also through October 4. This shows the number of facilities in the affected region for the three States. As of October 4, 96 percent of these facilities were operational. As you can see, there are some facilities, particularly in the red, 4 percent of the systems, 16 of them, serving a population of over half a million people, are not operating right now. That includes, for instance, one of the facilities in New Orleans. Getting 100 percent of these drinking water and wastewater facilities up and running is a very high priority for us.

Let me talk about oil spills and hazard releases very briefly. EPA and the Coast Guard are working together to conduct more than 130 emergency response actions as a result of over 600 reported incidents during this period. I know Superfund sites are of great interest to the committee. There is a map here of the Superfund sites in the affected area for Katrina. As Senator Boxer mentioned, there are 24 of them. These are National Priority List sites.

We were able to conduct initial assessments, both the States and EPA, as soon as these sites were accessible to us. Of course, these tended to be "first looks" and recognizing that, we are continuing assessments and, where necessary, conducting water or soil samples at the sites of greatest concern.

Regarding floodwaters, here is a map of New Orleans showing the sites where we have done tests with the State. We have tested for over 100 chemical priority pollutants. The yellow dots show the sites that were tested before Hurricane Rita, because there was, of course, re-flooding. The orange dots indicate where we have tested post-Hurricane Rita.

The results to date indicate that the flood water does have high levels of bacterial contamination, including e. coli, and some locations do have some elevated levels of chemical contaminants including lead and arsenic levels which exceed EPA drinking water levels.

Let's discuss sediment briefly. These are similar maps showing yellow dots for where we tested prior to Rita and orange for post-Rita testing. These were again collected by EPA and the State. As you would suspect, the sediments contain what we found in the water, elevated levels of bacteria. They also contain levels of fuel oils. Levels of metals detected thus far have been below levels that would be expected to produce immediate adverse health effects, but just the contamination and the bacteria alone suggest people should not be handling this material without some protection.

Let's discuss air monitoring. This is becoming of increasing concern. There are a number of tools we have for air monitoring, everything from the ASPECT aircraft and the TAGA bus, which is shown here, which stands for Trace Atmospheric Gas Analyzer. They take snapshots, screening data, to help us identify where problems may exist. Then we have other methods, such as the DataRam 400 monitors, and stationary monitors that we have set up and are setting up that can provide more data over a longer period of time.

In conclusion, and looking ahead, much remains to be done to address public health and the environmental impacts of Hurricane Katrina, as well as Hurricane Rita. Some of you know I have not been at the agency very long. The way I have seen the EPA employees respond with determination and a sense of mission in this crisis, just in the past few weeks, makes me very proud to be counted among them. I would be happy to answer any questions.

Senator INHOFE. Thank you, Mr. Peacock.

I would ask Secretary Woodley and General Strock, you might divide the time between the two of you as you wish.

**STATEMENT OF JOHN PAUL WOODLEY, JR., ASSISTANT  
SECRETARY OF THE ARMY FOR CIVIL WORKS**

Mr. WOODLEY. Yes, sir. Mr. Chairman and members of the committee, I have a very brief summary, and I would like leave to add written comments to the record.

I am John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works. Lieutenant General Carl Strock, Chief of Engineers and I, are here to discuss the Army Corps of Engineers relief effort in the wake of Hurricane Katrina, as well as the role the Corps of Engineers will play in the reconstruction efforts that lie ahead.

I visited the Hurricane Katrina disaster area September 16 and 17, and the devastation was immense. I saw the recovery process already underway and after my visit, I am assured that the Corps is successfully postured to continue its support to FEMA and the

Department of Defense and their response to the disaster, as well as to continue our ongoing civil works mission throughout the Nation.

While the Corps is focused on disaster relief, recovery and de-watering New Orleans and surrounding areas, we stand ready to work with local and State officials as they plan for the rebuilding of New Orleans and the rest of the Gulf Coast. The Corps has completed a reconnaissance study assessing the general engineering feasibility, economic justification and potential environmental implications of providing a higher level of hurricane protection to New Orleans. More analysis will be required to determine the most efficient way to strengthen the protection level for the city.

We are especially mindful that the coastal wetlands ecosystem is the literal, figurative and conceptual foundation upon which all of these protection and restoration projects will be constructed. The Administration is working with Congress and the State of Louisiana to improve the implementation process for the Louisiana Coastal Area Ecosystem Protection and Restoration Program to include additional authorities for greater programmatic funding and increased opportunities for application of adaptive management decisionmaking.

These same kinds of authorities need to be provided to the Corps and the Secretary of the Army for effective integration of wetlands ecosystem projects with other kinds of protection and restoration efforts, all consistent with the Administration's longstanding commitment to watershed based approaches, to sustainable water resource development.

Mr. Chairman, thank you very much for the opportunity to present today.

Senator INHOFE. Yes, sir. General Strock.

**STATEMENT OF LIEUTENANT GENERAL CARL STROCK, CHIEF OF ENGINEERS, COMMANDER, U.S. ARMY CORPS OF ENGINEERS**

General STROCK. Mr. Chairman, Senator Jeffords and members of the committee, thank you very much for this opportunity to testify before you.

I am Lieutenant General Carl Strock. I am the Chief of Engineers and the Commander of the U.S. Army Corps of Engineers. The U.S. Army Corps of Engineers is responding to the terrible aftermath of Katrina and Rita in the States of Florida, Alabama, Mississippi, Louisiana and Texas in three ways. First, in support of FEMA and the National Response Plan; second, under the support to Federal military response; and third, within our own authorities and responsibility.

Our support to FEMA consists of execution of Emergency Support Function 3, which deals with the provision of ice and water, temporary power, temporary roofing, technical assistance and debris removal. We normally do temporary housing under this Emergency Support Function, but given the magnitude of the effort in this event, that was taken over by FEMA through a special task force.

Through standing planning and response teams, supported by pre-competed contractors, we actually deployed before landfall.

Then following landfall, we expanded our presence as mission assignments came in from FEMA. To date, we have over 3,000 people deployed from across the Corps of Engineers, and we are carrying out mission assignments in excess of \$3.2 billion.

Given the magnitude of this disaster, we are assisted by other Federal agencies, notably the Department of Interior through the Bureau of Reclamation. In terms of our support to Federal response, we provided JTF, Joint Task Force Katrina and Rita, Generals Honore and Clark, an experienced staff of military and civil engineers to help them in the coordination and planning of the military effort. They coordinate the activities of Air Force, Marine, Navy and Army units in their response and support of the recovery.

Within our own authorities, we are operating under P.L. 84-99, and within our navigation missions, we are conducting project condition surveys, we are conducting emergency repairs of flood and hurricane protection systems, we are restoring shallow and deep draft navigation in cooperation with NOAA and the U.S. Coast Guard. This is a critical function that will restore the Gulf Intra-coastal Waterway and the Mississippi River and its tributaries.

We are also planning the restoration of projects to pre-Katrina condition. This will include an assessment of the performance of the system during the hurricanes.

To date, we have transferred \$64 million of our own funding to the effort and we have allocated \$200 million of supplemental funding to both our O&M account and to our Flood Control and Coastal Emergency account. This has been a remarkable effort. Three of our divisions, South Atlantic Division under Brigadier General Mike Walsh, Mississippi Valley Division under Brigadier General Bob Crear, and our Southwestern Division under Brigadier General Jeff Dorko have led the effort. They have been supported by four other general officers from the Corps of Engineers in the response and recovery. Forty of our forty-five worldwide districts have been engaged. Three of them are in Iraq and Afghanistan and were not able to contribute, but all the rest have.

In a situation like this, the New Orleans District was felt to be a victim district. Pre-landfall, we had a plan in which the Memphis district would come in and assume the emergency support functions to the New Orleans area. They have done that very effectively.

We also brought in the Rock Island district to handle the de-watering of New Orleans. This was a pre-planned effort that we knew someday we might have to accomplish. The St. Louis District has Task Force Guardian, which is restoring the levees. So the entire Mississippi Valley Division is engaged in the effort. As always, we rely on our industry partners and the private sector to provide support to us as we carry out our missions.

In summary, the U.S. Army Corps of Engineers understands the urgency of this effort, and we are committed to doing everything within our authority to assist our fellow citizens put their lives back together and to set the conditions for recovery of this critical area. Thank you, Mr. Chairman.

Senator INHOFE. Thank you, General.

Mr. Capka, you and I were talking, it seems as if FHWA is always a quick responder. Remembering very well when Mary Peters was the Secretary after the interstate disaster we had in Oklahoma, she beat me to the scene. So you are keeping up that tradition. You are recognized.

**STATEMENT OF J. RICHARD CAPKA, ACTING ADMINISTRATOR,  
FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT  
OF TRANSPORTATION**

Mr. CAPKA. Thank you, Mr. Chairman, Senator Jeffords, and members of the committee, for the opportunity to discuss the Federal Highway response to Hurricane Katrina.

I am Richard Capka, the Acting Administrator for Federal Highways. Mr. Chairman, I ask that my full statement be made part of the record of the hearing.

Senator INHOFE. Without objection.

Mr. CAPKA. First, we in Federal Highways want to express our sympathies to all those affected by the recent hurricanes and assure all that we are committed to expediting recovery in the devastated areas. We worked closely with other Federal, State, and local officials before and during the hurricane, and we continue to do so.

In discussing our response, it is important to note that through our day-to-day mission activities, our permanent Federal Highway Division Office staffs have developed both excellent first-hand knowledge of their respective States, and strong professional and personal relationships with State and local highway officials. These factors have provided an excellent foundation for an effective, coordinated, and rapid highway disaster response.

As soon as we could re-enter the affected areas, Federal Highway sent in personnel, including staff from outside the affected region, to work alongside other Federal, State, and local officials to help assess the damage, and to facilitate response and recovery efforts. I personally visited the affected areas with Louisiana's Secretary of Transportation and Development, Johnny Bradbury; Mississippi Department of Transportation's Executive Director, Butch Brown; and the Mississippi Highway Commission Chairman, Wayne Brown. While TV coverage, aerial surveys of the bridge and road damage along Interstate 10 and U.S. Highway 90 and other roads certainly tell a compelling story, they really couldn't convey the full impact of the devastation that I witnessed.

I must express my admiration for the State and local highway department and road crews. Despite the fact that many of them suffered great personal loss alongside their community neighbors, those dedicated and undeterred crews began clearing debris, including downed trees and power lines, from highways and bridges as soon as it was safe to do so. Consequently, in less than a day, except in flooded areas and areas of damaged structures, the States had debris removed from the Federal-aid highways to enable ready access for the first responders.

Federal Highway employees worked shoulder to shoulder with the State highway officials to rapidly assess the damage and to shape strategies that would provide the most efficient response. We facilitated in getting Mississippi and Louisiana officials together

with those officials from Florida who had experienced Hurricane Ivan's impacts last year to shape the strategies to address the bridge damages along Interstate 10 and U.S. 90 in Mississippi.

We also worked with the States to expedite procedures to get contractors underway with repairs. Incentives have been effectively employed to ensure quick restoration of lost essential services. For example, Mississippi awarded a \$5.2 million contract to repair the I-10 bridge over the Pascagoula River that had become a traffic choke point on one of the highest priority corridors across the south. The contract included not only an incentive if work was completed in less than 31 days, but also a corresponding penalty for finishing late.

I am very pleased to report this bridge opened early, on October 1, very similar to the experience on Interstate 40 in Oklahoma, almost 10 days ahead of the contract completion date. Senator Vitter, Louisiana is using very similar techniques to restore the bridge at Slidell going into New Orleans.

We strongly support these incentivized contracts, and we are out in the field working closely with States to exercise all appropriate options and tools available during the rebuilding effort. We are working with the Corps and other agencies to ensure that our infrastructure work is coordinated, and requirements are met in ways that will not impede rapid recovery. We are coordinating with the CEQ, the Environmental Protection Agency, the Corps, and other Federal agencies to help streamline the environmental analysis process that must precede long term recovery projects, that will prepare the transportation foundation for long-term rebuilding effort. We will continue to work with the State and local governments to help restore the Gulf Coast as quickly as possible.

Finally, I would like to note that the Federal Highway Administration administers the Emergency Relief Program, which provides reimbursement for States for expenses related to highway infrastructure damage associated with natural disasters and other emergency situations. To date, Federal Highways has provided \$10 million in quick release Emergency Relief funds to Louisiana and Mississippi.

Mr. Chairman, we agree with your interest in financial controls. While quick response is important, we also are very mindful that financial accountability is important, too. Federal Highways has taken specific steps to effectively manage expenditures related to Hurricane Katrina recovery efforts. We will ensure that these funds are spent wisely and that emergency relief projects comply with the Federal requirements.

Mr. Chairman, members, thank you again for this opportunity to be with you here today. I will be pleased to answer any questions that you might have.

Senator INHOFE. Thank you, Mr. Capka.

We will proceed now to two rounds of questioning. I would ask our members not to exceed 5 minutes. I will comply with that myself, so that others will have an opportunity to be heard and to ask their questions.

First I would say, Secretary Woodley and/or General Strock, I know we have a difference of opinion up here at this table in terms of what might have happened in 1977. I just can't let it go by the

wayside when we know in advance that something is going to happen and we don't take the proper action. I would like to ask you if either one of you, it would probably be you, Secretary Woodley, know Fred Caver, Rob Vining, and Joseph Towers, all former career Corps employees.

I understand that today's Corps has not gone back to see, to look at the project that was abandoned in 1977 to see if it could have been better. When a former Deputy of Civil Works and Former Chief of Civil Works Program Management Division makes these assertions, do you believe we should put a significant amount of weight behind their opinion?

Secretary Woodley?

Mr. WOODLEY. Mr. Chairman, certainly I personally know the first two gentlemen you mentioned. The third I know by reputation.

Senator INHOFE. That would be Fred Caver and Rob Vining.

Mr. WOODLEY. Yes, sir.

Senator INHOFE. Yes, sir.

Mr. WOODLEY. I can tell you they are exceptionally distinguished public servants whose service to the Corps over almost a generation would lead me to certainly take any of their views very seriously.

Senator INHOFE. As you look forward, can you think of something that can be done to avoid a situation like this occurring again, any thoughts like that? I think maybe that's more our job than your job, but to see what thoughts you had.

Mr. WOODLEY. I would say, I think it would be very important for us as a Nation to review the process that led to the level of protection that was decided upon and the design that was done and to learn whatever lessons we can from that inquiry. I think it would be very instructive.

Senator INHOFE. Thank you, Mr. Secretary.

Mr. Peacock, I am always concerned about people going back to the scene. We know from experience that after 9/11, now in retrospect, many people did return before it was safe to make that return. The Mayor of New Orleans has begun allowing people back into the city. Do you think he has adequately informed the residents and those who will be coming back of the threat that might be there or the dangers that might be there?

Mr. PEACOCK. Yes, for instance, he has put out, among other things, a two-page list of concerns including environmental concerns. In fact, the second page deals almost exclusively with environmental concerns, providing advice and cautions to people who may be returning.

Of course, he has also limited who may return to particular areas, whether it's daylight hours or healthy adult individuals, for instance. That information is really put together by not only the Mayor, but with the advice of State officials, including environmental officials, as well as EPA and HHS and other Federal officials.

Senator INHOFE. It bothers me a little bit when you say that the Mayor has a report out. How many people will see the report? What other means of communication are being used? I think a lot

of people go back, it's an emotional thing, and they are not going to pay an awful lot of attention to a report.

Mr. PEACOCK. That's right. In fact what I'm referring to is a two-page handout of which thousands and thousands of copies were made and handed out at various places.

You need a panoply of actions to take place. We have used AM and FM radio, television, newspapers, people have gone door to door. The pamphlets have been handed out not only at the relief centers but also, for instance, EPA officials yesterday took brochures regarding mold to the Small Business Administration centers where people can apply for assistance from the Small Business Administration, to make sure it gets in their hands. We are always open to any suggestions for how to get this information out.

Senator INHOFE. The media has been cooperative in conveying these messages?

Mr. PEACOCK. Yes, that's correct. Once again, I think there is room for improvement here, and any suggestions people have, we're all ears.

Senator INHOFE. Thank you.

Mr. Capka, the amount of money we are looking at now in rebuilding infrastructure and roads is unprecedented. As you look at FHWA, do you think we have the resources, do you have the resources to give adequate oversight? There is a lot of discussion about oversight. You heard it in opening statements up here and that reflects my opinion also. What do you think, in terms of resources, what are your capabilities?

Mr. CAPKA. Mr. Chairman, I agree with you, there is an unprecedented amount of resources that will be invested through the highway recovery. We have anticipated the requirement, the oversight requirement, and we have controls in place to ensure that the expenditures of these resources are wise.

Senator INHOFE. You will keep us informed as this might change.

Mr. CAPKA. I certainly will, yes, sir.

Senator INHOFE. Senator Jeffords.

Senator JEFFORDS. Mr. Peacock, on September 17, EPA and CDC issued an environmental health needs and habitability assessment. Most of the recommendations in that report were for actions that should be taken.

How many of these recommendations have been implemented? For example, what is the status of developing short term and long term criteria for return? Do you feel that the EPA recommendations are being followed as re-entry plans are being put into place?

Mr. PEACOCK. That's right, on September 17, there was a task force report which was put together by CDC and EPA. It was not an operational plan, it was a framework for not only the Federal Government but also the State Government and the local government to work within in re-inhabiting New Orleans. That's made clear, I think, in the first paragraph of the report.

Most of those, if not all those recommendations, have been followed. Some of them have been overcome by events. One issue, in particular, is providing information regarding site-specific assessments of the environmental conditions of various parts of the city.

The Mayor decided that portioning the city into zip codes was a logical way of doing that, so EPA and CDC, along with the State,



have provided information through the principal Federal officer, Thad Allen, to the mayor based on zip codes. That's been updated a number of times, I think the last time that was done was late in the day on September 28. If you would like a copy of that assessment, that can certainly be provided to you.

Senator JEFFORDS. I appreciate that, thank you.

General STROCK, what process did the Corps have in place prior to Katrina for providing notice and warning to Federal, State and local officials about the status of the levees before the storm arrived and after the levees failed? Did you provide notice of levee failure when it occurred? Was your notice process used effectively, and have you made any changes in the process as a result of Katrina?

General STROCK. Sir, pre-disaster, we have an agreement with the local levee and drainage boards that actually operate and maintain the system. It's their responsibility to maintain its design configuration. We inspect those works annually and work with the locals to bring those up to standard where we find challenges.

So we do understand what the condition was prior to landfall. The local authorities also understood that condition. I think it was very clear to everyone from the beginning that we could not guarantee anything beyond a category 3 level of protection.

After the event, sir, we have conducted extensive project condition surveys. In fact, that is one of the criteria that Mayor Nagin is using to determine when to go back in. There are two hazards that really remain right now. One is the pumping system of New Orleans, it is severely degraded, especially in the Orleans East Parish where about 40 percent of the pumping capacity is available. So they are vulnerable to heavy rain events that could put as much as 6-feet of water back into the city. The other is vulnerability to any kind of storm activity. Even a tropical storm could present a problem.

As we saw in Hurricane Rita, we expected a 3- or 4-foot storm surge and we got about an 8-foot storm surge. We have now put 10-foot protection into all the repairs in the vicinity of New Orleans. So we are working very closely with the local authorities so they do understand the risks. In terms of reporting the breach in the levee, like everyone else in New Orleans, we conducted a mandatory evacuation. We had a very small staff in our district office. They made attempts to get out and follow up on a reported levee breach at 17th Street Canal, but were unable to get to it by land, and eventually once the weather cleared, were able to assess the situation from the air. By that time, it was very difficult, probably impossible to reverse that particular breach.

I don't know for sure, sir, I could find out for the record exactly when and who we notified of that breach condition. We later learned there were breaches, of course, in other parts of the levee system that we had followed up on and worked with the locals to assess and repair.

Senator JEFFORDS. I would appreciate that, if you would follow up on that.

General STROCK. Yes, sir.

Senator JEFFORDS. Mr. Peacock, how is EPA documenting the air quality effects of the fuel waivers granted?

Mr. PEACOCK. As you are aware, a number of fuel waivers have been granted. Most of them, I believe, have sunsetted, although a low sulfur diesel waiver was extended, I think, to October 25 for some States in PADD III.

We are continuing to look at what the air quality effects may be. As I think has been mentioned before, as long as these are short term in nature, there should be minimal effect on air quality. The one concern with the diesel waiver would be over a period of time you might start having mechanical problems with the engines but as long as these are kept short term in nature, that should not be an issue.

Senator JEFFORDS. Thank you. Thank you, Mr. Chairman.

Senator INHOFE. Thank you. Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman.

I wanted to ask Secretary Woodley and General Strock some questions about the levee system, which is an obvious focus. What is the current state of your understanding about the actual strength of Hurricane Katrina when it reached those areas where we had problems and breaches?

Mr. WOODLEY. Sir, it is my understanding the National Weather Service characterized Katrina as a category 4 when it hit landfall at Head of Passes, the lower part of the basin, category 3 when it hit Mississippi. So between a category 3 and 4. The question, is what sort of storm surge you had in Lake Pontchartrain. Because that storm surge builds as the hurricane approaches. So the real question is, what was the storm surge in Lake Pontchartrain. We lost a lot of gauges in this process, and I don't know that we know the full answer to that. That will be an important element in our forensics on assessing the performance of the system.

Senator VITTER. In terms of the overall strength, category 4 at Head of Passes, why don't you explain for the committee where that is. That is basically the outer tip of the outer mouth of the Mississippi, right?

General STROCK. Yes, sir, it is the mouth of the Mississippi River where it enters the Gulf of Mexico. It is 116 miles by river from New Orleans. That is one of the challenges. New Orleans is 116 miles on the riverside from the sea. It is on the sea, essentially, on Lake Pontchartrain.

So here is Head of Passes, down here, sir. Category 4 there, category 3 here. It is the storm surge in Lake Borgne and Lake Pontchartrain that really put the stresses on the levee system.

Senator VITTER. That storm surge was created closer to the time you are describing it hitting Mississippi than closer to the time it hit Head of Passes, isn't that correct?

General STROCK. Sir, I would have to defer to the weather folks to answer that properly. Yes, the surge builds as the hurricane approaches. Hurricane Rita passed 200 miles, over 200 miles from New Orleans, but we have an 8-foot surge in Lake Pontchartrain just from Hurricane Rita—I'm sorry, in the Inner Harbor Canal, sir.

Senator VITTER. The design standard for the overall system is category 3, right?

General STROCK. That's correct, sir. I might add, it's understood that the categorization of hurricanes occurred in 1975 with the

Safer-Simpson scale. These projects were actually designed for what is called a standard probable hurricane, a set of wind, barometric pressure and storm surge that describes the kind of storm we might expect in this area, provided to us by the National Weather Service some 40 years ago.

Senator VITTER. Has it been updated in 40 years in terms of the sort of storm surge in particular you might expect?

General STROCK. To my knowledge, sir, I don't know that the expectation of frequency has been updated. The standards to which we designed against have not been changed since the early part.

Senator VITTER. Is there a specific storm surge standard to which this was designed to?

General STROCK. Sir, I believe this was designed for an 11½-foot storm surge. Hence, we had levee walls in some places that were as high as 17 feet to account for a factor of safety and wave action.

Senator VITTER. What's the best information you have as of now about whether any levee was in fact overtopped or not?

General STROCK. Clearly, sir, we had significant overtopping of the St. Bernard's levee up along the Mississippi River, Gulf Outlet. That was clearly overtopped. We have some debris fields that would indicate levees along Lake Pontchartrain were overtopped.

I don't know the answer to the question about the levees on the 17th Street, London Avenue. I believe the Inner Harbor Canal, I think we're fairly certain that that levee was overtopped as well. That will be a part of our study, sir, by looking at debris fields and high water mark and so forth, when we get into this.

Senator VITTER. For that study, with regard to exactly what happened, was it overtopped? If so, where? Did it just fail in some places? What's your time line for that study?

General STROCK. Sir, we hope to get that done in a relatively short period of months to get that kind of initial forensics done. It is an urgent question, because as we try to restore to pre-Katrina conditions, we want to ensure that we are not putting in any kind of a flawed design. So we are very interested to see whether the system performed as designed or whether there was some problem with our design that caused these breaches to occur.

Senator VITTER. Do you have a number of months in mind, in terms of a schedule? Do you have a number of months in mind?

General STROCK. For the study, sir?

Senator VITTER. Correct.

General STROCK. No, sir, there are so many variables involved, I think we will take it sort of one step at a time. We are mobilizing the very best and brightest to do this. Our Engineering Research and Development Center from Vicksburg, MS is involved. We have hydraulic engineers, structural engineers and those sorts of folks. We have the American Society of Civil Engineers helping us with peer review and oversight. The National Science Foundation has been engaged and we are working with various academics around the country to enhance our efforts, sir.

Senator VITTER. I'm a little concerned that there is no set schedule that this is going to be pushed and pushed. The announced schedule to even get back to pre-Katrina protection is next June, which is the beginning of the next hurricane season.

General STROCK. That's correct.

Senator VITTER. So that means if it slips at all, it goes into the next hurricane season.

General STROCK. That is correct, sir.

Senator VITTER. That is a huge concern of mine.

General STROCK. Yes, sir, and that's one of the reasons we are really trying to limit the scope of this study not to evaluate alternatives and that sort of thing, but look at the performance of the actual system in place with the known stresses we had, limit that, so that we can make sure that we are doing things right as they are put back in place.

The urgency is such that we must know that before we can begin letting contracts for the final repairs. That is in the next couple of months, we have to get these contracts moving to make a June 2006 deadline.

Senator VITTER. When you say by June get it up to pre-Katrina protection, what does that mean exactly? I hope it means correct any design deficiencies.

General STROCK. Yes, sir.

Senator VITTER. I hope it means take account of a more significant storm surge, if in fact a category 3, which is, I believe, what it was when it hit these levees, completely overwhelmed the system.

General STROCK. Sir, I think we certainly need to understand if there is more likely frequency of that kind of a storm surge. The reality is, though, I think we will be working very hard just to put the system back in the way it was prior to Katrina. The business of even constructing levees is a difficult one because of the foundation soils and their sensitivity and our ability to, it is weather-dependent and all that sort of thing. I think that at best, we will be able to put it back to pre-Katrina conditions, subject to any design corrections we need to make. We will certainly make those.

Senator VITTER. Thank you.

Senator INHOFE. Thank you, General Strock.

Senator Boxer.

Senator BOXER. Thanks, Mr. Chairman.

In terms of the health issues, I wanted to talk to Mr. Peacock about this. When I look at the CDC report, they list the top 10 conditions that exist in the people who are exposed to some of these materials and it looks to me, and I will read what they are, 6 of the 10 appear to be symptoms from a possible toxic exposure whether it's obstructed pulmonary disease, rash, flu-like illness like pneumonia and so on, diarrhea, other things that are listed here.

Therefore, to me, what's really important is this, that we be honest about it, because people are, in America, they expect that from us, and that we fix it. That's what I'm about, fixing it.

I want to know how we fix these problems. Instead of arguing whether what's it called, is it a toxin, is it an infectious element, it doesn't matter to me. Call it anything you want. People have these exposures, six people died. We want to make sure people are safe, kids are safe, everyone. We all agree with that. We might disagree with what's causing it. That should be based on science.

As the Ranking Member of the Superfund Subcommittee here, I have great concern about these Superfund sites. It's my responsibility to the people in the affected areas, as well as to my own peo-

ple who care a lot about this. California was the biggest private donation State in the Union, I am proud to say to my colleague, how much the people care. So I am stepping up to the plate.

Here's the thing. When I spoke to Mr. Johnson about this matter, and it's documented, he said, "all the Superfund sites would be tested." When pressed, he said, "he could not give me a date". I'm a little alarmed at your testimony, because you said they will be tested as needed. What does that mean? Why aren't we testing these Superfund sites yesterday, so we can clean them up and make sure that the people are safe?

Mr. PEACOCK. First of all, because Rita also came through and affected some of these sites, let me put Katrina and Rita together.

Senator BOXER. Well, I just want you to answer my question. I don't need to go back.

Mr. PEACOCK. There are 54 sites in the Katrina-Rita area.

Senator BOXER. Will you be testing all of them?

Mr. PEACOCK. No, we won't. There have been initial assessments at all but two of these sites. One is still flooded, so we haven't been able to get access to it. The other, which I believe is in Texas, we have not been able to get access to.

Senator BOXER. So two sites you haven't got access to, and you do not plan to test the Superfund sites, all of them?

Mr. PEACOCK. There are 15 sites we have done the initial assessment of, which is a visual inspection, including, for instance, opening up groundwater piping. We will not be doing soil samples at 15 sites in Texas. The experts, the engineers and the scientists, both the State and EPA who go out to these sites, and particularly the State people know these sites well, may make an initial determination that soil samples are not necessary on those 15 sites. In Texas they have already made such a determination. It's simply because they are in an area that was not hit as hard by the storm as expected. They may be in a county that was declared a disaster, but their expert opinion is the site does not require—

Senator BOXER. How many Superfund sites will you be testing thoroughly in the region?

Mr. PEACOCK. Of the 54, we will not be testing 15, but we will be testing all of the remaining sites.

Senator BOXER. I'm confused. Are you testing the Superfund sites that were impacted by the hurricanes and when will that testing be completed?

Mr. PEACOCK. There are 54 sites that were in the area of Katrina and Rita. All—

Senator BOXER. You have said that now three times.

Mr. PEACOCK. Yes. All have been—I am trying to organize this so there is no misunderstanding.

Senator BOXER. I get it. I understand that.

Mr. PEACOCK. So you have the 54. All of the sites have been visited for an initial assessment.

Senator BOXER. I didn't ask about initial assessment. How many Superfund sites—

Mr. PEACOCK. Thirty-nine of the—

Senator BOXER. Excuse me, let me ask it again. How many Superfund sites in the area that was affected by Hurricane Katrina and/or Rita will be thoroughly tested by the EPA and when?

Mr. PEACOCK. Thirty-nine of the fifty-four sites will have soil samples taken.

Senator BOXER. OK, and when will that be?

Mr. PEACOCK. Twenty-one of those sites have already had soil samples taken. Eighteen, that's the remaining eighteen of the sites, will have soil samples taken and I will have to get back to you with the—

Senator BOXER. OK, of the sites that you've already tested, I believe you said 39?

Mr. PEACOCK. Thirty-nine of the sites will have soil samples taken.

Senator BOXER. Will have. When will that be?

Mr. PEACOCK. Twenty-one of the thirty-nine have already had soil samples taken. In some cases that includes water samples, like at the Agriculture Street site.

I believe of the remaining 18, we are continuing to take soil samples. I will look to see when we will have soil samples of all of those. But again—I will check.

Senator BOXER. On the 21 sites that you have completed testing on, what do they show?

Mr. PEACOCK. So far, we have shown no rupture of liners or caps.

Senator BOXER. Good.

Mr. PEACOCK. We have been to the Ag Street site at least four times now, I think it's more than that. We're not sure, but we haven't seen any rupture thus far or any release.

Senator BOXER. You're not sure of—

Mr. PEACOCK. As we go back to these sites, we are going to continue to monitor whether or not there has been a release. Because you can go back and you can do a soil sample, but as the groundwater goes down, you're not sure what may happen to what's inside the contents of the site. So we're going to stay on top of it.

Senator BOXER. Mr. Chairman, I'm concluded.

Senator INHOFE. We're going to have another round.

Senator BOXER. Well, I'm concluded. I just want to finish my thoughts, so I understand.

So just so I understand, the 21 sites you've concluded, but you're continuing to monitor and the 18 sites you don't know when they'll be done.

Mr. PEACOCK. That's correct. I'll get back to you with a date on that.

Senator BOXER. Thank you.

Senator INHOFE. If you would rather take another 5 minutes—

Senator BOXER. That would be wonderful, can you spare another five?

Senator LAUTENBERG. It's a little problem for me.

Senator BOXER. I'll wait.

Senator LAUTENBERG. OK.

Senator BOXER. Thank you, Mr. Chairman.

Senator INHOFE. Senator Lautenberg.

Senator LAUTENBERG. Thanks very much, Mr. Chairman.

Mr. Peacock, I wanted to ask you a question. The handout that you gave, you talked about the status of municipal wastewater systems. The number of those that are operating is quite high. I have to ask you, now, are they operating with full secondary treatment?

Mr. PEACOCK. No. If it shows as operating on there, it means that you are getting—

Senator LAUTENBERG. That the power is on and the—

Mr. PEACOCK. That's correct, and you're getting some treatment, but it may not be all the way through secondary treatment.

Senator LAUTENBERG. So do we know what the consequence of that is as a result of an evaluation of the quality of the drinking water? Because that's the kind of water that feeds into the river and into the other sources.

Mr. PEACOCK. Right. The other thing I want to point out, Senator, is even if it's operating and looks great, it may have bandages and rubber bands and baling wire holding it together right now. So we, the Corps, EPA, the State, and, I believe, others, have assessment teams that are going through each of those plants to determine what specific problems they may have.

Senator LAUTENBERG. So there is not an assurance that we can take from that that people who have drinking water being supplied from the system are getting water that's not contaminated?

Mr. PEACOCK. Yes, I'm sorry, I thought you were talking about wastewater. The drinking water plants—

Senator LAUTENBERG. OK, but then that wastewater treatment then furnishes supplies the water through which further—

Mr. PEACOCK. I see what you're saying. Yes, the drinking water plants, in this case, the data we show, if it's operating, it is meeting all the drinking water standards. What's going into the plant, I don't know, but certainly what's coming out of the plant is potable and can be consumed without, for instance, being boiled.

Senator LAUTENBERG. But the red area is that which is operating with boiled water?

Mr. PEACOCK. Water advisory, that's correct.

Senator LAUTENBERG. So that advisory is there because the water there is still of some concern?

Mr. PEACOCK. That's correct. That's reason for concern.

Senator LAUTENBERG. It's over 700,000 people?

Mr. PEACOCK. That's correct. That includes a large portion of New Orleans.

Senator LAUTENBERG. General Strock, the way we get information here sometimes has to go outside of conventional channels. We hold hearings and we try to stay on top of oversight responsibilities. But every now and then, we have someone who has the courage to come out and talk about problems as they see them, and you know where I'm going with this, General, and that has to do with Ms. Greenhouse.

I think that it was your instruction that she be demoted, but there was an order by the Acting Secretary of the Army that asked for suspension of any action on her until the Inspector General had finished his inspection. Is that the case?

General STROCK. That is the case, sir.

Senator LAUTENBERG. OK, then why did you move ahead with the demotion?

General STROCK. Sir, the Secretary of the Army evaluated the case and rescinded that order and gave me the authority and instructed me to proceed with that process.

Senator LAUTENBERG. You're familiar with her history of service?

General STROCK. Yes, sir, I am.

Senator LAUTENBERG. That she'd been promoted a number of times for excellent service?

General STROCK. Yes, sir.

Senator LAUTENBERG. Did she suddenly turn less efficient, less qualified, when the inquiry came about with our expenditures in Iraq and so forth?

General STROCK. Sir, I have to be very careful not to get into personnel matters on this thing. There was, and my association with the period of time you're talking about, from approximately 2003 when we went in to support the global war on terror, sir, I think the, I know that the action taken was unrelated to any allegations of wrongdoing or any concerns that have been expressed by our Principal Assistant for Contracting. It was unrelated to any allegations made in those confines.

Senator LAUTENBERG. So would you say she was performing satisfactorily in those areas?

General STROCK. Sir, again, I have to be very careful about where I get in terms of personal information on an employee of the Government. She is still an employee of the Government. I would rather not answer that question unless I have to.

Senator LAUTENBERG. I would imagine, I would think so, because it's hard, if you look at the profile, the history, to see that suddenly this loyal and trusted staff person suddenly turned out to be someone that we had to punish. I mean, because there is a punishment, obviously.

General STROCK. Sir, if I could just respond in a more direct way here, I think I owe this to you. I won't talk about the individual, but I can talk about the process. The process is that if a member of the Senior Executive Service gets a less than satisfactory performance evaluation in any 2 of a 3-year period by statute that individual must be removed from the position. That is the condition, that's the process and how it works.

Senator INHOFE. Time has expired, Senator Lautenberg.

Senator Carper.

Senator LAUTENBERG. Mr. Chairman, just a second more for clarification, please.

Senator INHOFE. I'm not going to let you do that. I think it's inappropriate to talk about personnel issues in an opening hearing like this, and I don't think it's appropriate.

Senator LAUTENBERG. Chairman, it's a source of information. The fact is that if we approve recrimination to be visited upon someone who wants to tell us what they know, I think that closes down sources and intimidates people, which is exactly what took place.

Senator INHOFE. Thank you, Senator Lautenberg.

Senator Carper.

Senator CARPER. Good morning, gentlemen. Good to see you. Secretary Woodley, especially good to see you. I will always remember the time you came to Delaware, stood with us on those beaches.

Mr. WOODLEY. Yes, sir.

Senator CARPER. More pleasant times than what we've been through of late.

I apologize for just arriving. We just wrapped up a hearing with David Paulson, who is the acting FEMA Administrator, who was



in to testify before our Committee on Homeland Security. So I've missed your statements.

I think what I'd really like to ask each of you, just to help me the most, is, and I'll just start with you, Mr. Peacock, takeaway, give me a good takeaway from this hearing that you would really want me to take to heart and to remember. Then I'll come back and ask some more specific questions.

Mr. PEACOCK. I will make it specific to EPA. I don't know how much you know about track, but there are sprints and there is long distance. This is a case for—

Senator CARPER. I'm a long distance runner. Never that good in a sprint.

Mr. PEACOCK. Well, I was a 440 yard runner, but now 400 meters, I guess. We've been through a sprint and now we're starting a marathon. We had an initial response where we have collected information on flood waters and sediment, particularly in New Orleans and looking at, for instance, Superfund sites in a broader context. But now we're getting down to the point where, particularly in the city of New Orleans, we are going to have to do some careful environmental monitoring. In Lake Pontchartrain, Mississippi River and the Gulf, we are going to have to do some environmental monitoring to make sure the long term effects of what has happened are known and can be responded to as necessary.

We are now in this conversion, I think, from sprint to marathon.

Senator CARPER. Good. Thanks.

Secretary Woodley.

Mr. WOODLEY. Senator, I would like you to remember that the work of protecting this community and any other community in America against the scourge of flood is ongoing work. A never-ending task, a monumental task. That's the task that we were engaged in at Rehoboth, protecting that community against a very similar threat, in many ways. We protected it in a different way because of the difference in the hydrology, the difference in the threat. We protect St. Louis, MO in a different way, Kansas City, MO in a different way, Grand Forks, ND, in a different way.

But it is something that the Nation has to recommit itself to at this time and in response to this crisis, to this tragedy.

Senator CARPER. Thank you. General Stock, how are you?

General STROCK. Fine, sir.

Senator CARPER. A good takeaway for us, please.

General STROCK. Sir, I believe that the National Response Plan that has evolved from the Federal Response Plan is a good, solid plan. It's proven itself as late as the hurricanes of last year in Florida. I have full confidence that we can, not only did we respond in an adequate way to this, but that we will in the future.

Senator CARPER. OK. Please, sir.

Mr. CAPKA. Yes, Senator. Two points. In terms of the recovery from a Federal Highway perspective, the first is the pre-existing knowledge that our in-State staff had of the State and the infrastructure, plus the relationships that had been established over time, were essential to the quick response that we had. Second, being able to apply the lessons learned that we had captured in previous hurricane seasons, most notably Hurricane Ivan in Florida, but also the recovery of the I-40 bridge in Oklahoma, were key

in assisting Mississippi and Louisiana to shape their strategies for recovery.

Senator CARPER. All right, thanks.

Mr. Woodley, when we were together at Rehoboth Beach, and in our State, we worry probably as much about nor'easters as we do about hurricanes. They come in and they tend to have winds almost as strong as hurricanes. They destroy our beaches, destroy the dunes, waters roll into the communities, destroy homes, businesses and that sort of thing.

We've worked with the Army Corps of Engineers to replenish the beach, to pour in a lot of sand off the coast, and replenished the beaches to create dunes, and to grow grass on those dunes in an effort to try to make sure that when the next storm hits we will be ready to fight it. We have a much different approach down in Louisiana, in New Orleans.

Here's my question. I've earlier thought of the levees that are around New Orleans, in that part of their State, that the levees were the key to protecting New Orleans. I think of them as the first line of defense. The more I learn about it and I learn about the wetlands that have been eroded and gone away and how they might be restored, I'm not so sure that the levees are the first line of defense.

Are they the first line or really maybe the second or third line? This could be for you or others as well.

Mr. WOODLEY. Protection of New Orleans from storm surge due to hurricanes is very complex. This event itself, one of the things I learned when I was there is it was itself a very complex event. Some of the generalizations that have been heard and been reported are true only as to a portion of the area.

A hurricane like Katrina in which the path of the hurricane came up through Plaquemines Parish and then made a second landfall in southern Mississippi presents an entirely different challenge that one that would come up through either Morgan City or Houma, across the wetlands that we are losing. So there is no single answer, and both have to be addressed.

The question of the surge that comes across from the Gulf through Lake Borgne into Lake Pontchartrain and strikes the city from the north is obviously dangerous, and that's what happened. The surge that might come across these wetlands, if they are sufficiently degraded, that they no longer protect against that kind of surge, from the south and west, must also be addressed.

Senator INHOFE. Let me interrupt just a minute. Why don't you just go ahead and take your second round at the same time, so you won't lose your train of thought? Would you like to do that?

Senator CARPER. That would be great, thanks very much, Mr. Chairman.

Let me be more specific in my question. I'm trying to understand the role of the levees around New Orleans. Were they a primary defense or a secondary defense as it turns out?

Mr. WOODLEY. With respect to the surge, I should defer to the engineers.

Senator CARPER. Feel free. Jump in.

Mr. WOODLEY. My understanding is they were the primary defense with respect to the surge that was experienced, they were the primary defense.

Senator CARPER. OK. Others, General Strock?

General STROCK. That's correct, the Secretary got it right. That's correct for the levees on the Lake Pontchartrain hurricane protection side. They are the first line of defense.

Senator CARPER. Talk about the other lines of defense, if you will.

General STROCK. Well, sir, there's the natural line, as the Secretary indicated, for a storm that tracks west of New Orleans, you have a different dynamic on that storm. The loss, the coastal erosion that we're experiencing down there, look at it graphically there, this storm tracked up through here, sir. I don't believe that the loss of the wetlands down here would have influenced the performance of the levee system or the storm in this case.

But a storm that tracks this way, because the hurricane winds go in a counter-clockwise way, causes the storm surge out of the Gulf straight into those wetlands, and they act as a buffer to dissipate the energy of the storm. They would serve as a portion of the protection of New Orleans from that side. But you still need a series of levees in here to protect New Orleans and the lower parishes there.

Senator CARPER. Do I understand that some of the levees held, some didn't, the earthen levees did a better job of holding than maybe the concrete levees? Just take a moment and share that with us.

General STROCK. Sir, that's hard to really talk about. Each situation is a little bit different based on the nature of the stresses these levees underwent.

As you can see here, the large levee on the north side of Lake Pontchartrain had significant overtopping. So that's how the water got into that particular cell there. In the Inner Harbor here, we had failures of flood walls. I should say breaches of flood walls. I draw that distinction because a failure is when something doesn't perform as designed and we don't know that yet. We know we had breaches. We don't know the mechanisms of those breaches there. Then in the canals, we also had, which are different situations, we had some breaches.

So each one is a little different situation we will have to analyze. Clearly there was overtopping. There was especially overtopping down in Plaquemines Parish where we got a significant storm surge out of Breton Sound here, that overtopped these levees down in Plaquemines.

Senator CARPER. Many of the Corps' calculations, as I understand it, regarding how to build levees to protect New Orleans from a category 3 hurricane were done, I think in the 1960's, is that correct?

General STROCK. Sir, the initial plans were developed in the 1960's. These actual projects were designed and built in the 1970's onward and are still under construction.

Senator CARPER. Since then, a fair amount of additional wetlands have been lost?

General STROCK. Yes, sir, certainly since the 1960's, there has been a loss of wetlands, as was stated before, about a football field every 38 minutes. But again, that's the south and west of the city.

Senator CARPER. I think there was a report done, I want to say by the Times Picayune a couple of years ago, and their report called Washington Away, which I think you may have just alluded, showed that the risk might now be twice as large as the Corps estimated several decades ago. Let me just ask what you might have done, if anything, to update your assumptions in that regard. Has there been some attempt to review or update similar assumptions regarding the design of other flood control systems around the country?

General STROCK. Sir, I don't know whether we can draw any conclusions from this relative to other flood control systems around the country. Specifically, where southern Louisiana is concerned, there is the Louisiana Coastal Area project, which includes not only environmental restoration but also additional flood protection. There are a number of flood protection projects that are proposed and underway, New Orleans to Venice, Morganza to the Gulf and some others down in that area, that are informed on the loss of coastal wetlands.

Senator CARPER. Thanks, Mr. Chairman.

Senator INHOFE. Thank you, Senator Carper.

Senator Boxer, in your absence, when you had to step out, Senator Carper elected to take his two consecutive times, so we will start our second round of questioning now. Let me ask you, Mr. Capka, when we passed SAFTEA, we had a provision in there for emergency relief and reconstruction, it was a limit of \$100 million. Obviously that's not going to do it. The bill specifically states that anything over \$100 million will not be taken from the Highway Trust Fund, but will come out of the general fund.

Do you have anything you want to share with us as to how the Administration is preparing to pay for your part of this in Highways?

Mr. CAPKA. Well, sir, the source of funding for the emergency response requirement that we're going to have has really not been determined. I do know that I can say that the Administration looks forward to working with Congress in sorting that out.

Senator INHOFE. I bring that up, I think Senator Bond made it very clear that there is an issue here when we're dealing with the Highway Trust Fund. I even call it sometimes a moral issue, we talked about that. So it's going to be a problem.

Senator Thune had to leave, and in his opening statement, all of you might recall, he was talking about S. 1761, the Gulf Coast Recovery Act. I am a co-sponsor, Senator Vitter is, and some of the others are. I would like to ask if you have any comments to make regarding that legislation, any one of you.

Mr. PEACOCK. As you know, Senator, it deals with contractor liability, particularly with the cleanup of debris. This is an issue the EPA has run into in the past in Superfund and RCRA context. As we have and continue to look at whether or not there is any legislative authority that may help us and remove barriers in responding to this tragedy, it is one of the bills we're looking at. We will cer-

tainly let you know if it's something that we think should be pursued.

Senator INHOFE. Yes, we would like to know that. We would like to have input from all of those dealing with any part of this disaster concerning the plethora of legislation that's been introduced. You are on the ground and we need to have your opinion on it. I will forego the remainder of my time, since we are running close, and recognize Senator Jeffords.

Senator JEFFORDS. Mr. Peacock, I'd like to talk about waivers. I would like to submit for the record a 13-page list from FEMA's web site of Government waivers and discretions that have been authorized post-Katrina. Can you describe why you believe that the EPA may need additional authority to waive environmental statutes to recover from this disaster, when you have not needed additional authority to recover from any of the other over 100,000 disasters that have occurred since the Stafford Act passed in 1974, including Hurricane Andrew, September 11 and the trio of hurricanes that hit Florida last year?

Mr. PEACOCK. Thank you, Senator, that actually helps clear up what may be a misunderstanding that Senator Lautenberg mentioned before. The Administration has not proposed any additional authority, legislative authority or otherwise, up to this point, regarding waivers of environmental statutes. Once again, it is something we have been considering since the beginning of this, both Hurricane Katrina and then Hurricane Rita.

We have not proposed anything to the Congress regarding waivers or discretion regarding environmental statutes. That doesn't mean we won't continue to look at whether or not there are any barriers that need to be overcome. But we have not proposed anything along those lines.

Senator JEFFORDS. Mr. Capka, a question on evacuation routes. Mr. Capka, after Hurricane Ivan in 2004, and more recently Hurricane Katrina, it is clear that much more work remains to improve the evacuation procedures in the Gulf region. What, if anything, is the Federal Highway Administration doing to aid in the facilitation and coordination of interstate evacuation plans?

Mr. CAPKA. Thank you, Senator. There has been a lot of work done, particularly since Hurricane Floyd a number of years ago, with respect to evacuations. Federal Highways, in particular, is a leading member of the Evacuation Liaison Team that operates within the FEMA structure.

This team has been put together primarily as an information facilitating group that not only passes on information regarding weather and impacts that might stimulate an evacuation, but also communicates between States so that evacuations, as an example, the contra-flow in Louisiana was coordinated with Mississippi, to ensure that from a regional perspective those evacuations would work.

There is certainly a lot more that needs to be done in terms of evacuation, and certainly we, as well as a number of other agencies, have learned from the two events, Rita and Katrina. I would also say that the decisions to evacuate are local decisions. Each State is a little bit different, whether it's the Governor or whether it's at a more local level that evacuations are called.

So it is an interagency effort, a number of different levels of government and decisionmaking would need to be pulled into that process.

Senator JEFFORDS. Mr. Peacock, people returning to the New Orleans area will be facing health risks within their own homes and mold and materials that were left there when the flood water receded. What is EPA doing to determine whether it is safe for people to re-occupy their houses?

Mr. PEACOCK. That's a good question, it goes to Senator Boxer's point before regarding some fact that we have some people that may be showing some response to environmental conditions or other conditions. Once again, EPA's role, along with CDC, and other Federal entities is to provide assessments and information regarding conditions in the city. We have been doing this by zip code area to the principal Federal officer, Thad Allen, as well as the Governor and State officials, and then also the city.

It is always important to keep in mind these are not just conditions regarding environment as well as health, but, for instance, the conditions of the levees in the city, the conditions of hospitals in the city, because if people start having accidents, such as traffic accidents, they will need to be taken care of. So there are a number of conditions which the Federal Government broadly has been advising the city on.

Senator JEFFORDS. Thank you, Mr. Chairman.

Senator INHOFE. Thank you, Senator Jeffords.

Senator Boxer.

Senator BOXER. Thanks, Mr. Chairman.

I just want to thank Senator Carper for raising that issue of the wetlands, and again, Lieutenant General Strock for his comments. As we look for efficient ways to prevent these hurricanes, we know that wetlands, just God's way of helping us out. Unfortunately, we didn't pay much attention to that in this country, we've lost so much of our wetlands in my home State and across the country. So I think that's something this committee needs to focus on.

Mr. Peacock, thank you for being patient with my questions. I'm just a bit confused still on the Superfund testing and I want to make sure I understand it. In your testimony, indeed, you said, sampling has been conducted at 9 sites in Louisiana and 12 sites in Texas, and the data is currently being evaluated. Is that on those sites the data is currently being evaluated? Or has the data already been evaluated?

Mr. PEACOCK. Well, the data, for instance, I know that for the data on the soil samples on the Ag Street site, we have preliminary results back. So to some extent, particularly the soil samples on the Ag Street site, we do have results back. I believe the other soil samples are still being looked at.

Senator BOXER. OK. So we are not yet done in terms of evaluating these 21 sites, plus we have another 18 sites.

Mr. PEACOCK. That's exactly right.

Senator BOXER. OK. Would you be willing to send to this committee the results of your work on a timely basis?

Mr. PEACOCK. From day one, our policy is to—

Senator BOXER. Yes is good enough.

Mr. PEACOCK. Yes. Quality assured data should be released to the public, of course, as well as to you.

Senator BOXER. Yes is good enough. Because we need to know this information.

Mr. PEACOCK. Yes.

Senator BOXER. I want to talk to you about something I raised in my opening remarks that deal with the information to the public. It is a little disturbing to me again, you would agree that benzene is a known carcinogen, would you not?

Mr. PEACOCK. I know benzene is not something you necessarily want to be around at high doses for any period of time.

Senator BOXER. OK. Well, just so you know, the Agency for Toxic Substances says it can cause leukemia, that's cancer, and anemia, drowsiness, dizziness, unconsciousness, bone marrow effects, very dangerous. What you're doing on your site is, you're showing what the dangerous amount of exposure is for a 24-hour period. Yet people are going back there for longer. The only people who are there for 24 hours are members of the Senate, except from the Senators from Louisiana, Mississippi and the others, the President, the Vice President and the VIPs.

But your workers who are there, your workers who are there, Lieutenant General Strock's and the Honorable John Paul Woodley's folks are there, and probably your folks are there. They are there for more than 24 hours.

So my concern is that the numbers you're showing are in violation, or shall we say, of the standard, because they're at seven and the 2-week exposure is four for benzene. So I'm concerned and I am going to ask you, would you revise this or do another table to say, on the 2-week exposure level, this is what is safe, and show what the exposure level is? Because it is exceeding on benzene the 2 week exposure.

Mr. PEACOCK. Right. Eric Olson brought this to my attention a few days ago. As you pointed out, we have 1,200 EPA contractors and EPA personnel in the field. It doesn't make sense if you have a level from an air monitoring bus that says you're over the 2-week level, isn't that of concern? So we went back to the scientists at CDC and EPA. They are the folks that determine the appropriate standard.

The answer is, there are two things going on——

Senator BOXER. There's already a standard. It's not a question of what is the appropriate standard.

Mr. PEACOCK. There are two standards——

Senator BOXER. The question is, why aren't you listing the 2-week exposure level that is safe, rather than the 24-hour exposure, which only protects us when we go down there for a photo op or a press conference? We think we're experts too.

Mr. PEACOCK. There are two reasons for that. One is, the data is from the TAGA bus, that's the bus you saw earlier, which takes snapshots, it is not a continuous monitor.

The second is, the levels of benzene are transient. What happens is the TAGA bus goes back when it sees an elevated level, takes another snapshot, and what you essentially get are blips. There is not a consistent level of benzene in the air.

Senator BOXER. Are you telling me that you cannot get for us the 2-week exposure? Because my understanding from your people that I've talked to is that it is possible.

Mr. PEACOCK. No. What I'm telling you is, when this was brought to my attention, I went back to the scientists and said, "Why did you choose the 24-hour level to use as the measure of risk, acceptable risk, or as the measure of risk against the 2-week standard?" They believe the 24-hour standard is more appropriate. That's on a scientific basis.

Senator BOXER. Well, you haven't sampled for the 2 weeks. I'm asking you, will you sample for the 2 weeks?

Mr. PEACOCK. Yes, I understand what you're asking now.

Senator BOXER. Will you change it on the Web site, so people know if they are there for 2 weeks, perhaps there is too much benzene?

Mr. PEACOCK. Yes, we are going to put continuous monitors up throughout the city.

Senator BOXER. So you will make the change on your Web site when you have the information, or you will add that to your Web site?

Mr. PEACOCK. We already have some continuous monitors up. That data will be put on the Web site, and the additional monitoring data will also be put on the Web site.

Senator BOXER. For the 2-week level. I would appreciate it if you would let this committee know when you are about to do that. Because I think, look, I want to see this area rebuild, and I am ready to do whatever it takes to do it, support my colleagues from the region. We have to make sure people are safe.

So we need to solve the problem, which leads me to my last question, and that deals with this sludge that's left behind. I guess you would agree there's sludge left behind, is that correct?

Mr. PEACOCK. It's sediments, there's actually a—

Senator BOXER. Well, sediments, that's fine, we can call it sediments. I would ask unanimous consent to place in the record a statement by the Director of the Deep South Center for Environmental Justice at this point.

Senator INHOFE. Without objection.

[The referenced document not available at time of print.]

Senator BOXER. She points out what's in all this call it sediments instead of sludge, I don't care what you call it.

Mr. PEACOCK. It's a term of art.

Senator BOXER. It's a term of art, I'll say sediments. Massive amounts of toxics were used and stored along the Gulf Coast before the storm. Literally thousands of sites in the storm's path used or stored hazardous chemical, from the local dry cleaner and auto repair shops to Superfund sites and oil refineries. She goes on and lists ultra-hazardous hydrochloric acid and all of the issues that are there.

Now, my concern is, as these sediments, the sludge that contains the sediment, dries out, there are reports that there are street cleaners in the street, and these substances are going into the air. My question to you is, how can we clean this up? What do you need to clean this up quickly, so that we don't have these substances flying into the air and people ingesting them and getting sick?



Mr. PEACOCK. That's a great question. First of all, this is one of the reasons for getting those monitors in place as quickly as possible, is to see what is actually happening in the air.

We are working with the Corps of Engineers and the city and the State to try and limit how much, for instance, that debris gets moved and gets airborne. That may mean trying to dispose of it in a nearby area or using particular kinds of trucks to move it.

Senator INHOFE. OK, we are going to have to—

Senator BOXER. Could I ask the General just to answer that question?

Senator INHOFE. Short answer, General.

Senator BOXER. Short answer, can you solve this problem, do you need more resources from us to solve this problem?

General STROCK. We really defer to the EPA for the specifics of how, the technologies associated with that. We are very concerned about this for our workers' own exposure. In fact, in New Orleans, and dealing with these sediments we require our workers to wear N95 respirators, to wear waterproof, water-resistant gloves, disposal suits and that sort of thing when they are working around these areas where they have a level of hazard.

Senator BOXER. Well, Mr. Chairman, they're protecting themselves. We have to worry about these little kids coming back in and we need to get rid of this sludge. So can we work together on that, Mr. Peacock?

Mr. PEACOCK. Absolutely.

Senator BOXER. Since the Corps says they're waiting for direction from you.

Senator INHOFE. All right. Let me thank our witnesses for the time that they spent today. I would observe along the lines of that last question, Mr. Peacock, that the early reports, as I recall, indicated that the sediment was not as contaminated as they had thought before.

Mr. PEACOCK. There were two primary problems found, bacteria in the sediment, which as it dries, of course, the bacteria issue will diminish. The second is in particular areas high levels of fuel oil. There were elevated levels of some metals found, but they were below levels of concern for acute exposure.

Senator INHOFE. Well, thank you very much, and we are adjourned.

[Whereupon, at 11:39 a.m., the committee was adjourned.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE  
STATE OF DELAWARE

I am pleased that the Committee has called this hearing. The Corps of Engineers, Environmental Protection Agency and Federal Highway Administration are at the heart of the recovery effort along the Gulf Coast. Guidance from these agencies will be essential to us in Congress as to how best to rebuild.

Of particular interest to me is the New Orleans levee system. Clearly, it was not strong enough to handle a major hurricane. Many of us want to know why.

Was it caused by the way the Corps prioritizes projects or conducts their cost-benefit analysis? Was it the way the Administration or Congress funded the Corps over the past couple of decades? And in the wake of Hurricane Katrina, how can we protect this valuable port, energy producer and cultural asset from increasingly busy and fierce hurricane seasons?

There are further concerns that the levees did not even perform as they were designed to. If that is the case, we are going to need to figure out how that occurred.

But even more, we will need to review flood control projects across the Nation to ensure we have the protection we expect.

As we consider ways to improve the flood control system in New Orleans, we need to make sure that any such project will work with efforts to restore Louisiana's wetlands. The Corps has historically considered such projects as environmental restoration projects, not flood control. But wetlands are essential to reducing storm surge and soaking up floodwater, reducing the vulnerability of communities in places like southern Louisiana.

Separating wetlands restoration and levee projects could result in billions being spent on a new levee system that would merely subside and stand increasingly vulnerable to storm surges from the Gulf, due to continued coastal erosion. Thankfully, the Corps has been open to making changes in the way priorities are set and needs identified, and I look forward to working with you all as the recovery effort moves forward.

It is also good that we have someone here from the Environmental Protection Agency, as there continues to be confusion as to whether the EPA has the waiver authority it needs to help the Gulf Coast recover. We have heard from Administrator Johnson that the EPA has all the authority it needs. Further, the EPA's role in the recovery effort is to ensure that the affected areas are cleaned up and safe for people to come back to their homes. That being the case, it is worrisome that some are talking about waiving more environmental standards. Yet, efforts continue in the Senate to do just this. I certainly hope the EPA can clear up this issue today.

Finally, the Department of Transportation generally has a huge task ahead of it, certainly in terms of fixing damaged transportation infrastructure. But also in providing displaced workers with access to their jobs.

Some businesses in New Orleans and the surrounding area are reopening, while their employees are still unable to return to their homes (200,000 in Baton Rouge alone). Further, some businesses have temporarily located in Baton Rouge, but many of their employees have returned to their homes in Algiers and Uptown.

Ensuring that people have access to their jobs is essential in speeding the recovery in this area. Further, providing this mobility in spite of an estimated 200,000 lost personal automobiles will require creativity. But recent news of the consideration of intercity buses and commuter rail shows that such creativity is being employed, and I look forward to hearing more about this.

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STATEMENT OF HON. BARACK OBAMA, U.S. SENATOR FROM THE STATE OF ILLINOIS

Mr. Chairman, thank you for holding this hearing today. Many members of this Committee have personally surveyed the destruction caused by Hurricane Katrina. Obviously, no one is more aware of this than Senator Vitter, and I commend him for the leadership he has shown over the past month.

A week after the hurricane hit, I traveled to Houston with former Presidents Bush and Clinton to meet with some of the evacuees. Despite the terrible tragedy that had befallen these brave men, women, and children, many were committed to returning to the Gulf Coast. The U.S. Government should ensure that these people are able to do that.

The communities affected by Katrina will need to recreate the very fabric of their communities. While the emotional wounds may always be near the surface, stitch by stitch citizens will repair and rebuild their homes, their places of worship, their schools, and their places of business. They will, however, have to rely on their government to oversee the re-creation of the critical infrastructures needed to underpin their rebuilding efforts.

Without roads and bridges, there is no commerce. Without clean drinking water and sewage treatment, public health is compromised. And without the Army Corps' efforts, there are no protections against future storm surges.

I am interested in hearing how the three agencies testifying before the Committee plan to aid in the recovery efforts. I am also interested in what steps they will take to ensure that the reconstruction of the Gulf Coast is accomplished with transparency and accountability.

Senator Coburn and I have introduced a bill to create a chief financial officer to oversee the reconstruction efforts. I am heartened that the bill has passed the Homeland Security Committee and is awaiting a vote on the Senate floor. But time is of the essence. Each day, Federal agencies are making multi-million dollar contracting and procurement decisions with relatively little oversight. If we truly want to help the people of the Gulf Coast, we need to ensure that Federal dollars are being well spent and are being used to help people and communities most in need.

The CFO bill is needed. So too are the Water Resources Development Act and the Water Infrastructure Financing Act. These two bills are needed to rebuild these communities and to enable other communities to secure their infrastructure against future disasters.

Thank you, Mr. Chairman.

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STATEMENT OF HON. MARCUS PEACOCK, DEPUTY ADMINISTRATOR, U.S.  
ENVIRONMENTAL PROTECTION AGENCY

INTRODUCTION

Good morning, Mr. Chairman and members of the Committee. My name is Marcus Peacock and I serve as the Deputy Administrator at the U.S. Environmental Protection Agency (EPA). On September 6th, the Administrator formally appointed me to lead the coordination of the Agency's response activities for Hurricane Katrina and I appreciate the opportunity to provide you today with an update on EPA's response.

Our hearts go out to the people of the Gulf region, and we share with you an urgent sense of duty to help restore the communities affected by Hurricane Katrina and most recently by Hurricane Rita. Over the past month, natural disasters have left their mark on the Gulf region; the loss of life and destruction is staggering. The magnitude of Hurricane Katrina will require sustained, long-term coordination across all Federal agencies and with the affected State and local governments. My testimony today will provide you with an overview of EPA's role and activities in the affected Gulf region, our impressive coordination with Federal, State and local partners and a snapshot of our primary environmental concerns.

EARLY RESPONSE FOR HURRICANE KATRINA

First, I want to briefly touch on EPA's early response to Hurricane Katrina. Beginning on August 25th, EPA pre-deployed personnel to the FEMA National Response Coordination Center and sent On-Scene Coordinators to the Florida, Louisiana, Alabama and Mississippi Emergency Operations Centers before Hurricane Katrina made landfall. The On-Scene Coordinator (OSC) is the Federal official responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the Federal Government. We sent additional personnel to the affected areas as soon as travel into the region was possible. In anticipation of Hurricane Rita, EPA also deployed response experts to the multi-agency Regional Response Coordination Center in Austin, TX on September 20th. The number of EPA staff and contractors currently assisting with recovery efforts is more than 1,100 in the affected Gulf region.

When EPA personnel arrived in New Orleans, it was clear that saving lives was the first priority, and EPA joined other Federal, State, and local responders in urgent rescue needs, putting over sixty EPA watercraft otherwise used for environmental monitoring to work as search and rescue vessels. Our field staff and contractors—mostly environmental experts equipped to address oil and hazardous substances releases—joined the fire fighters, police, and other first responders and rescued nearly 800 people in Louisiana.

EPA ROLE IN FEDERAL RESPONSE

After helping with urgent rescue needs, EPA turned its attention to its primary responsibilities under FEMA's National Response Plan. EPA is the lead Federal agency for Emergency Support Function (ESF) #10, which addresses oil and hazardous materials, and works with other agencies to provide support for a number of other Emergency Support Functions, including ESF #3, which addresses Public Works and Engineering. Specifically, our responsibilities include preventing, minimizing, or mitigating threats to public health, welfare, or the environment caused by the actual or potential releases of hazardous materials; testing the quality of flood waters, sediments, and air; and assisting with the restoration of the drinking and waste water infrastructure. Also under ESF #3, the Agency anticipates a growing role working with the U.S. Army Corps of Engineers (USACE) to address final disposition of the large volumes of debris from homes, buildings and other structures damaged by Hurricane Katrina. EPA, in coordination with the States, is providing information to both workers and the public about test results, as well as assisting communities with debris disposal and hazardous waste issues.

Debris Management and Disposal

The volume of debris left behind by Hurricane Katrina is huge. EPA is working closely with other Federal agencies (particularly the US Army Corps of Engineers),

State agencies, and local governments to facilitate the collection, segregation, and management of household hazardous waste, containers, and the larger debris.

To date, we have provided guidance on: identifying electrical equipment that may contain PCBs; marking and storage of electrical equipment that may contain PCBs; disposal of electrical equipment that may contain PCBs; and handling and disposal of debris containing asbestos. EPA has also provided the affected States with guidance on burning debris. EPA personnel continue to provide site-specific technical assistance in the disposal of hazardous waste and a wide array of waste management debris left behind by the storm.

#### DRINKING WATER AND WASTE WATER INFRASTRUCTURE

Many drinking water and wastewater systems in the three States were adversely affected by Hurricanes Katrina and Rita. It is a high priority of the States and EPA to re-establish operations at these facilities.

Information received by EPA from State drinking water programs as of October 4th, indicated that 84 percent of the 3,200 water utilities in affected areas of Alabama, Louisiana and Mississippi are operating. Another 8 percent, were operational, but under a boil water advisory. Four percent of the utilities, or 131 systems, were not operating and we estimate that those systems served about 122,000 people prior to the hurricane. Louisiana is still trying to assess the status of an additional 153 systems which have been unreachable and are probably not operating.

The States also indicated that as of October 4th, about 96 percent of the 730 wastewater facilities in the affected areas of Louisiana, Mississippi and Alabama were operational. Of the remaining 4 percent of systems, 16 systems normally serving approximately 530,000 people were not operating and we are awaiting further information on the status of 11 more systems.

In addition to these public systems, there are many people living in areas served by private wells and septic/decentralized systems. The Louisiana Department of Health and Hospitals has begun to distribute water testing kits in affected parishes in Louisiana. EPA's mobile laboratories and regional labs in Mississippi and Louisiana are also available to provide on-going water testing capabilities. To date, EPA's mobile lab located in Biloxi, MS has supported over 300 private drinking water well samples for local residences.

#### OIL SPILLS AND HAZARDOUS RELEASES

There are hundreds of chemical and petrochemical facilities as well as other sites of potential concern that are being inventoried and assessed. EPA and the United States Coast Guard (USCG) are working together to address oil and hazardous material releases reported to the National Response Center or otherwise observed by our emergency responders. As of October 3d, EPA and the USCG have conducted more than 130 emergency response actions as a request of reported incidents. Of these, there were five major oil spills in the New Orleans area resulting in releases of over 8 million gallons.

#### SUPERFUND SITES

There are 24 Superfund sites located in the region affected by Hurricane Katrina. As indicated on the map of the impacted areas, there are 15 National Priority List (NPL) sites in Louisiana, three in Mississippi, and six in Alabama that were potentially affected. Also, Hurricane Rita potentially affected an additional two sites in Louisiana and 28 sites in Texas for a total of 54 NPL sites.

Working together with State health and environmental agencies, EPA has conducted initial assessments of each of these sites. In many cases, these sites were not flooded and did not sustain significant damage. However, we are continuing our assessments and, where necessary, are conducting environmental sampling to determine any impacts. To date, sampling has been conducted at 9 sites in Louisiana and 12 sites in Texas and is ongoing at other sites. The data is currently being evaluated.

#### SEDIMENT IN NEW ORLEANS

As flood waters in New Orleans again recede, we are analyzing the sediment left behind. We are conducting biological and chemical testing, specifically for volatile organic compounds, semi-volatile organic compounds, metals, PCBs, pesticides, and total petroleum hydrocarbons. Sediment samples collected by EPA indicate that most sediments are contaminated with bacteria and fuel oils. Human health risks may therefore exist from unprotected contact with sediment deposited from receding flood waters and exposure to sediment should therefore be avoided if possible. E.

coli was detected in sediment samples, which implies the presence of fecal contamination. Some of the semi-volatile organic compounds, common to diesel and fuel oils, were also detected at very elevated levels. The levels of metals detected thus far have been below levels that would be expected to produce immediate adverse health effects. Sediment sampling occurred in the flooded areas of New Orleans and is near completion.

#### FLOOD WATER

In the immediate aftermath of Katrina, the potential exposure or contact by residents and emergency response personnel to contaminated flood waters was among our leading concerns. EPA's initial plans to collect water samples in the New Orleans flood zone were set aside to assist in rescue operations, and were further delayed by limited access due to security concerns. Nonetheless, EPA, in close coordination with the Louisiana Department of Environmental Quality, began water sampling on September 3d, and while we continue to conduct biological and chemical testing of the flood waters, sampling is near completion.

The flood waters continue to be analyzed for over 100 chemical priority pollutants as well as for bacteria. Results to date indicate that the flood water has high levels of E. coli, and that some locations tested had lead levels exceeding the EPA drinking water action levels. Arsenic, Barium, Thallium, Chromium, Benzene, Selenium, and Cadmium were detected in some samples at levels that exceeded EPA drinking water maximum contaminant levels. Although other contaminants were detected, none have been at levels that would pose an immediate risk to human health. Throughout this process, EPA has taken great steps to ensure scientific accuracy. EPA solicited the assistance the Science Advisory Board to review the flood water sampling plan, and EPA and CDC have routinely conducted a thorough data review, and interpreted the data for potential human health affects.

#### WATER QUALITY

EPA is working closely with its Federal and State partners to mitigate environmental impacts to Lake Pontchartrain caused by the flood waters. As of October 3d, the Corps continues un-watering operations and skimming booms are deployed to remove oil and debris from water prior to pumping. After pumping, additional booms are being deployed in the canals leading to the Lake to further reduce oil, debris, and solids. Aerators are also being used in the canals to raise the dissolved oxygen levels in the water prior to outfall to Lake Pontchartrain.

Contaminated flood waters and sediment may adversely impact coastal aquatic resources. As such, EPA and USACE are actively evaluating options for directing the floodwaters. In addition, EPA is coordinating water quality monitoring efforts with USGS, NOAA and our State partners in the Mississippi Sound and the Gulf of Mexico. The poster behind me reflects the coordinated post-Hurricane plans to monitor water quality in the Gulf of Mexico.

#### AIR MONITORING

Air monitoring networks normally in place for monitoring particulate matter, ozone, sulfur dioxide, oxides of nitrogen, and carbon monoxide under the Clean Air Act were mostly destroyed in New Orleans and damaged and disrupted in coastal Mississippi. EPA is working to restore monitoring systems in those regions, as well as to deploy new monitors designed specifically to address potential air quality impacts during the recovery from Hurricane Katrina. For instance, as sediments from the floodwaters dry, EPA has conducted air screening sampling with special monitors to assess potential inhalation risks from particulates.

Specific to New Orleans, EPA, in coordination with our government partners in Louisiana, makes daily tactical decisions regarding air monitoring needs and works with an agency-wide team of air monitoring professionals to address both emerging and source or location specific issues as well as longer term regional air quality issues.

EPA has a number of tools to measure air quality. These include DataRam 400, personal air monitoring devices, as well as use of a remote sensing aircraft known as ASPECT to locate chemical spills that needed emergency response to protect both water and air quality. EPA's environmental surveillance aircraft was in operation during the early days of the emergency, and again after Hurricane Rita passed through the region.

EPA's real-time mobile laboratory—the Trace Atmospheric Gas Analyzer (TAGA)—is sampling air quality in the New Orleans area. Initial screening results from the TAGA represent the beginning of extensive sampling efforts. As this is a

dynamic situation, general conclusions should not be made regarding air safety based on results from snapshots of data.

EPA and the affected States will continue to monitor for potential inhalation risks and have plans to enhance their temporary monitoring networks in the coming weeks to monitor and evaluate the air impacts of recovery activities including the burning of debris.

#### REOCCUPATION OF NEW ORLEANS

EPA and CDC formed a joint task force to advise local and State officials of the potential health and environmental risks associated with returning to the city of New Orleans. Their report, titled *Environmental Health Needs and Habitability Assessment*, was issued on September 17th and identifies a number of challenges and critical issues for consideration prior to the reoccupation of New Orleans. The task force is now incorporated into the Federal New Orleans Reoccupation Zip Code Assessment Group (Zip Code Assessment Group), which will provide information on a broad range of issues, ranging from infrastructure to health issues. Their recommendations will assist State and Local officials in their decisions regarding when to allow residents to reoccupy the city. As part of this larger group, EPA will continue to work to identify potential health and environmental risks associated with returning to the city based on the Agency's ongoing efforts to assess the quality of the air, water and sediment.

#### FUEL WAIVERS

EPA, in conjunction with the Department of Energy, responded quickly to address disruptions to the fuel supply that have occurred due to the damage to refinery and pipeline infrastructure in the Gulf Region. To increase the supply of fuel and minimize potential supply disruptions, the Agency has issued emergency waivers of certain Federal and State fuel standards. On August 30th, EPA granted waivers applying to low sulfur diesel fuel requirements, Reid Vapor Pressure (RVP) standards that control the volatility of gasoline during the summer months, State gasoline sulfur limits, or reformulated gas (RFG) requirements. On September 21st, EPA expanded this effort in order to minimize potential fuel supply disruptions caused by Hurricane Rita. To address each fuel supply situation, waivers have been granted for various periods of time and have been applicable at the national, State or local level, to the extent necessary to alleviate the fuel supply disruption.

In taking these actions, EPA used a Clean Air Act waiver provision recently signed into law as part of the Energy Policy Act of 2005 signed into law this year. This provision authorizes the Administrator of EPA to temporarily waive fuel standards due to "extreme and unusual" circumstances "that are the result of a natural disaster, an Act of God, pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning" on the part of fuel suppliers.

#### INFORMING THE PUBLIC

We view communication to the public, workers, and other agencies to be a critical component of our response effort. The Occupational Health and Safety Administration (OSHA) was on-scene early in the response effort, distributing over 3,500 fact sheets by hand in the first 2 weeks and conducting interventions that removed more than 850 workers from serious or life threatening hazards. OSHA continues these activities and on a daily basis, EPA response personnel and contractors receive health and safety instructions regarding field conditions and safe work practices. EPA's preliminary sampling results are also provided to On-Scene Coordinators to facilitate field decisions and ensure health and safety of workers.

EPA posts advisories on our website and also distributes them through the Incident Command Post in Baton Rouge. We also have been alerting communities through AM and FM radio broadcasts, particularly on aerial mosquito spraying and how to avoid vector borne illnesses such as the West Nile Virus.

#### FUTURE CHALLENGES

Looking ahead, much remains to be done to help address the public health and environmental impacts of Hurricane Katrina. The safe management of debris remains a high immediate priority, and the Agency will assist our Federal, State and local partners as they move forward on debris removal. For its part, the Agency will strive to provide sound and practical advice, participate in hazardous waste removal where appropriate, and monitor air quality where open burning is occurring. EPA will also continue to work with the USACE and others to support the States and

local governments in their efforts to repair and restore public facilities including drinking water, waste water, and waste treatment facilities. We will also continue to monitor air, water, and sediment quality in the region and make sure that this information is readily available to Federal, State and local officials, other responders, and the public.

#### CONCLUSION

The Nation faces an enormous task in restoring and rebuilding the affected areas. Simply meeting many basic needs of people in the region including shelter, safe drinking water, sanitation, and protection from disease and hazards will require a broad partnership across government agencies, the private sector and nongovernmental organizations (NGO's). We expect that citizens and government agencies will look to EPA and our Federal partners for technical expertise, scientifically sound data, and practical advice on environmental and public health conditions in the region for some time to come. We are focused on meeting that challenge.

Finally, as local communities undertake the task of reviving their economies and helping businesses restart their operations, EPA, in partnership with other Federal, State, and local agencies, will provide technical expertise and guidance to assist in the recovery. Some of you may know that I'm quite new to the EPA, but what I've seen in the past month makes me proud to be counted among them.

At this time I welcome any questions you may have.

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#### RESPONSES BY MARCUS PEACOCK TO ADDITIONAL QUESTIONS FROM SENATOR THUNE

*Question 1.* Please provide me with more information regarding the site assessments that have been conducted to date at the NPL sites in Alabama, Louisiana and Mississippi.

Response. EPA performed initial visual assessments at the 24 National Priority List (NPL) sites in the areas of Louisiana, Mississippi and Alabama that were in the path of Hurricane Katrina. Initial assessments were conducted to determine if these sites had sustained damage that warranted immediate action. EPA then completed a second round of site visits and conducted confirmatory sampling at these sites. When the results of the sampling have been analyzed, validated and interpreted, the information will be posted on the EPA website. A status report on EPA assessment of these NPL sites can be found on the EPA website at <http://www.epa.gov/katrina/superfund.html>

*Question 2.* What is the current status of Underground Storage Tanks in the Gulf Coast region? In particular, has there been any reported leaks, ruptures or spills?

Response. EPA is currently working with the States to assess the condition of underground storage tank (UST) facilities in the Gulf Coast Region. Approximately 1700 UST facilities are estimated to have been in the hurricane impact areas. The affected States identified approximately 800 facilities that may have had hurricane related damage and are in need of preliminary site assessments. Through FEMA's mission assignments, EPA and State inspectors have conducted preliminary inspections to determine facility operability at these facilities. A relatively small number of facilities have had site assessments to test for subsurface contamination, though EPA does not have a specific accounting of the number of sites. In addition to the actively operating facilities, approximately 350 facilities in the impacted area were undergoing remediation at the time of the hurricanes. EPA does not have an accounting of the number of these facilities that have been identified for damage to corrective action equipment, nor of the number of facilities that have undergone additional assessment to determine the affect of the storm on the existing contamination. Louisiana's "Plan for Evaluating Underground Storage Tank Sites Impacted by Hurricane Katrina" requires all impacted UST systems to be evaluated to determine if they are suitable for returning to operation, and to have tightness tests within 6 months of returning a system to operation.

*Question 3.* What is the current status of Chemical facilities in the Gulf Coast Region?

Response. Relying upon the lists of regulated facilities that manage hazardous chemicals maintained by the States and EPA, EPA began gathering information on chemical facilities in the potentially affected areas immediately after the hurricane made landfall. Low level helicopter flyovers, known as Rapid Needs Assessments (RNAs), were conducted to do initial assessments of the status of facilities and determine any major environmental releases. The RNAs revealed no major environmental chemical releases from any facility. Concurrently, detailed facility information such as geographic location, chemicals stored or manufactured onsite, and facil-

ity contact information from EPA's regulatory reporting data bases (TRI, RMP, FRP, RCRA) was provided to field response teams to both ensure safety and prioritize facilities for ground reconnaissance actions. EPA is coordinating with Federal partners and States in conducting these more detailed facility evaluations and has used many methods to determine status such as aerial flyovers, field team evaluations, and telephone communications with facility personnel. The detailed facility evaluations are continuing, and are confirming the RNA conclusions.

*Question 4.* As the author of S. 1761, the "Gulf Coast Recovery Act" I would appreciate knowing more about how the Environmental Protection Agency (as well as your private sector partners) are impacted by the threat of litigation in post-disaster clean-up efforts.

Response. EPA is not currently impacted by the threat of litigation in its post-disaster clean-up efforts. The Agency's approach has been and will be to act within its statutory authorities when responding to the disaster. EPA is not in a position to speak on behalf of its private sector contractors regarding how the threat of litigation may affect their actions.

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RESPONSES BY MARCUS PEACOCK TO ADDITIONAL QUESTIONS  
FROM SENATOR VOINOVICH

*Question 1.* Many of the complaints after Hurricane Katrina have focused on the lack of coordination among Federal, State, and local agencies. In what ways can we improve this level of coordination and cooperation to ensure future disasters are handled in an efficient manner?

Response. EPA has not encountered coordination problems to date. We continue to work with Federal, State and local officials as directed by the National Response Plan. In most cases, EPA is assisting State cleanup efforts based on requests from the States. These State assistance requests are conveyed to FEMA and subsequently issued as mission assignments to EPA. EPA is also in frequent contact with local officials (Parish, County and Municipal officials) to coordinate and tailor EPA actions to the needs of individual municipalities. At the Federal level, EPA is participating at the Joint Field Offices established by FEMA and is in frequent contact with other Federal partners, including the US Army Corps of Engineers and the Department of Health and Human Services.

In the future, EPA believes that the full implementation of the National Incident Management System, through the Department of Homeland Security, will provide continuous coordination improvement at all levels during a major incident. Once implemented, this system will ensure a consistent management structure under the National Response Plan for State, local and Federal response personnel and will provide a common operating framework for all involved.

*Question 2.* In your testimony, you mentioned that the recovery efforts enlisted the help of more than 1,100 EPA staff and contractors. Do you believe the EPA has the resources to handle multiple disasters that could possibly confront the United States?

Response. After the terrorist attacks of September 11, 2001, EPA developed a plan to strengthen its emergency response capability to address the possibility of multiple, large-scale incidents. This plan, called EPA's National Approach to Response, further improved consistency across EPA Regional response programs and advanced the Agency's ability to draw on its national assets to respond to multiple incidents. While it is not possible to predict every potential disaster, EPA has specifically developed and practiced its ability to deal with multiple disaster scenarios. For this hurricane response, EPA has been able to adequately handle resource needs.

*Question 3.* Was there a written plan at EPA for responding to a major natural disaster?

Response. EPA has substantial experience responding to natural disasters, including hurricanes. The National Response Plan (NRP) is the primary guiding document for the Federal Government's response to natural disasters and other Incidents of National Significance. The NRP lists EPA as the primary agency for Emergency Support Function #10, which addresses the Federal response to releases or potential releases of oil and hazardous materials. The NRP also assigns EPA support roles to numerous other Emergency Support Functions lead by other agencies. EPA's National Contingency Plan serves as guiding document for our responses under the NRP.

*Question 4.* What lessons did EPA learn as a result of 9/11?



Response. Following the events of 9/11, EPA implemented a new Agency-wide National Approach to Response for Incidents of National Significance (INS). To implement the national approach, EPA identified priority action plans that resulted in:

- the preparation of a comprehensive roster of EPA employees (beyond the emergency response staff) who can be called upon to assist during an INS;
- enhanced attention to health and safety protocols for responders;
- an Incident Command System (ICS) training and exercise program for emergency response personnel and others;
- purchase of appropriate field and telecommunication equipment and improvements for consistent contracting capacity and capability; and
- policies and procedures to assure consistent use of information technology systems in the field for formatting, review and storage of laboratory data.

These activities contributed significantly to the Agency's overall ability to respond in an efficient and effective manner and have contributed greatly to our success in handling Hurricane Katrina. I would also like to note that our lessons learned reports from the events of 9/11 were quickly sent to EPA senior management after Katrina made landfall.

*Question 5.* I understand that in a recently released report, the CDC and EPA have identified 13 environmental health issues, including drinking water, wastewater, solid waste and debris, and sediments and soil contamination from toxic chemicals. Could you speak to the findings in the report, as they pertain to public safety and health concerns for our recovery workers? How important is it that we monitor the health concerns of both first responders and those exposed to these "substances of concern?"

Response. EPA and CDC jointly released a report entitled "Environmental Health Needs and Habitability Assessment" on September 17, 2005. This report lists 13 key areas affecting the rehabilitation of New Orleans. A complex array of environmental health problems exist in New Orleans. The report specifically identified worker health and safety as an essential condition of rebuilding New Orleans. EPA has been working with OSHA to provide information on environmental health hazards so that responders can take the proper precautions to protect themselves. In addition, EPA has conducted a wide variety of environmental sampling activities to provide data on potential hazards. The results of this data analysis have been used to identify hazards and provide advice and guidance to both workers and the public in New Orleans. EPA has also widely disseminated materials that provide information on environmental health hazards in the hurricane affected areas to Federal, State and local officials, as well as directly to returning residents. With regard to monitoring of health concerns, all EPA response personnel must have appropriate health and safety training and participate in a medical monitoring program before being deployed for field work.

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RESPONSES BY MARCUS PEACOCK TO ADDITIONAL QUESTIONS FROM SENATOR OBAMA

*Question 1.* Senator Coburn and I introduced a bill recently to appoint a chief financial officer in the Executive Office of the President to oversee hurricane reconstruction efforts. The bill is meant to ensure that there is oversight on the front end before money is spent, instead of after the money has gone out the door.

Already, we've seen some disturbing examples of poorly spent money. A few weeks ago, Senator Coburn and I highlighted a \$200 million contract that FEMA signed with Carnival Cruise Lines to house evacuees and rescue workers. Under this contract, taxpayers are paying \$2,500 a week per person housed on the ship—four times the cost of a 7-day Caribbean cruise, which includes entertainment.

Please describe how your agency is ensuring that reconstruction funds are being well spent.

Response. EPA's work under Emergency Support Function (ESF) #10 of the National Response Plan is funded through Mission Assignments from FEMA using the authority of the Stafford Act. Shortly after the Hurricane Katrina emergency, EPA developed the Katrina Stewardship. The purpose of this plan is to ensure the prudent stewardship of taxpayer funds for current and future cleanup and recovery activities resulting from Hurricane Katrina and other recent hurricanes. EPA periodically reviews and monitors established controls governing utilization of agency resources and transaction activity supporting hurricane relief efforts. The majority of EPA expenditures have used competitive contracts with pre-negotiated rates that are used in support of the Agency's removal actions.

*Question 2.* Are there instances when multiple agencies are involved in contracting and procurement decisions? When that happens, who coordinates oversight over these financial decisions?

Response. There may be times when multiple agencies would collaborate on contracting and procurement decisions. Generally, one of the agencies' procurement offices would be designated as the lead, and would be responsible for executing the required procurement steps using its own oversight functions. The lead agency coordinates the effort from requirement definition to final award.

*Question 3.* In your testimony, you mention that 84 percent of the drinking water systems in the Gulf Coast are fully operational and an additional 8 percent of the systems are producing water that must be boiled.

How long will it take before all the people of the Gulf Coast have safe drinking water? Will it be weeks or months?

Response. Over 4,000 public water systems serving over 15 million people in the Gulf Coast were affected by Hurricanes Katrina and Rita. Significant progress has been made since the hurricanes struck to bring systems back on line. As of early January, 2006, all but 71 of these systems have returned to safe operations. These remaining 71 systems are located in Louisiana (41) and Mississippi (30).

In Mississippi, all municipally owned community water systems are back in operation. The 30 remaining systems are either community water systems that are not municipally owned (9) or are not considered community water systems (21). These systems are either not operating (12), operating under a boil water notice (13), or completely destroyed (4).

In Louisiana, the 41 systems that are not fully operational have either been inactivated and are no longer operating (35), tied into another water system (4), or are under boil water advisory for some portion of the distribution system (2). The vast majority of the inactivated systems were non-community water systems serving such places as schools, factories, office buildings, and campgrounds, many of which may not be open for business.

For these non-community water systems and non-municipal community water systems, the decision to come back into service as a water supply is a decision made by the business owner. It is therefore difficult to determine a timeframe for when they might be back in service.

*Question 4.* What can we proactively do to ensure that other natural disasters do not cause the same damage to our drinking water systems?

Response. Over the past several years, EPA has developed several tools for utilities to prepare for emergencies. The Agency works closely with the Association of State Drinking Water Administrators, the American Water Works Association, the Association of Metropolitan Water Agencies, and the National Rural Water Association to develop and disseminate materials on protecting critical water infrastructure. With respect to hurricanes, EPA has posted 43 activities on its website that drinking water and wastewater systems can take to protect their facilities from damage in anticipation of a hurricane. We are still in the mode of collecting and analyzing information on the effects of the hurricanes on water systems in Louisiana, Mississippi, and Texas. EPA expects that evaluations by EPA, State staff and industry experts will identify "lessons learned" that we will be able to use to develop new information and guidance for utilities.

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RESPONSES BY MARCUS PEACOCK TO ADDITIONAL QUESTIONS  
FROM SENATOR JEFFORDS

*Question 1.* In July 2004, emergency officials conducted a planning scenario in Louisiana to address a Category 3 hurricane. The debris team for this exercise estimated that the storm would result in 30 million cubic yards of debris and 237,000 cubic yards of household hazardous waste. How are EPA and the Corps working together to manage this large quantity of debris, including hazardous materials and the potential air quality impacts of any open burning?

Response. The U.S. Army Corps of Engineers (USACE) has been tasked by FEMA under ESF-3 with debris removal. EPA's role addresses recovery and disposal of hazardous materials, including industrial containers and household hazardous waste. EPA is also overseeing segregation of hazardous materials from general debris and distributing information to the public. Each of the affected States has developed an overall Debris Management Plan. EPA and USACE are working closely together in coordination with State and local authorities to provide assistance on the management of Hurricane debris and hazardous waste. EPA and USACE activities may vary among counties, parishes and municipalities to accommodate their needs.

EPA is also consulting with State, local and Federal officials on a number of debris disposal option. In some cases, EPA will conduct air monitoring during test burns or at burn sites.

*Question 2.* Mr. Peacock, one of the lessons learned from September 11th was that first responders must be provided with good information about health precautions they should take while they are participating in rescue operations. What steps is the Agency taking to ensure that first responders and the public are aware of the magnitude of the hazards facing those who choose to return to New Orleans?

Response. EPA has been disseminating information and recommendations on potential hazards to first responders and the public through a variety of venues. EPA has posted data and health recommendations from samples of floodwater, floodwater sediment and air on the Agency website and has issued several health advisories. EPA officials have been actively providing information to the print press and broadcast media, both in the Hurricane affected areas and with national organizations, including Public Service Announcements for radio. On the ground, EPA has distributed more than 1,000,000 flyers in Louisiana on health hazards, debris management and hazards associated with building reentry. As part of our incident command structure, health and safety officers provide guidance to EPA field responders on a daily basis on the hazards they may encounter and what protection is required.

*Question 3.* Mr. Peacock, after the Galveston Hurricane struck that city in 1900, drinking water services were restored a week after the hurricane hit. According to your October 4th update, there are 95 drinking water systems out of operations in Louisiana, 36 in Mississippi, and 124 in Texas. What needs to be done to get these systems up to speed faster? Specifically, are people, money, or authority limiting factors for the EPA?

Response. Over 4,000 public water systems serving over 15 million people in the Gulf Coast were affected by Hurricanes Katrina and Rita. Significant progress has been made since the hurricanes struck to bring systems back on line. As of early January, 2006, all but 71 of these systems have returned to safe operations. These remaining 71 systems are located in Louisiana (41) and Mississippi (30).

In Mississippi, all municipally owned community water systems are back in operation. The 30 remaining systems are either community water systems that are not municipally owned (9) or are not considered community water systems (21). These systems are either not operating (12), operating under a boil water notice (13), or completely destroyed (4).

In Louisiana, the 41 systems that are not fully operational have either been inactivated and are no longer operating (35), tied into another water system (4), or are under boil water advisory for some portion of the distribution system (2). The vast majority of the inactivated systems were non-community water systems serving such places as schools, factories, office buildings, and campgrounds, many of which may not be open for business.

For these non-community water systems and non-municipal community water systems, the decision to come back into service as a water supply is a decision made by the business owner. It is therefore difficult to determine a timeframe for when they might be back in service.

We cannot yet accurately estimate the time it will take to bring all systems back up to full operation because the recovery is dependent on the speed with which their surrounding areas are being restored. This is more a matter of time than people or money and will involve the Public Assistance Program led by FEMA. To date, EPA's efforts have not been hampered by limited authority.

*Question 4.* Mr. Peacock, people returning to the New Orleans area will be facing health risks within their own homes from mold and materials that were left when the floodwaters receded. What is EPA doing to determine whether it is safe for people to reoccupy their homes?

Response. Local officials have the authority and are in the best position to make decisions regarding the safety of home re-occupancy. EPA has been working closely with CDC and the States to ensure that the latest public health information regarding mold and environmental contaminants is available to the citizens in the Gulf region. For example, as early as September 14, EPA, in conjunction with HHS, OSHA, and FEMA, issued a press statement and advisory titled "Potential Environmental Health Hazards When Returning to Homes and Businesses". Since that time EPA has been sharing its sampling data and advisories with Federal, State and local authorities so that they are well aware of and can take appropriate action to mitigate the threats people may face.

*Question 5.* Do you anticipate any long-term delays in getting drinking water and wastewater plants back on line, what financial role do you anticipate EPA will play

in that process, and do you expect that any plants will have to suspend operations due to lack of customers and lack of a rate base?

Response. Several drinking water and wastewater plants were heavily damaged. The communities and the State are still evaluating the extent of the damage and have yet to determine how long it will take to rebuild. The most heavily damaged plants are in areas that have currently lost many of their customers and therefore their rate base. Considerations about rebuilding the treatment facilities must go hand in hand with considerations about rebuilding housing and other aspects of the communities. The State Revolving Funds are EPA's primary funding source; however, we expect that insurance and FEMA public assistance funds will cover most of the costs. The States implement the SRF fund but EPA will work with the States if there are any barriers to making low interest loans available for rebuilding.

*Question 6.* How are you tracking health impacts due to exposure to flood waters, contaminated sediments, and other health hazards?

Response. The State and local health authorities have the lead in tracking health impacts. The Department of Health and Human Services (HHS) has the Federal lead for assisting these local authorities track these health impacts. EPA is assisting in this effort by providing data analysis and interpretation of environmental media samples.

*Question 7.* In recent press reports, Louisiana and EPA officials were quoted as saying that based on the approach being taken to debris handling, it is unlikely that dust or contaminants resulting from debris removal and structure demolition will wind up in rainwater. Can you articulate exactly what steps EPA and the Corps is taking and what assurances you have made, if any, to the State of Louisiana that there will not be a concern with stormwater runoff in the future?

Response. Hurricane Katrina created an enormous amount of vegetative, building and demolition debris. How communities have managed debris generated from Hurricane Katrina depends on the debris generated and the management options available. The fate and transport of pollutants from debris removal and structure demolition depends on the nature of the waste and the management option used.

The Louisiana Department of Environmental Quality's (LDEQ) general approach to debris management is outlined in the "Hurricane Katrina Debris Management Plan" (Louisiana Department of Environmental Quality, Revised October 14, 2005). The LDEQ Debris Management Plan gives guidance to local governments. In addition, the US Army Corp of Engineers (USACE), Debris Teams operate in compliance with the Plan. LDEQ's plan provides specific guidance to prevent stormwater runoff contamination by dust or other contaminants resulting from debris removal. The plan requires debris to be staged at temporary sites and transported to permitted Type III facilities or to emergency disposal sites. Under the Plan, the LDEQ must inspect and approve any emergency site proposed for debris management, subject to restrictions and operating conditions, such as best management practices.

EPA and the Corp of Engineers continue to work with Louisiana as it implements its debris management plan. Where appropriate, EPA will recommend best management practices and other measures to address the quality of stormwater runoff and other wastewater from these debris management activities.

*Question 8.* EPA has advised us that the flooding has affected significant numbers of drinking water and wastewater facilities, petrochemical, and other industrial facilities in Louisiana, Mississippi, and Alabama. Is the Agency evaluating the storage and handling of potentially hazardous chemicals, such as chlorine, at these facilities? What steps is the Agency taking to ensure the security and safe handling of chemicals at these facilities?

Response. As required under the Bioterrorism Act, a drinking water utility serving more than 3,300 persons must conduct a vulnerability assessment and certify to EPA that the assessment has been completed. Vulnerability assessments help water utilities to evaluate their susceptibility to potential threats and identify corrective actions to reduce or mitigate the risk. The systems must also show that they have updated or completed an emergency response plan outlining response measures if an incident occurs.

EPA has helped water utilities and others facilities that manage hazardous chemicals take action to protect their infrastructure and potentially hazardous chemicals by providing tools, trainings, and technical assistance. These tools help utility managers, operators, and local officials improve security and plan for emergency situations such as experienced during Hurricane Katrina. Many smaller facilities do not use hazardous chemicals. Facilities that use chemicals at certain threshold levels are required to comply with Risk Management Program requirements

under the Clean Air Act. These requirements address process safety management and accident prevention.

*Question 9.* EPA testing found bacteria concentrations up to 19 times the EPA limits for recreational contact and lead levels 56 times the EPA limits for drinking water. This water is being pumped directly into the Lake, a recreational resource for the area, with the only protection being surface booms and aerators. EPA has said that sampling data shows little pollution in the Lake. Can you describe why you believe that the sampling plan you have in place is adequate to determine the level of pollution throughout the Lake?

Response. EPA has designed a statistically robust sampling plan that will produce scientifically credible results about possible risks to human health or the environment in Lake Pontchartrain. We have confidence that our combination of probability-based and targeted sampling and our broad array of potential contaminants being tested shall provide us credible evidence of pollution levels throughout the Lake. Probability-based sampling is a widely accepted statistical technique for using samples to represent conditions throughout an entire area, such as all of the Lake, at a desired level of certainty. Targeted sampling is a second technique that involves monitoring specific areas that are, for example, of higher human exposure or of higher risk for pollution. Further, it should be noted that the bacteria and lead detections cited above were in floodwaters, at concentrations that were diluted significantly by the large volume of the Lake as the pumping occurred over a period of many days. Floodwaters were analyzed using drinking water standards, while waters in the lake are being analyzed using ambient water quality criteria and fish tissue concentrations. EPA and its State and Federal partners will continue to analyze water, sediment and fish tissue samples and resample as needed until the magnitude of risks to human health and the environment in the Lake are understood and verified with confidence.

*Question 10.* I understand that the EPA is developing a 5-year sampling plan for Lake Pontchartrain in coordination with the State. What is your timeframe for completion of that plan, how do you intend to pay for its implementation, and what will you be sampling for?

Response. EPA is unaware of an effort to develop a 5-year sampling plan for Lake Pontchartrain in coordination with the State of Louisiana. Sampling to date has been part of a broader interagency monitoring plan that involved EPA, USGS, USFWS, LDEQ, and FDA. Initial testing has been completed and subsequent sampling efforts may be needed to monitor longer term impacts, but that determination has not yet been made.

*Question 11.* One of the items in the September 17 EPA–CDC strategy is to engage and communicate with the displaced population. How is this being accomplished, and what steps are the agencies taking to ensure that average citizens watching the news are aware of the magnitude of the potential health threats facing those who return to the city?

Response. In our efforts to help the New Orleans area recover, EPA is using a variety of existing networks to reach individuals. Working closely with State and local officials, EPA's approach relies heavily on local networks such as the news media, Parish government institutions, local retailers, and faith-based and environmental-based organizations to reach evacuees.

- EPA will continue to issue news advisories/press releases, post Web site information, and hold media briefings to disseminate information about the potential environmental and health risks returning residents may face. EPA's first such release was issued on September 4, 2005 and was entitled "EPA Urges Caution When Re-entering Hurricane Damaged Homes and Buildings."

- EPA has provided FEMA pre-recorded interviews with senior EPA managers about reentry hazards for broadcast over XM radio and TV to evacuee shelters. In addition, EPA personnel fluent in Vietnamese have conducted outreach on Vietnamese radio stations in Dallas and Houston where there are many displaced Vietnamese residents.

- EPA has produced public service announcements (PSAs) and informational handouts about a host of cleanup activities that can pose potential environmental and health hazards for returning residents. The PSAs and handouts are available in English, Spanish and Vietnamese. EPA and FEMA are working to cross promote PSAs, and EPA is aggressively sending the PSAs to radio stations and has distributed more than one million handouts to date.

- Also, in outreach activities, EPA provides a daily 5 minute report on the major Louisiana AM radio station, WWL, about the agency's local activities and EPA personnel provide weekly updates on Eyewitness Morning News on WWL-TV.

- Finally, as the population is returning, EPA is using Community Involvement Coordinators to re-engage the citizens and to participate in Welcome Home events in Parishes by providing information on environmental issues.

*Question 12.* The breadth and magnitude of Hurricane Katrina is larger than most EPA disaster response work. The recovery from this storm will be long-term, and it is likely to be complicated by environmental hazards in the area. Is the EPA's existing management structure, personnel, and resources equipped to handle a recovery of this magnitude?

Response. EPA has the personnel and resources from the Agency Headquarters, all of its 10 Regional Offices, and from our specialized response teams to assist in one or more large-scale responses. EPA believes that we are well prepared to assist in the recovery from Hurricane Katrina.

*Question 13.* You have described EPA's role in the days preceding and the immediate aftermath of Hurricane Katrina. Knowing what you know today, would you have done anything differently?

Response. To date, EPA's response efforts have shown themselves to be effective. This is due in large part to actions that the Agency took following the events of September 11, 2001. These actions included the implementation of a new Agency wide National Approach to Response and priority action plans that resulted in improvements to health and safety protocols for emergency response personnel, ICS training, purchase of appropriate field and telecommunications equipment, improvements for consistent contracting capability and policies and procedures to improve consistent use of information technology systems in the field for formatting, review and storage of laboratory data. EPA has established a process for collecting lessons learned from the recent hurricane response and will pursue improvements as needs are identified.

*Question 14.* Did EPA plan and/or take any steps planned to secure or remove hazardous substances in the area in the event of a catastrophic flood, which was a known risk for the area? If not, do you intend to re-evaluate the Agency's role in this type of disaster preparedness to determine if changes are appropriate?

Response. EPA has a number of regulations in place that require industry to address the handling and storage of hazardous substances as well as emergency planning and preparedness. We will, however, be evaluating lessons learned from this event and will consider any needed changes in our regulations as a result of this process.

*Question 15.* Does the EPA have adequate lab capacity to handle the large number of water quality samples that are being taken?

Response. EPA has found adequate lab capacity for analysis of the water quality samples that are being taken.

*Question 16.* Has the EPA used, or do you have plans to use, the Drinking Water Emergency Assistance authority in the Safe Drinking Water Act?

Response. EPA can use its Safe Drinking Water Act ("SDWA") Section 1431 authority to authorize use of water which does not meet Federal drinking water standards where such use of water is necessary to avoid imminent and substantial endangerment to public health, such as the lack of an operational public water system. On September 14, 2005, EPA Region 4 issued a letter under Section 1431 authorizing the General Electric Company to temporarily use nonpotable water for personal hygiene under certain restrictions for its contractors working on projects in Mississippi in areas affected by Hurricane Katrina.

SDWA Section 1442(b) covers emergency grant-making authority. It allows the Administrator to provide technical assistance and to make grants to States or publicly owned water systems to assist in responding to and alleviating any emergency situation affecting public water systems. EPA has not used this grant authority.

*Question 17.* Has the Agency considered establishing an advisory group to assist the Administration and the State in dealing with environmental issues during the recovery process?

Response. EPA currently has two Federal Advisory Committees in place that assist in this effort. During the Hurricane Katrina response, the Science Advisory Board (SAB) was asked by the Agency to review environmental sampling plans to ensure that they were scientifically sound and appropriate for this situation. The National Advisory Council for Environmental Policy and Technology (NACEPT) is an existing Advisory Committee that can be used by the Agency to provide advice and counsel on any number of environmental issues. This Committee has been recently briefed on the Agency's Hurricane Katrina response and is available for consultation as needed.

*Question 18.* How is EPA participating in Emergency Support Function 14, administered by FEMA, Long Term Community Recovery operations?

Response. To date, EPA has participated in several conference calls/meetings led by FEMA in both Washington, DC and in New Orleans to discuss ESF-14 activities. These meetings have focused on the identification of existing Federal programs that can contribute to the recovery effort.

*Question 19.* Do you have a comprehensive plan to test soil, water, and air in affected communities prior to reoccupancy, and will you include testing of private drinking water wells in that plan?

Response. Since early in September, EPA has been conducting environmental sampling of flood water, residual sediment, and air quality to determine impacts to the city and to advise workers and the public on appropriate precautions to take. A comprehensive sampling plan was developed for each of these media and reviewed by EPA's Science Advisory Board. These sampling efforts will continue as necessary to assist State and local authorities in making decisions on re-occupancy. EPA has also been working with State drinking water programs to help support testing of private wells to ensure that homeowners have safe drinking water. The Agency's mobile labs in Louisiana and Mississippi have tested hundreds of samples from homeowner wells. EPA also provided assistance to the States by making available copies of pamphlets that inform homeowners how to manage a flooded well. At the request of States, EPA translated the documents into Spanish and Vietnamese.

*Question 20.* Will the Agency require or encourage the use of clean diesel fuel for the recovery and reconstruction operations?

Response. Yes, EPA has a national program to encourage the use of cleaner fuels, including biodiesel, as well as the use of advanced after-treatment "retrofit" technologies on non-road equipment. The application of retrofit technologies can significantly reduce the pollution emitted from this equipment. Non-road construction and demolition equipment has been critical to the recovery and reconstruction effort. In addition, the trucks that are involved in these operations cannot only utilize the cleaner fuel but also participate in EPA's national reduced idling program as they wait to be loaded with debris or off-loaded with construction materials.

*Question 21.* It has been reported that some involved in the water quality testing in Lake Pontchartrain have said that contaminants found in Lake Pontchartrain would either evaporate within days or settle into lake bottom sediment. This assessment seems to dismiss the environmental and health impacts of contaminated sediments, and give an overly optimistic review of the water quality in the Lake. Does EPA share the view that contaminated sediments in the Lake do not pose a water quality or health threat? Can you describe the Agency's plan to determine the degree of contamination in lake sediments?

Response. Our sediment samples are undergoing laboratory analysis at this time, and the tests conducted during this analysis follow strict quality assurance and validation requirements to ensure that our findings are correct. EPA will not predict what the results may show while we await this analysis. The multi-agency plan for testing Lake sediments involved gathering both probability-based and targeted samples, and testing the sediment for metals, PAHs, PBDEs, PCBs, pesticides, and other contaminants that might have been released by the storm's impacts on nearby communities. EPA has included substantial sediment sampling and testing in our monitoring design throughout the affected region. Although it is routine and helpful for scientists to offer professional opinions as to where and why contaminants may move and eventually settle, such opinions are not conclusive until they are paired with and plausibly explain actual monitoring results.

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RESPONSES BY MARCUS PEACOCK TO ADDITIONAL QUESTIONS  
FROM SENATOR LAUTENBERG

*Question 1.* A story in the October 2 New York Times headlined "Blanket of Mold Threatens Health and Homes" reported that trillions of mold spores are reproducing inside tens of thousands of buildings. The mold "could sicken the 20 percent of the population that has allergy problems, experts say, and could also be dangerous for older residents, children and people with weakened immune systems." The story had conflicting views on whether mold could also cause birth defects and cancer.

The story went on to say that "Officials at the state Department of Health, and Hospitals, the agency primarily responsible for mold mitigation, said the department was so overwhelmed with other flood-related work that it could not inspect homes or analyze the potential health risks of mold, beyond disseminating information on its Web site."

What is the administration (EPA or otherwise) doing specifically to assess the mold problem in New Orleans (and elsewhere), address whatever risks it poses, and communicate those risks to citizens?

Response. EPA has coordinated with CDC, OSHA, FEMA and other Federal, State, and local agencies to provide information and guidance to the public on mold-related issues. EPA has been aggressive in distributing mold information and developing additional information that will allow homeowners to take appropriate action to address mold contamination.

*Question 2.* Is the threat posed by mold great enough that it should be influencing people's decisions to return to New Orleans, (or elsewhere in the Gulf)?

Response. Household mold can be a health hazard if not properly addressed. Since mold conditions and cleanup challenges in homes and buildings in New Orleans will vary depending on exposure to floodwaters and construction materials, residents should consult with local officials to inquire about conditions in their neighborhood.

CDC, with input from EPA and OSHA, has issued "Mold, Prevention Strategies and Possible Health Effects in the Aftermath of Hurricanes Katrina and Rita". The report says that people should limit their exposure to mold and that some people may be affected to a greater extent than most healthy adults by exposure to mold—they include infants and children, elderly people, pregnant women, people with respiratory conditions, and people with weakened immune systems.

*Question 3.* Katrina has resulted in widespread spills of oil, industrial chemicals, household hazardous waste, and other toxins. Contaminants in the floodwaters such as chemicals, bacteria, and viruses, once they have dried, could become airborne dust that may pose a serious health risk to citizens.

EPA has generally deferred to the State and local authorities as far as communicating potential health risks to the public, and for deciding whether or not it is safe for citizens to return to a particular area, given the risks of exposure to these and other contaminants.

What specifically is EPA doing to assess the risks posed by the various dried contaminants?

Response. EPA is conducting air monitoring for Particulate Matter, Polycyclic Aromatic Hydrocarbons, metals, asbestos, and volatile organic compounds in Orleans, St. Charles, St. Tammany, and Jefferson Parishes.

*Question 4.* What steps is EPA taking to ensure that the public has a full understanding of the health risks they may face in returning to their neighborhoods, such as land contaminated with oil and chemicals or airborne dust comprised of dried bacteria, viruses, metals or chemicals?

Response. EPA disseminates information and recommendations on potential hazards to first responders and the public through a variety of venues. EPA has posted data and health recommendations from samples of floodwater, floodwater sediment and air on the Agency website and has issued several health advisories. EPA officials provide information to the print press and broadcast media, both in the Hurricane affected areas and with national organizations, including Public Service Announcements for radio. On the ground, EPA has distributed more than 1,000,000 flyers in Louisiana on health hazards, debris management and hazards associated with building reentry. As part of our incident command structure, health and safety officers provide guidance to EPA field responders on a daily basis on the hazards they may encounter and what protection is required.

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STATEMENT OF HON. JOHN PAUL WOODLEY, ASSISTANT SECRETARY FOR CIVIL WORKS, DEPARTMENT OF ARMY

Mr. Chairman and Members of the Committee:

INTRODUCTION

I am John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works. Lieutenant General Carl Strock, Chief of Engineers and I are here to discuss the Corps of Engineers relief and recovery efforts in the wake of Hurricane Katrina.

BACKGROUND

The Corps of Engineers responds to natural disasters under the direction of the Federal Emergency Management Agency, is engaged in disaster response as part of its own flood and storm damage reduction and commercial navigation mission responsibilities, and acts in support of military missions as part of the Department of Defense. The Corps plays a major role in rescue efforts, provides water and shel-



ter, and is setting the stage for recovery through its mission for debris removal and restoration of critical infrastructure and navigation. This work is done largely by civilians. There are 34,000 people in the Corps of Engineers including both the civil works and military programs, but only about 600 of them soldiers like Lieutenant General Strock. When we talk about the Corps of Engineers on the ground in the disaster area, it is the Corps' civilian public servants that come from all over the country to respond. I am proud of the more than 2,900 employees that the Corps currently has deployed in the areas affected by Hurricane Katrina and those who are responding to Hurricane Rita. These good people are responsible for determining requirements and for engaging and supervising private contractors to carry out the work. The Corps' working relationship with local authorities, private citizens and contractors, as well as with other Federal agencies is a very significant part of its mission.

#### THE CORPS ON THE GROUND TODAY

I visited the Hurricane Katrina disaster area on September 16 and 17, prior to Hurricane Rita. I am proud to report the fine work being accomplished by Corps of Engineer personnel and other dedicated professionals throughout the region. The Coast Guard's Vice Admiral Thad Allen, the Principle Federal Official, confirmed that Task Force Hope, the Corps of Engineers group, is an important part of the Federal response team.

I also conferred with Chuck Brown, Assistant Secretary of Louisiana's Office of Environmental Service about their success working with the Corps.

When I flew over both the city of New Orleans and the Gulf coast to Biloxi on September 17, the devastation was immense. But, I saw a recovery process already well on its way: temporary roads built to enable access to critical work sites, the breaches in the 17th Street Canal and the London Street Canal closed and the majority of the city un-watered.

In Gulfport, Mississippi, I met with the State Adjutant—General Major General Harold Cross who reported the seamless integration of the Corps of Engineers into the disaster response support to Mississippi.

The New Orleans District is in the process of reconstituting its organization. These brave men and women are temporarily working at various locations between their headquarters building in New Orleans and the Engineer District headquarters in Vicksburg as they support the relief effort even after many of them have suffered the loss of homes and valued possessions.

After my visit I am assured that the Corps is successfully postured to continue its support to both FEMA and the Department of Defense in their response to the disaster as well as continue with our ongoing civil works mission throughout the Nation.

#### CORPS DISASTER RELIEF AND RECOVERY EFFORTS

The Corps' current efforts from FEMA (for Katrina) will cost about \$3.2 billion. The Corps has transferred \$64 million from other Corps accounts to the Flood Control and Coastal Emergencies program since Hurricane Katrina and has also received \$200 million in supplemental appropriations for this program. There is also an additional \$200 million in supplemental appropriations for the operation and maintenance program, which will fund repairs to water resources projects owned and operated by the Corps that were damaged by Hurricane Katrina, both flood and storm damage reduction projects and Federal commercial navigation harbors and channels.

Lieutenant General Strock will provide more specifics on the results of their efforts.

#### THE CORPS' FUTURE ROLE IN THE DISASTER AREA

While the Corps is focused on disaster relief and recovery, including un-watering New Orleans and surrounding areas, the Administration stands ready to work with local and State officials as they plan for the future of New Orleans and the rest of the Gulf Coast. As we know, New Orleans has a particular challenge because much of the city lies below sea level. The Corps of Engineers will work with the State, city, and parish officials to design and build a flood and storm damage reduction system that is better than before the storm; and these local officials will have a large part in the engineering decisions to come.

The Corps has completed a reconnaissance study that assesses the general engineering feasibility, the economic justification, and the potential environmental implications of providing additional flood and storm protection to New Orleans and the surrounding area. More analysis is required to evaluate a range of options and de-

termine the best way to reduce the risk of future flood and storm damages, and I am looking to the Corps, local officials, and all interested persons to advance these investigations as expeditiously and cost-effectively as possible.

We are especially mindful that the coastal wetlands ecosystem can provide a buffer against the impacts of some storms and thus serves as the foundation upon which projects to reduce the risk of storm damage to the urban areas of the Louisiana coast are constructed. The Administration is working with Congress and the State of Louisiana to develop an appropriate, generic authorization for the Louisiana Coastal Area Ecosystem Protection and Restoration Program that will expedite the approval process for projects and their implementation while providing greater flexibility in setting future priorities and increased opportunities for application of adaptive management decisionmaking.

CONCLUSION

Mr. Chairman, this concludes my statement. I look forward to working with you on matters of mutual interest and concern. Following Lieutenant General Strock's statement, I would be pleased to answer any questions you or the other Subcommittee members may have.

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RESPONSES BY HON. JOHN PAUL WOODLEY, JR., TO ADDITIONAL QUESTIONS  
FROM SENATOR THUNE

*Question 1.* Could you please update me regarding the Army Corps' position regarding water levels on the Missouri River? In particular, is the Corps in any way considering deviating from the Master Control Manual?

Response. The Corps' intent is to operate the Missouri River Mainstem Reservoir System strictly in accordance with the Master Control Manual. At the present time, the Corps is carefully monitoring conditions on both the Missouri and Mississippi Rivers and we do not believe that an emergency situation exists at this time.

*Question 2.* As a result of Hurricane Katrina, is there anything that will slow or impede the Corps work regarding the Cheyenne River Sioux emergency water intake that is underway pursuant to P.L. 84-99?

Response. The Cheyenne River Sioux emergency water intake work is not currently being impacted by Hurricane Katrina efforts. Potential funding impacts could arise if future Emergency Supplemental Appropriations Laws limit the funding to projects impacted by Hurricanes Katrina, Rita, and Ophelia. In that event, the Corps would need to identify an alternate source of funds for the project by January 2006 to allow the project to continue on schedule.

*Question 3.* As the author of S. 1761, the "Gulf Coast Recovery Act" I would appreciate knowing more about how the Army Corps of Engineers (as well as your private sector partners) are impacted by the threat of litigation in post-disaster clean-up efforts.

Response. The Corps of Engineers conducts its emergency recovery efforts in accordance with Federal law and Corps regulations and the threat of litigation does not influence the execution of our missions.

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RESPONSES BY HON. JOHN PAUL WOODLEY, JR., TO ADDITIONAL QUESTIONS  
FROM SENATOR VOINOVICH

*Question 1.* If the funding was available for all of the Army Corps of Engineers projects in the area affected by Hurricane Katrina—at the Corps' capability level—would this have mitigated many of the problems faced in the disaster area?

Response. The impacts of the funding levels are not known at this time. There is no single answer to the question as to why there were failures in the hurricane protection system, as there were multiple breaches of levees and floodwalls at a number of locations and the exact failure mechanism of each is likely to be different. The answer to this will follow from a thorough analysis of the data that the Corps of Engineers is now collecting. What we have to date is evidence of what happened; we can see the final result of the structural behavior, but we cannot yet determine why. That will require more understanding of the design intent of each structure, its condition prior to the storm, the forces to which it was subjected, and the ability to at least simulate how the structure would respond to those forces. This is the objective of the Corps' current interagency analysis efforts.

*Question 2.* The Corps completed the reconnaissance study on whether to strengthen coastal Louisiana's hurricane damage reduction projects to protect

against Category 4 and 5 storms in August 2002. Funding for the feasibility study was included in the Fiscal Year 2005 Omnibus Appropriations bill and the Senate Fiscal Year 2006 Energy and Water Appropriations bill, at the request of the Louisiana congressional delegation. The Administration's budget request has never included funding for this project. Has the Corps ever recommended funding to be included in the Administration's budget for the feasibility study? If the Corps has not requested funding for the feasibility study, why not?

Response. The reconnaissance report for the Hurricane Protection, LA project was completed in August 2002. After the reconnaissance study was started with a congressional add in fiscal year 2001, the Administration requested funds for this project in each of its budget submittals for fiscal years 2002—2004 (\$100,000, \$125,000, and \$100,000, respectively). The actual allocations received for the project for fiscal years 2001—2004 were \$75,000, \$215,000, \$85,100, and \$124,000, respectively. To date, a feasibility study cost sharing agreement has not been executed between the Government and a non-Federal sponsor. For fiscal years 2005 and 2006, the Administration did not request funding for this project. The Congress appropriated \$100,000 for fiscal year 2005 (\$79,000 was allocated) and \$8 million for fiscal year 2006.

*Question 3.* What are your plans for expediting the Category 5 feasibility study?

Response. The Conference Report to the fiscal year 2006 Energy and Water Development Appropriations Act directs me to submit a preliminary technical report for comprehensive Category 5 protection within 6 months of enactment of the Act and a final technical report for Category 5 protection within 24 months of enactment of this Act. In doing so, I am to consider providing protection for a storm surge equivalent to a Category 5 hurricane within the project area and may submit reports on component areas of the larger protection program for authorization as soon as practicable.

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RESPONSES BY HON. JOHN PAUL WOODLEY, JR., TO ADDITIONAL QUESTIONS  
FROM SENATOR OBAMA

*Question 1.* Senator Coburn and I introduced a bill recently to appoint a chief financial officer in the Executive Office of the President to oversee hurricane reconstruction efforts. The bill is meant to ensure that there is oversight on the front end before money is spent, instead of after the money has gone out the door.

Already, we've seen some disturbing examples of poorly spent money. A few weeks ago, Senator Coburn and I highlighted a \$200 million contract that FEMA signed with Carnival Cruise Lines to house evacuees and rescue workers. Under this contract, taxpayers are paying \$2,500 a week per person housed on the ship—four times the cost of a 7-day Caribbean cruise, which includes entertainment.

Please describe how your agency is ensuring that reconstruction funds are being well spent.

Response. We are using our established procurement methods and existing emergency response procedures and procurement oversight procedures. The U.S. Army Corps of Engineers routinely manages emergency response operations. As a part of our planning process, based on the lessons learned from previous events, we establish procedures to cover all phases of our efforts to support FEMA. The Corps has teams that are trained and ready to move into impacted areas at FEMA's request, to provide necessary support like ice, water, temporary power, roofing, and debris removal, or temporary housing. In cooperation with FEMA, we established pre-placed contracts to enable quick reaction to emergencies like Hurricane Katrina. This gives us time to transition to a more long-term solution when that is necessitated by an event the magnitude of Katrina. We are using our established oversight procedures, with some augmentation. First—using our planned response techniques, we rely on existing contracting offices and technical staff for much of the work. We will also be using our normal approval chain for acquisition plans and Justifications & Approvals for exemptions to full and open competition. This would include Department of the Army approval for higher dollar value acquisitions. One of the greatest needs in a response of this magnitude is for Quality Assurance and Technical staff to oversee the work. We are working with many agencies that are supplying qualified staff members for tasks such as quality assurance operations. We are grateful to Federal Agencies such as the Bureau of Recreation, the Army Materiel Command, the Department of Agriculture, the Engineer School at Fort Leonard Wood and even retired USACE employees who are providing staff to augment our operations. Our Internal Review staff also teams with the Defense Contract Audit Agency and Army Criminal Investigative Division to oversee many Corps practices, to include contracting.

*Question 2.* Are there instances when multiple agencies are involved in contracting and procurement decisions? When that happens, who coordinates oversight over these financial decisions?

Response. The standard practice for the recovery missions assigned to the Corps of Engineers is for the Corps to lead its contracting and procurement actions with funding provided by FEMA. If the Corps requires expertise from other agencies, funding is provided as necessary and those agencies would oversee any contracting and procurement actions that they deem necessary.

*Question 3.* In your testimony, you indicate that the Corps has completed a study on the economic justification for providing additional flood and storm protection to New Orleans and the surrounding area.

What did that study conclude? Should additional protection be given to New Orleans and the surrounding area?

Response. The reconnaissance study concluded Federal interest to proceed to a feasibility study based on the analyses conducted for category 4 protection for the East Jefferson Subasin.

*Question 4.* How much will this cost?

Response. A comprehensive analysis for the entire study area was not addressed.

*Question 5.* I've heard concerns that the amount of flood protection that the Corps provides is related to the amount of the potential property damage.

Is this true? If so, does this mean that working folks get less flood protection because their houses are worth less than the houses of millionaires?

Response. Flood damage analyses include an assessment of physical damages, income loss, and emergency costs, and therefore the value of the structures being protected is only one of the benefit categories that are evaluated. It would be premature to venture an assessment as to the economic justification or level of protection for any of the alternatives for increased hurricane protection for the area.

*Question 6.* How are agricultural lands valued? Do you calculate the loss of future crops or just the value of the real estate?

Response. The Corps policy in design of flood damage reduction projects is to provide an optimum degree of protection consistent with safety of life and property. The Corps seeks an economically efficient degree of protection and land use in agricultural areas, and acceptable reduction of risks and preservation of environmental values in protecting other rural and urban areas. Benefits are categorized according to their effect as inundation reduction benefits, intensification benefits, or location benefits. Inundation reduction benefit is the value of reducing or modifying the flood losses to the economic activity using the flood plain without any plan. Inundation reduction benefits are usually measured as the reduction in the amount of flood damages or related costs (those which would be voluntarily undertaken by economically rational individuals to reduce damages). Intensification benefit is the value of more intensive use of the land (e.g., a shift from lower to higher value crops or higher crop yields). Location benefit is the value of making flood plain land available for a new economic use (e.g., where a shift from agricultural to industrial use occurs). The evaluation of the future condition will depend on the project alternatives and their impacts on the value and use of the property.

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RESPONSE BY HON. JOHN PAUL WOODLEY, JR., TO AN ADDITIONAL QUESTION  
FROM SENATOR JEFFORDS

*Question.* The breadth and magnitude of Hurricane Katrina is larger than most Corps disaster response work. The recovery from this storm will be long-term. The Corps' mission is broader than usual given the Agency's responsibilities for the flood protection measures in the region. Does the Corps have the money, people, and authority it needs to handle a recovery of this magnitude?

Response. The Corps is the world's largest public engineering, design, and construction management agency. Military and civilian engineers, scientists, and a range of other specialists work hand-in-hand—in division and district offices located throughout the world and at four major laboratories and research centers—to provide leadership in engineering and environmental matters. They are prepared to meet the demands of changing times and requirements, including emergencies.

In addition, the private sector is an essential element of the engineer team. The Corps employs private architectural, engineering, and construction firms for a high percentage of its design and all of its construction work. The partnership between the Corps and the private sector represents an immediate force multiplier of several

hundred thousand architects, engineers, and builders and is readily convertible to support the Nation in times of national emergency.

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RESPONSES BY HON. JOHN PAUL WOODLEY, JR., TO ADDITIONAL QUESTIONS  
FROM SENATOR INHOFE

*Question 1.* What is the status of efforts to repair the levee system to its pre-Katrina level? Is the Corps moving forward with the intent of simply replacing what was there? Or are you looking at other design options?

Response. With our contractors, we are working around the clock on the levees and floodwalls to provide an interim level of protection to see the city through this hurricane season, which continues until the end of November, and the rainy season that the city normally experiences in December and January. The goal of this effort is to restore the pre-storm level of protection before the start of the next hurricane season, which begins in June 2006. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. As we learn we will immediately act to incorporate those findings into the interim and long term work in which we are engaged.

*Question 2.* What kind of interactions with other agencies, the city or the state taking place to ensure that decisions as to when and where people will return are coordinated with the Corps' decisions on rebuilding the levee system?

Response. The Corps will work in close partnership with the states of Louisiana and Mississippi, the city of New Orleans, and other Gulf Coast cities, so they can rebuild in a thoughtful, well-considered way. The Corps is likely to have an active role in the restoration of public infrastructure in the disaster zone. We will be fully engaged in the effort to further strengthen Federal support for the region affected by Hurricane Katrina and Hurricane Rita through the Gulf Coast Recovery and Rebuilding Council. In accordance with President Bush's executive order of November 1, 2005, the Corps will be not only be responsive to, but also proactive in, providing effective, integrated, and fiscally responsible support to State, local, and tribal governments, the private sector, and faith-based and other community humanitarian relief organizations in the recovery and rebuilding of the Gulf Coast region affected by Hurricane Katrina and Hurricane Rita.

*Question 3.* I believe it would be a mistake to move forward with the various projects in the affected area independently, without taking a comprehensive look at how these missions can be integrated. For instance, rebuilding or expanding a levee that we'll need to breach in a couple years as part of our wetlands restoration efforts may not make the most sense. What is the Corps doing now or preparing to propose doing to ensure this comprehensive integration of activities?

Response. Our assessment of rebuilding existing projects or potential new projects for higher levels of protection includes an awareness of the relationship of the Louisiana Coastal Area (LCA) project and hurricane protection proposals. Coastal restoration provides numerous environmental and ecosystem benefits. These measures can also provide elements that will benefit hurricane protection in southeast Louisiana. Significant restoration of coastal wetlands and barrier islands could offer surge reduction benefits to hurricane protection projects. Proposals for hurricane protection and coastal restoration will be compatible and complementary.

*Question 4.* Earlier this year, this Committee passed a WRDA bill that authorizes a program for restoring the coastal wetlands. Where are we in assessing the affect of the hurricane on the coastline? Do we know yet whether the projects described in the LCA report are still feasible and advisable? If not, do we have an approximate timeframe for having the necessary assessments and determinations completed? Do you need anything from Congress in order to do that?

Response. The U.S. Geological Survey (USGS) has indicated that Hurricanes Katrina and Rita impacted at least 100 square miles of marshland along Louisiana's coastline. Wetlands east of the Mississippi River suffered the most severe damage, including 39 square miles lost from Breton Sound, 14 square miles from the mouth of the Mississippi River, and 6 square miles from the lower Pearl River basin. In some areas, the USGS stated that the losses exceeded projections for coastal erosion over the next 50 years. The projects described in the LCA report are not only still feasible, but now even more essential. The President has recently requested that \$250M of the Federal money already provided by Congress in the Emergency Sup-

plemental be “reallocated” for funding wetlands restoration projects that would enhance flood protection for the greater New Orleans area.

STATEMENT OF LIEUTENANT GENERAL CARL A. STROCK, CHIEF OF ENGINEERS, U.S.  
ARMY CORPS OF ENGINEERS, DEPARTMENT OF THE ARMY

INTRODUCTION

Mr. Chairman and distinguished members of the Committee, I am Lieutenant General Carl A. Strock, Chief of Engineers. I am honored to be testifying before your Committee today, along with the Assistant Secretary of the Army (Civil Works), the Honorable John Paul Woodley, Jr., on the United States Army Corps of Engineers’ activities related to Hurricane Katrina. My testimony today will provide a brief background and update the Committee on progress made to date on relief efforts by the Corps of Engineers in support of FEMA’s response and recovery mission, as well as an update on the status of the levees around the greater New Orleans area and the principal commercial navigation channels.

BACKGROUND

The Corps of Engineers responds in three ways to natural disasters. First, we act as part of the Federal response under the direction of the Federal Emergency Management Agency. Second, we act under our own civil works authorities, which in the area impacted by Katrina involve principally our flood and storm damage reduction and commercial navigation missions. Finally, we provide engineering assistance as needed in support of the Department of Defense military forces who are responding to the disaster. In all cases, our priorities are to support efforts to save lives and find people, to sustain lives through provision of water and shelter, and to set conditions for recovery, such as debris removal and cleanup, and restoring critical infrastructure and navigation.

SUPPORT OF FEMA

In support of FEMA and the National Response Plan, we are responsible for Emergency Support Function 3 (ESF-3), one of 15 Emergency Support Functions that come together prior to, and during a disaster. Under ESF-3, we have a mission to provide ice, water, temporary power, and debris removal. For these pre-scripted missions, we have standing contracts and we move these capabilities forward to major mobilization sites prior to landfall. From there, we have operational support areas that are throughout the disaster area, where commodities flow when they are needed.

We also provide temporary roofing on damaged buildings. In the past, we have been requested and had responsibility for the temporary housing mission. In the case of Hurricane Katrina, FEMA has elected to stand up a task force, the Housing Area Command, which is under the direction of FEMA. We will continue to support this with technical expertise and execution, but FEMA is handling the temporary housing mission now. We also provide other technical assistance at the request of FEMA on an as-needed basis.

Each of these missions is performed by groups of Corps of Engineers employees from around the globe who are trained and ready prior to the advent of a disaster and know that when a disaster occurs, they will be called in to respond. We have them standing by in various stages of readiness.

CORPS OF ENGINEERS’ INHERENT MISSION RESPONSIBILITIES

In addition to our support of the broader response effort that FEMA coordinates, the Corps of Engineers has its own responsibilities in flood and storm damage reduction and commercial navigation. For example, we conduct surveys of all the structures in the area, both navigation and flood and storm damage reduction, and then begin to make repairs. We are also working under our PL 84-99 authority with the affected parishes to repair levee systems that were damaged during the event. Under the flood and storm damage reduction authorities that govern the civil works program, we repair Corps owned structures and some non-Corps owned structures.

STATUS OF OUR ONGOING EFFORTS IN THE DISASTER AREA

Volunteers from several Federal agencies have joined the Corps team in providing support to FEMA. We are working closely with the Bureau of Reclamation, the Environmental Protection Agency, the U.S. Coast Guard and the Army Material Command. In addition, Germany and the Netherlands have provided equipment and

personnel to assist in the hurricane recovery. Currently we have nearly 2,900 Corps employees deployed in the affected areas. We estimate that meeting our assignments to date for Katrina from FEMA will cost about \$3.2 billion. We have transferred \$64 million from other Corps accounts to our Flood Control and Coastal Emergencies program since Hurricane Katrina and also have received \$200 million in supplemental appropriations for this program. We have also received an additional \$200 million in supplemental appropriations for our operation and maintenance program, which will fund repairs to water resources projects owned and operated by the Corps that were damaged by Hurricane Katrina, both flood and storm damage reduction projects and Federal commercial navigation harbors and channels.

To date, more than 4,000 truckloads of water and 2,100 truckloads of ice have been delivered. We have conducted pre-installation inspections on 875 generators, have installed 267 generators, and have de-installed 199 generators because they were no longer needed. We have installed more than 32,000 temporary roofs and nearly 67,000 Right of Entry forms have been submitted to the Corps by people affected by the disaster. We estimate that roughly 105,000 roofs will need temporary roofing installed. Finally, we have removed almost 6.9 million cubic yards of debris to date.

The Corps of Engineers is performing a detailed assessment of the levee system. The 17th Street and London Canal levees have been closed and repaired. The levees in Plaquemines Parish are being repaired now. There were a total of twenty-seven levee breaks, including the eight deliberate levee breaks we made to assist in the un-watering of New Orleans. It is important that leaders and residents understand that there is risk to life and property in re-entering flooded areas until additional emergency levee repairs have been made. Pumps that are designed to remove water must also be returned to an operational status. State and local leaders are advised to ensure effective warning and evacuation plans are in place as long as protection levels are diminished. State and local leaders will be kept informed as assessments are complete and repairs are made.

Prior to Hurricane Rita, we were making steady progress on pumping out floodwaters from the city of New Orleans. The arrival of Hurricane Rita and the subsequent flooding of parts of the New Orleans area has impacted the schedules for un-watering some areas. The un-watering is continuing as quickly as possible. The number of pumps that are operational at any given time is continually changing. It is expected that the 9th Ward and New Orleans East will be un-watered October 5. Water removal in Plaquemines is expected to be completed October 18. St. Bernard's Parish is essentially dry.

The U.S. Coast Guard Captain of the Port of New Orleans has lifted all restrictions on the Lower Mississippi River. The Gulf Intracoastal Waterway (GIWW) is also open. Industry and the Corps have worked out an operating plan for Calcasieu Lock to balance drainage, especially during scheduled bridge closures, and navigation safety. Shallow draft tows and light tug traffic are allowed 24 hours on the Calcasieu River. Deep draft vessels are restricted to 35 feet draft, and daylight only from the Lake Charles Interstate-10 bridge to the jetties. The gates are fixed on the Leland Bowman Lock, and the lock is open and barges are passing through without problems. Harvey Lock is also open. The Inner Harbor Navigation Canal (IHNC) Lock is operational, and the canal is restricted to vessels 110ft wide by 18ft draft due to a sunken dry-dock and other obstructions. The Mississippi River Gulf Outlet (MRGO) is closed to deep draft vessels. The inland portion will serve as an alternative route to the GIWW due to closure of IHNC for shallow draft vessels deeper than 18 feet. Critical aids to navigation are in place for this portion of the MRGO. Our preliminary surveys indicate a controlling depth of 23 feet and the Captain of the Port of New Orleans has declared MRGO available to draft of 23 feet. Port Fourchon sustained significant damage, but is operating to a limited extent. The U.S. Coast Guard Captain of the Port has opened the Atchafalaya River from Mile 0 to the Gulf. Tiger Pass is shoaled to less than 6 feet. This channel, authorized to 14 feet, provides a shorter route for vessels traveling to the west from the Mississippi River near the mouth and is primarily used by fishing and supply vessels. We are preparing a contract to dredge the channel. The Port of Morgan City has experienced some shoaling and dredging is being scheduled.

We are working closely with local, State, and Federal experts on monitoring the water quality as the water is pumped out of the City. As we get to the final amounts of water, we may encounter more concentrated levels of contaminants that will require special attention and handling. It is important to note that the un-watering effort will remove most, but not all the water. The remaining isolated pockets of water should not hamper recovery efforts such as debris removal, structural assessments and restoration of critical services.

## OUR FUTURE ROLE IN THE DISASTER AREA

At this time, the Corps is focused on disaster relief and recovery, including un-watering New Orleans and surrounding areas. We are also currently implementing a plan to reconstitute our New Orleans District office, which has been closed since the Hurricane. I am happy to report that all 1,229 employees of the District have been accounted for.

This concludes my statement. Again, I appreciate the opportunity to testify today. I would be pleased to answer any questions you may have.

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 RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
 FROM SENATOR THUNE

*Question 1.* Could you please update me with respect to the Army Corps position regarding water levels on the Missouri River? In particular, is the Corps in any way considering deviating from the Master Control Manual?

Response. The Corps' intent is to operate the Missouri River Mainstem Reservoir System strictly in accordance with the Master Control Manual. At the present time, the Corps is carefully monitoring conditions on both the Missouri and Mississippi Rivers and we do not believe that an emergency situation exists at this time.

*Question 2.* As a result of Hurricane Katrina, is there anything that will slow or impede the Corps work regarding the Cheyenne River Sioux emergency water intake that is underway pursuant to P.L. 84-99?

Response. The Cheyenne River Sioux emergency water intake work is not currently being impacted by Hurricane Katrina efforts. Potential funding impacts could arise if future Emergency Supplemental Appropriations Laws limit the funding to projects impacted by Hurricanes Katrina, Rita, and Ophelia. In that event, the Corps would need to identify an alternate source of funds for the project by January 2006 to allow the project to continue on schedule.

*Question 3.* As the author of S. 1761, the "Gulf Coast Recovery Act" I would appreciate knowing more about how the Army Corps of Engineers (as well as your private sector partners) are impacted by the threat of litigation in post-disaster clean-up efforts.

Response. The Corps of Engineers conducts its emergency recovery efforts in accordance with Federal law and Corps regulations and the threat of litigation does not influence the execution of our missions.

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 RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
 FROM SENATOR VOINOVICH

*Question 1.* noticed, in the fiscal year 2006 Budget Resolution, that the Corps and OMB prioritize construction funding for projects with the highest net economic and environmental return. Do you consider threat assessment as well?

Response. While the Administration supports new and continuing construction that offers maximum returns to the Nation, it also emphasizes essential maintenance and security activities at key Corps facilities.

*Question 2.* Can you explain further how the Corps and the OMB select projects to receive funding in the President's Budget request?

Response. Funding is targeted to completing the best existing projects, and to a limited number of new projects whose benefits to the Nation greatly exceed their costs. Performance-based program development is development of only those programs, and only those parts of those programs, that can be justified by the results produced, or to be produced. Results may be in the form of outputs or outcomes. Performance based program development is designed not only to ensure prosecution of only clearly justified programs, but also, to ensure that business program increments are added such that the first-added increment provides the best results or returns, the second-added increment provides the second-best results or returns, etc. The increments are added in order of priority, both within and across business programs, to build total programs of whatever size, depending on available funding.

In response to the Government Performance and Results Act of 1993 (GPRA), the Corps established its business programs by program purpose, such as navigation, environment, and flood and coastal storm damage reduction, rather than by function (e.g., investigations, construction, operation and maintenance, etc.). Consistently, the Corps programs by program purpose, and, once Army finishes program development, assists Army in cross-walking results to appropriation accounts, set up by



function, for use by OMB in developing the President's program. Business programs include navigation, environment, flood control and coastal storm damages, hydro-power, recreation, regulatory, emergency management, and water supply.

RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
FROM SENATOR OBAMA

*Question 1.* Senator Coburn and I introduced a bill recently to appoint a chief financial officer in the Executive Office of the President to oversee hurricane reconstruction efforts. The bill is meant to ensure that there is oversight on the front end before money is spent, instead of after the money has gone out the door.

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Response. We are using our established procurement methods and existing emergency response procedures and procurement oversight procedures. The U.S. Army Corps of Engineers routinely manages emergency response operations. As a part of our planning process, based on the lessons learned from previous events, we establish procedures to cover all phases of our efforts to support FEMA. The Corps has teams that are trained and ready to move into impacted areas at FEMA's request, to provide necessary support like ice, water, temporary power, roofing, and debris removal, or temporary housing. In cooperation with FEMA, we established pre-placed contracts to enable quick reaction to emergencies like Hurricane Katrina. This gives us time to transition to a more long-term solution when that is necessitated by an event the magnitude of Katrina. We are using our established oversight procedures, with some augmentation. First—using our planned response techniques, we rely on existing contracting offices and technical staff for much of the work. We will also be using our normal approval chain for acquisition plans and Justifications & Approvals for exemptions to full and open competition. This would include Department of the Army approval for higher dollar value acquisitions. One of the greatest needs in a response of this magnitude is for Quality Assurance and Technical staff to oversee the work. We are working with many agencies that are supplying qualified staff members for tasks such as quality assurance operations. We are grateful to Federal Agencies such as the Bureau of Recreation, the Army Materiel Command, the Department of Agriculture, the Engineer School at Fort Leonard Wood and even retired USACE employees who are providing staff to augment our operations. Our Internal Review staff also teams with the Defense Contract Audit Agency and Army Criminal Investigative Division to oversee many Corps practices, to include contracting.

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Response. The standard practice for the recovery missions assigned to the Corps of Engineers is for the Corps to lead its contracting and procurement actions with funding provided by FEMA. If the Corps requires expertise from other agencies, funding is provided as necessary and those agencies would oversee any contracting and procurement actions that they deem necessary.

*Question 3.* In your testimony, you explain that part of the Army Corps' mission under the National Response Plan is to provide ice and water. Like many Americans, I found it disgraceful that folks in the Superdome and New Orleans Convention Center did not receive water for days after the hurricane, while at the same time trucks full of ice were apparently driving around the country at the taxpayer's expense.

Can you explain how this happened and what steps you're taking to ensure that it doesn't happen in any future natural disasters?

Response. There is a ramp-up period built into the ice and water contracts to take into account the normal process time that is experienced by the contractor. The contract envisions an order being made for a multiple day quantity—not daily orders that only cover the next 24-hour period. Therefore, once a definite order is placed, the contractor has to provide 25 percent of the total order within 24 hours; 50 percent of the total order within 48 hours; 75 percent within 72 hours; and 100 percent within 96 hours. Given a 10 day somewhat steady state order, the first 2 days re-

quirements would be delivered within 24 hours, etc. When an order is made for a large amount for one day—such as a 450 truckload order for one day, followed the next day by another—the system doesn't work because the contractor can't see the ramp up into the future. While a one day requirement for a reasonable amount might be available, the second day amount may not be normally replenished that quickly—while a multiple day order allows the industry to begin to ramp up for increased production and delivery.

The Corps has teams that are trained and ready to move into impacted areas at FEMA's request, to provide necessary support like ice, water, temporary power, roofing, and debris removal, or temporary housing. In cooperation with FEMA, we established pre-placed contracts to enable quick reaction to emergencies like Hurricane Katrina. As the commodities were being prepared and shipped, the situation on the ground was very dynamic, and projections of needs changed frequently as mass evacuations took place and many people moved out of the disaster area. These changes led to changes, transmitted to the Corps from FEMA, rerouting commodities to different staging areas and eventually to storage facilities as supply began to exceed demand. As this situation developed, some truckers were rerouted while attempting to deliver their commodities, and some were put in holding patterns as storage facilities were readied to accept their deliveries.

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RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
FROM SENATOR JEFFORDS

*Question 1.* General Strock, who was the first Corps employee to report the levee breach, when did that report occur, and when were state and local officials notified?

Response. Leaders of the New Orleans District first learned that levees and storm surge barriers had been compromised via phone calls from local first responders (firemen) and Corps employees on the Inner Harbor Navigation Canal (IHNC) navigation lock. At approximately 1:00 PM on 29 August 2005 after the strong winds had subsided, Corps personnel, including Colonel R. Wagenaar, who stayed at the district during the storm, attempted to drive to the 17th street canal to verify the reports of a breach in the hurricane protection system. Flooded roadways and darkness prevented the team from reaching the canal to confirm the reported breach. They were able to validate the levee breach on Tuesday, and they began implementing a plan to fix the breach. Personnel in the Corps Emergency Operations Center heard news reports of a possible breach on the London Avenue Canal but were not able to confirm the reports. On 31 August 2005, New Orleans district Corps personnel were able to confirm the breach in the vicinity of Robert E Lee Blvd and the breach at Mirabeau Ave. after getting assistance from a search and rescue boat crew. Employees at the Corps IHNC navigation locks noticed a breach in the hurricane protection system and notified their supervisory chain.

*Question 2.* In July 2004, emergency officials conducted a planning scenario in Louisiana to address a Category 3 hurricane. The debris team for this exercise estimated that the storm would result in 30 million cubic yards of debris and 237,000 cubic yards of household hazardous waste. How are EPA and the Corps working together to manage this large quantity of debris, including hazardous materials and the potential air quality impacts of any open burning?

Response. Through October, over 14 million cubic yards of debris has been removed in the areas affected by Hurricane Katrina. It is estimated that nearly the Corps will remove 40 million cubic yards during cleanup efforts. Some communities are allowing burning of debris; others have prohibited open air burn. As not all the communities have opted for Federal debris assistance, we can't speak for reduction methods in those communities that have let their own contracts. The Corps complies with both state DEQ and city or county directives. If allowed to burn, the Corps generally conducts air-curtain incineration where there is greater debris reduction achieved with little to no smoke emitted. Air curtain burning is a process that includes a pit and a machine that injects about 2000 degree Fahrenheit heat into it and then circulates the air so that nothing leaves the pit. It is all re-circulated back into the flame until everything, including the smoke, is burned. The Louisiana DEQ and EPA sort out any hazardous material before it gets into the incineration pit. The EPA and the Coast Guard are guiding the disposal of hazardous material at certified waste landfills that are able to handle such material.

*Question 3.* General Strock, you have stated in the past that there were internal reforms that could be made to improve the performance of the Corps, such as independent peer review of Corps projects. Given your experiences with the Katrina relief efforts and the expected rebuilding the Corps will be involved in, what changes

do you think the Corps needs to make to its project development and cost benefit analysis to ensure that Federal tax dollars are going to the most beneficial and necessary projects?

Response. The Corps' performance based program development is designed to ensure prosecution of only clearly justified programs. The Corps Flood and Coastal Storm Damage Reduction program is well established and valued. However, our ability to continue to reduce flood risks to meet the needs of current and future generations is dependent upon adequate investments. Such investments provide for the necessary investigations of problems and development of projects, timely implementation of authorized projects, proper inspections of Corps and local projects, preventative maintenance or facility modernization or improvement, improvements to ensure the reliability and safety of projects, adequate data collection or improvements to increase operational efficiencies. Accordingly, a nationwide perspective is maintained to assure that available funding provides the greatest public benefit for the investment. The safety and security of our existing infrastructure must be maintained, new investigations to address serious flood risks must be conducted and our uncompleted projects must be brought on line quickly so that benefits may be achieved as soon as possible. Prioritization of projects is based on many factors, such as the number of people at risk in 100 year floodplain, the total population in the 100 year floodplain, estimated average annual damages (without project), the benefit to cost ratio, and the remaining benefits remaining costs ratio. If there is a change needed in the project development and cost benefit analysis for these types of projects, it could include investigating whether the National Economic Development analysis is the appropriate benchmark for project recommendation. Several of the communications that we have received following Hurricane Katrina suggest that the Corps base its project development on planning for a catastrophic event rather than the project that maximizes net economic development benefits.

*Question 4.* General Strock, does the Corps have the expertise to provide technical advice regarding redevelopment patterns that would reduce hurricane and flooding impacts and maximize opportunities for wetlands redevelopment, which is so important to the people of Louisiana?

Response. Yes. Local and State officials will lead the future discussions for rebuilding New Orleans, but the Corps of Engineers can advise communities, industries, and property owners on protection measures they can take themselves, such as zoning regulations, warning systems and flood proofing, as well as means to maximize opportunities for wetlands redevelopment.

*Question 5.* General Strock, can you describe our current system is adequate for: establishment of levee safety standards, responsibility for operation and maintenance of levee systems once constructed, cost sharing for construction and for maintenance, and ongoing review of the safety of our Nation's levees?

Is that system adequate to ensure levee safety throughout the Nation?

Response. The Corps has an Inspection of Completed Works program to assure sponsor compliance with existing agreements that the structures and facilities constructed by the United States for flood protection will be continuously maintained in such a manner and operated at such times and for such periods as may be necessary to obtain the maximum benefits. The Corps annually inspects projects that protect urban areas or ones where failure would be catastrophic and result in loss of life. Rural projects are initially scheduled for an inspection every second year. Out-of-cycle inspections may be performed, if necessary. Unfortunately, it is unlikely that any system will ensure levee safety throughout the Nation. The Corps stands ready, however, to work with other Federal, state, and local agencies and the public to improve our system and processes for evaluating levee safety.

*Question 6.* You have described the Corps' role in the days preceding and the immediate aftermath of Hurricane Katrina. Knowing what you know today, would you have done anything differently?

Response. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. An after-action review of the response will be conducted once our recovery operations are complete. We will learn from what went well, and identify areas needing improvements.

*Question 7.* During your performance of your duties under Emergency Support Function 3 to provide water and ice, did the Corps observe any problems in terms of delivery to those in need?

Response. The Corps has followed its normal procedures, pre-positioning ice and water at staging areas prior to the storm. Following the storm, at FEMA's direction, we ordered very large additional quantities of these commodities, about 170 million lbs of ice, and more than 5,500 truckloads of bottled water, to meet the anticipated need, especially in Louisiana, Mississippi and Alabama coastal counties. As the commodities were being prepared and shipped, mass evacuations took place and many people moved out of the immediate disaster impact area. The location of need became a moving target—or indeed multiple moving targets. This dynamic situation led FEMA to reroute water and ice to different staging areas. Many people evacuated to cities that did not need long-term supplies of water and ice because they had functioning utilities. Thus, supply began to exceed the demand estimated when Katrina's magnitude became known. Truckers were again re-directed to storage facilities. Some truckers were rerouted while attempting to deliver their commodities and some sat on hold while storage facilities were made ready to accept their deliveries. The current situation is that available supply of ice and water exceeds the demand for Hurricane Katrina relief and emphasis is being placed on keeping commodities ready for future needs.

*Question 8.* Will the Corps re-evaluate new projects pending Congressional authorization such as the Louisiana Coastal Area ecosystem restoration project to determine if the current project plans remain viable after the affects of Katrina and if so, what is your timeline?

Response. On a case-by-case basis, and subject to the availability of funding and timing of project authorization, the Corps could re-evaluate projects pending Congressional authorization if it is expected that conditions have changed significantly enough to modify the recommendation of the Chief of Engineers. The appropriate Congressional sub-committees will be notified in a timely manner of any potential authorization issues.

*Question 9.* Has the Corps already, or do you have plans to, evaluate the vulnerability of all Army Corps' infrastructure in the Gulf of Mexico region to determine its vulnerability to further intense hurricane activity in the coming years?

Response. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. At this time, the Corps lacks the authority and funding to evaluate other Corps infrastructure in the Gulf of Mexico.

*Question 10.* What steps has the Corps taken across the Nation to cooperate with local communities to ensure that those located "downstream" of flood protection features, including dams, have adequate emergency response plans in the event of a catastrophic failure?

Response. It is our policy that an emergency plan for each dam, including a notification procedure, be prepared and kept accurate, complete and current. Development of an evacuation plan is a non-Federal responsibility and the Corps strongly encourages the appropriate State or local officials to develop evacuation plans as part of the overall dam safety program.

*Question 11.* Will the Corps conduct a comprehensive, integrated review of Corps infrastructure and pending projects to determine if projects should be modified to use different approaches to flood control, including non-structural methods such as relocations? Please describe if the lessons learned in the exercise are being applied here.

Response. At this time, the Corps does not plan to conduct a comprehensive, integrated review of Corps infrastructure and pending projects. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. Through this investigation, the Corps will be able to identify lessons learned and ways to potentially improve the performance of the existing hurricane protection system at the authorized level of protection. As a learning organization, the Corps systematically learns what works and what does not work from its experience and any increased innovation, effectiveness, and performance could ultimately be applied to other projects.

*Question 12.* Have delays in obtaining sampling results affected your ability to manage water quality issues surrounding the de-watering of New Orleans?

Response. No. The Corps worked closely with EPA to develop a collaborative approach for managing potential water quality/ecosystem impacts associated with the

un-watering effort. EPA identified 5 water quality areas of concern. As directed, the Corps worked to quickly initiate a monitoring program to sample water and sediment. We sampled at locations in the canals leading to the pumps as well as on the discharge side of the pumps in the immediate outfall areas in Lake Pontchartrain. The U.S. Coast Guard, in conjunction with the Corps, placed and maintained fresh sorbent booms at major outfalls to Lake Ponchartrain to adsorb oil and other floating chemicals from pumped flood waters. Additionally, the Corps deployed artificial aerators in the major canals to Lake Pontchartrain to enhance dissolved oxygen concentrations and volatilize any aromatic compounds in the water.

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RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
FROM SENATOR LAUTENBERG

*Question 1.* For years, community leaders, scientists, and citizen groups have argued that the Mississippi River Gulf Outlet was like a gun pointing directly at New Orleans. They argued that the outlet would funnel storm surges directly to New Orleans. Recent newspaper reports suggest that this is in fact what happened.

When the Corps recently decided not to close the Mississippi River Gulf Outlet, did you consider the risk of funneling storm surges?

Response. The authorized channel in a fully open condition was modeled for nine storm scenarios using the Advanced Circulation Model for Oceanic, Coastal, and Estuarine Waters (ADCIRC). The nine storm scenarios were combinations of a weak, moderate, or strong intensity in combination with either a slow, moderate, or fast forward speed. All storm scenarios used the same track that was selected to maximize the winds parallel to the MR-GO and yet minimize the easterly component across Lake Borgne. This case would produce the maximum case for the storm surge analysis. The conclusion reached from the ADCIRC modeling analysis was that the MR-GO has minimal influence on storm surge propagation in the study area.

*Question 2.* In light of Katrina, do you believe the decision not to close the Mississippi River Gulf Outlet was correct?

Response. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. One of the most fundamental needs for the task force is understanding the storm surge and wave conditions that resulted from the hurricane. The surge and wave levels were likely significantly different in different parts of the region, especially in confined areas such as the canals and waterways and for the areas immediately adjacent to the lakes. The differences in the surge and waves with time and location equate to differences in the forces experienced by the various flood control structures which related directly to understanding their performance. The most advanced numerical hydrodynamic models will be used to generate this information. Understanding the true consequences of the system's performance is critical to understanding the risk factors for future decision making.

*Question 3.* Coastal wetlands provide important protections from storm surges and all wetlands help absorb flood waters and reduce flooding impacts. The Corps has known for years that there is a significant problem with coastal and other wetland losses in Louisiana.

What steps is the Corps taking right now to minimize additional wetland losses along the coast of Louisiana?

Response. Many of the features of the proposed Louisiana Coastal Area Ecosystem Restoration Project would provide a benefit by preventing on-going wetlands loss through subsidence, creating new marsh and nourishing existing marsh. While there is adequate justification for coastal wetlands restoration for a host of reasons, it is also certain that these features would also provide an important component of the storm damage reduction system by helping to maintain the integrity of the landscape surrounding that system. According to the United States Geological Survey, one mile of wetland reduces storm surge by one foot. It is crucial that the storm damage reduction system include components that complement coastal restoration and management features. The President has recently requested that \$250M of the Federal money already provided by Congress in the Emergency Supplemental be "reallocated" for funding wetlands restoration projects that would enhance flood protection for the greater New Orleans area.

*Question 4.* Once the Corps is done with the immediate task of stabilizing the levees and floodwalls around New Orleans, will the Corps reevaluate other Federal

projects and activities that will add to wetland losses and exacerbate flooding risks in the region?

Response. Our assessment of rebuilding existing projects or potential new projects for higher levels of protection includes an awareness of the relationship of the Louisiana Coastal Area (LCA) project and hurricane protection proposals. Coastal restoration provides numerous environmental and ecosystem benefits. These measures can also provide elements that will benefit hurricane protection in southeast Louisiana. Significant restoration of coastal wetlands and barrier islands could offer surge reduction benefits to hurricane protection projects. Proposals for hurricane protection and coastal restoration will be compatible and complementary.

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RESPONSES BY LIEUTENANT GENERAL CARL STROCK TO ADDITIONAL QUESTIONS  
FROM SENATOR INHOFE

*Question 1.* What is the status of efforts to repair the levee system to its pre-Katrina level? Is the Corps moving forward with the intent of simply replacing what was there? Or are you looking at other design options?

Response. With our contractors, we are working around the clock on the levees and floodwalls to provide an interim level of protection to see the city through this hurricane season, which continues until the end of November, and the rainy season that the city normally experiences in December and January. The goal of this effort is to restore the pre-storm level of protection before the start of the next hurricane season, which begins in June 2006. The Corps has established an independent performance evaluation task force to provide credible, objective engineering and scientific answers to fundamental questions about the operation and performance of the hurricane protection projects in the New Orleans metropolitan area that were flooded by Hurricane Katrina. As we learn we will immediately act to incorporate those findings into the interim and long term work in which we are engaged.

*Question 2.* What kind of interactions with other agencies, the city or the state taking place to ensure that decisions as to when and where people will return are coordinated with the Corps' decisions on rebuilding the levee system?

Response. The Corps will work in close partnership with the states of Louisiana and Mississippi, the city of New Orleans, and other Gulf Coast cities, so they can rebuild in a thoughtful, well-considered way. The Corps is likely to have an active role in the restoration of public infrastructure in the disaster zone. We will be fully engaged in the effort to further strengthen Federal support for the region affected by Hurricane Katrina and Hurricane Rita through the Gulf Coast Recovery and Rebuilding Council. In accordance with President Bush's executive order of November 1, 2005, the Corps will be not only be responsive to, but also proactive in, providing effective, integrated, and fiscally responsible support to State, local, and tribal governments, the private sector, and faith-based and other community humanitarian relief organizations in the recovery and rebuilding of the Gulf Coast region affected by Hurricane Katrina and Hurricane Rita.

*Question 3.* I believe it would be a mistake to move forward with the various projects in the affected area independently, without taking a comprehensive look at how these missions can be integrated. For instance, rebuilding or expanding a levee that we'll need to breach in a couple years as part of our wetlands restoration efforts may not make the most sense. What is the Corps doing now or preparing to propose doing to ensure this comprehensive integration of activities?

Response. Our assessment of rebuilding existing projects or potential new projects for higher levels of protection includes an awareness of the relationship of the Louisiana Coastal Area (LCA) project and hurricane protection proposals. Coastal restoration provides numerous environmental and ecosystem benefits. These measures can also provide elements that will benefit hurricane protection in southeast Louisiana. Significant restoration of coastal wetlands and barrier islands could offer surge reduction benefits to hurricane protection projects. Proposals for hurricane protection and coastal restoration will be compatible and complementary.

*Question 4.* Earlier this year, this Committee passed a WRDA bill that authorizes a program for restoring the coastal wetlands. Where are we in assessing the affect of the hurricane on the coastline? Do we know yet whether the projects described in the LCA report are still feasible and advisable? If not, do we have an approximate timeframe for having the necessary assessments and determinations completed? Do you need anything from Congress in order to do that?

Response. The U.S. Geological Survey (USGS) has indicated that Hurricanes Katrina and Rita impacted at least 100 square miles of marshland along Louisiana's coastline. Wetlands east of the Mississippi River suffered the most severe damage,

including 39 square miles lost from Breton Sound, 14 square miles from the mouth of the Mississippi River, and 6 square miles from the lower Pearl River basin. In some areas, the USGS stated that the losses exceeded projections for coastal erosion over the next 50 years. The projects described in the LCA report are not only still feasible, but now even more essential. The President has recently requested that \$250M of the Federal money already provided by Congress in the Emergency Supplemental be "reallocated" for funding wetlands restoration projects that would enhance flood protection for the greater New Orleans area.

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STATEMENT OF RICHARD J. CAPKA, ACTING ADMINISTRATOR, FEDERAL HIGHWAY  
ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

INTRODUCTION

Mr. Chairman, Members of the Committee, thank you for the opportunity to appear before you today to discuss the Federal Highway Administration's (FHWA) actions in response to Hurricane Katrina. Our hearts go out to all those affected by the recent hurricanes, and we look forward to continuing our efforts to help the citizens of the Gulf Coast rebuild their transportation infrastructure and their lives. These storms have presented enormous challenges to all those involved, but the events also have helped to bring out the best in the public servants at our Agency, and I am grateful for their continued service.

I visited the affected areas with Louisiana's Secretary of Transportation, Johnny Bradberry, and Mississippi Department of Transportation's Executive Director, Butch Brown, and the Highway Commission Chairman, Wayne Brown, and had an opportunity to see the devastation first hand. While TV coverage, aerial surveys, and photos of bridge and roadway damage along I-10, US 90, and other area roads tell the story of Katrina's force, they could not convey the full impact of the devastation that I witnessed.

Critical sections of Federal-aid highways in New Orleans were submerged for an extended period of time. Portions of Highway 23 in Plaquemines Parish, which serve communities and petro-chemical facilities, remain under water. An I-10 bridge structure at Pascagoula was damaged, forcing single lane traffic across the remaining structure. Highway bridges along both I-10 and US 90 had huge deck slabs, weighing many tons, shifted and lifted off their support piers and dumped into the water. Massive casino barges along the Mississippi coast were yanked from their moorings and deposited onto US 90 at locations, in some cases, that were more than a mile away from their original sites. US 90, an important artery for Gulf Coast residents, was impassible in numerous locations due to the debris and structural damage. This highway infrastructure damage represents only a small fraction of the total devastation inflicted on the communities in Mississippi and Louisiana.

The United States Department of Transportation (U.S. DOT) and FHWA remain firmly committed to helping the ravaged areas recover as quickly as possible. There is much work to be done in both the short-term and long-term. FHWA has been working closely with our State and Federal partners before, during, and after the storm. Today, I would like to share with you some of the details related to our response.

PRE-HURRICANE ACTIVITIES

FHWA was well positioned to rapidly respond to the effects of Hurricane Katrina. We have permanent Division Offices in each State, and have developed both first hand knowledge of the States and strong professional and personal relationships with State and local highway officials. The mutual trust and confidence that preexisted Hurricane Katrina provided an excellent foundation for an effective plan and team effort to execute a timely highway response to the hurricane disaster. Our Division Offices provided advice to State and local jurisdictions concerning Emergency Relief program eligibility and engineering and contracting issues, and shared lessons learned from prior emergency situations.

RESPONSE IMMEDIATELY AFTER HURRICANES

As soon as we could re-enter the affected areas, FHWA deployed personnel, including employees from outside the affected States, to work along side State highway and local officials to help assess the damage and to help facilitate response and recovery efforts. In response to Hurricane Katrina, FHWA deployed 104 employees from our Headquarters and 23 field offices to Alabama, Florida, Georgia, Louisiana, and Mississippi to support relief activities.

I must express my admiration for the State and local road crews, many of whom suffered great personal losses along with their community neighbors. Mississippi and Louisiana responded exceptionally well in getting debris removal underway. Road crews began clearing debris—including downed trees and power lines from highways and bridges as soon as it was safe to do so after the storm. Consequently, with the exception of areas that were flooded, the States opened their essential Federal-aid highways for responders in less than a day, where re-entry was warranted.

FHWA employees worked shoulder to shoulder with our State and local counterparts to rapidly assess the situation and to shape strategies that would provide the most efficient response. We provided ready access to past lessons learned and helped Mississippi and Louisiana to work with Florida experts in addressing the bridge damage along I-10 and Highway 90, since Florida had experienced similar challenges following Hurricane Ivan last year. FHWA-provided information was used to support the flow of relief goods and services into the Gulf Coast region. This information was shared throughout all levels of government and with industry organizations, such as the American Trucking Associations. For example, FHWA posted State proclamations and weight permit and waiver information on our Web site.

Just after the hurricanes, our Division Offices in the impacted areas conducted refresher training on our Emergency Relief program for joint FHWA and State damage assessment teams. For example, the Louisiana Division Office met with the Louisiana Department of Transportation and Development leadership and the team members and explained the Emergency Relief Program. The same type of training was held for the local jurisdictions of Jefferson and Orleans parishes. This training increased the efficiency of the teams to make Emergency Relief program qualification decisions.

The Emergency Relief program provides reimbursement to States for expenses related to highway infrastructure damage associated with natural disasters and other emergency situations, such as Hurricane Katrina. Examples of the type of work eligible for Emergency Relief program reimbursement include repairing pavements, shoulders, slopes, embankments, guard rails, signs, traffic control devices, and bridges, and removing debris from the highway rights-of-way. Reimbursement under the Emergency Relief program is for the repair and restoration of highway facilities to pre-disaster conditions. However, Emergency Relief program reimbursement is not for new construction to increase capacity, correct non-disaster related deficiencies, or otherwise improve highway facilities.

FHWA has made down payments to the States of Louisiana and Mississippi for emergency relief. We provided Louisiana with \$5 million of “quick release” Emergency Relief funds for the I-10 Twin Span Bridge, which connects New Orleans and Slidell with the understanding that more funds to support the repair of the bridge and damage to other Federal-aid highways and bridges would be forthcoming. We also provided Mississippi with \$5 million in “quick release” Emergency Relief to reimburse the State for repairs to US 90, I-10, and other federally funded roads and bridges.

In addition to the immediate infusion of funds, FHWA has expedited environmental reviews to ensure that we can get work underway as quickly as possible, while still being good stewards of the environment. In Headquarters, we coordinated with the Council on Environmental Quality and other Federal agencies to use existing expedited procedures to streamline the environmental analysis process for the States. For example, we worked with affected Federal and State agencies to approve the preparation of an expedited Environmental Assessment, with limited deviations from FHWA’s standard procedures, for the US 90 bridge replacement and associated approach roadwork in the area of Biloxi Bay and Ocean Springs. Furthermore, our employees in the field have used rapid-response coordination techniques to get critical environmental information immediately by phone or electronic mail.

#### RECOVERY

FHWA also has been working actively to support long-term recovery efforts across the region. Every day we are making more progress in repairing the transportation systems destroyed by Hurricane Katrina. Our primary goal is to help restore the stability and quality of life to the people of the Gulf Coast as quickly as possible. Over the past few weeks we have made remarkable strides, and we will continue to build on that success to ensure that the region’s transportation network serves as an engine of its economic recovery.

We worked with the States to provide appropriate expedited procedures to get contractors underway with repairs. Incentives have been employed effectively to ensure the timeliest possible restoration of lost essential service. For example, Mississippi awarded a \$5.2 million contract to repair one of the highest priority roads



in the region the I-10 bridge at Pascagoula and included not only an incentive if work is completed in less than 31 days, but also a corresponding penalty for finishing late. I am pleased to report this bridge reopened on October 1 more than a week ahead of the contract completion date. Louisiana is using a similar technique to restore initial service across the I-10 Bridge at Slidell. We strongly support these "incentivized" contracts, and we are out in the field working closely with the States to exercise all appropriate options and tools available during this rebuilding effort.

The long-term restoration of roadways is considered permanent repair work under the Emergency Relief program. Generally, permanent repair and reconstruction work, not accomplished as emergency repairs, must be done by a competitive bid contract method unless the State demonstrates some other method is cost effective. This work can be expedited using innovative contracting procedures available under the Federal-aid Program such as the design-build contracting method.

In addition to the "quick release" Emergency Relief funds, all affected States may use up to \$100 million per State per event for Federal-aid highway roads and bridges damaged as a result of the hurricanes. When an event of the magnitude of Hurricane Katrina occurs, the repair cost can far exceed available Emergency Relief funding. However, repairs can still get underway with other Federal-aid or State funds.

We will continue to work with State and local governments to identify long-term highway recovery needs. We are engaged in interagency coordination with the US Army Corps of Engineers to ensure that infrastructure recovery is coordinated and synchronized. We are leading coordination among other agencies to ensure that up-to-date engineering design criteria are provided and environmental requirements are accomplished in ways that will not impede the rapid recovery of lost or damaged infrastructure.

A number of longer-term projects have been identified in the impacted States. The following is a brief description of such projects.

*Louisiana:* Hurricane Katrina severely damaged the I-10 Twin Spans over Lake Pontchartrain in New Orleans. A \$31 million "incentivized" emergency repair contract was let to temporarily restore two-way, single-span access to New Orleans by October 30 and access across both spans by January 18, 2006. Louisiana is considering a replacement bridge that would be constructed to current design standards and criteria, and we will work with them on those efforts. In addition to the bridge, many sections of I-10 were flooded due to the levee breaks. The Lake Pontchartrain Causeway and LA 1 and LA 23 also sustained some damage.

*Mississippi:* Emergency repair projects are currently underway to restore sections of US-90 from Pass Christian to Biloxi-Ocean Springs. A series of emergency repair projects are under contract (via force account) to restore US-90 to 2 lanes from Pass Christian to Biloxi-Ocean Springs by December 9th. Storm surge heavily damaged approximately 30 miles of US 90 roadway between Bay St. Louis and Biloxi. Additionally, two US 90 bridges—the Bay St. Louis bridge—and Biloxi-Ocean Springs bridge collapsed during Hurricane Katrina. Design-build contracts will be utilized to replace these bridges.

*Alabama:* Mobile and Baldwin Counties suffered the majority of the damage from Hurricane Katrina in Alabama. The Cochrane-Africatown Bridge over the Mobile River at Mobile was damaged by an oil rig that floated into the structure during the storm. Currently, the four-lane bridge is open only to one lane in each direction. A contract will be let in a couple of weeks to repair the bridge so that it may be opened to unrestricted traffic.

Due to damage sustained during Hurricane Katrina, five spans of the east bound on ramp from US-90 to I-10 eastbound must be replaced. Currently, the ramp is closed to traffic. Alabama is preparing plans to replace the five damaged spans.

*Florida:* US 98 on Okaloosa Island sustained substantial damage during Hurricane Katrina. Many traffic signs and signals were damaged in the Miami area. Additionally, debris removal was needed throughout the affected parts of Florida.

#### FUTURE PREVENTATIVE ACTIONS

The Bush Administration recognizes that more will have to be done to restore the Gulf Coast. I-10, US 90, and other important local roads are the economic lifeline of the hurricane-damaged region and play a central role in the economy of the entire Gulf Coast region. FHWA is bringing all its resources to bear to ensure that this region can get moving again. Projects that will be the foundation for a long-term rebuilding effort will begin soon.

We have begun a review of existing bridges that might be impacted by storm surge conditions in the future. Before we can identify suitable retrofits for existing bridges of the types damaged during recent hurricanes, we must improve our under-

standing of, and ability to quantify, the lateral/transverse and uplift forces that result from floods and storm surges. Accordingly, we have initiated research at the Turner-Fairbank Highway Research Center to aid our understanding in this area. With respect to the design of new bridges, FHWA has developed a policy that defines a flood frequency approach for the hydraulic analysis and design of coastal bridges. We also are reviewing the problem of loose barges impacting bridges during storm conditions.

Contraflow is an emerging traffic operations area that requires close coordination of all levels government. We recognize the challenges of evacuation and contraflow and the need for more attention to these areas in the future. As we did after Hurricane Ivan in 2004, we will analyze the events of Hurricane Katrina for lessons learned that can be applied to future situations. We also will continue to work with other Federal agencies to determine where transportation assets and systems can continue to contribute to evacuation planning and execution. FHWA will assist the Office of the Secretary of Transportation and the Department of Homeland Security in developing the Catastrophic Hurricane Evacuation Plans Report to Congress as mandated in SAFETEA-LU.

#### STEWARDSHIP AND OVERSIGHT

While quick response in getting funding and support to the Gulf Coast region is important, we are also cognizant of the importance of financial accountability and stewardship. As the recovery work continues, I want to assure you that I am very mindful of the responsibility we have as stewards of these critical Federal resources. FHWA has taken steps to track all transactions related to the Hurricane Katrina recovery efforts. We will ensure that funds are spent wisely and judiciously, and that projects comply with the requirements of our Emergency Relief program. American taxpayers deserve to know that each and every dollar dedicated to this tremendous effort is fully justified and properly accounted for every step of the way.

#### CONCLUSION

I believe that we have made significant progress thus far and are on our way to ensuring that the Gulf Coast region has a transportation system that will meet its long-term needs. We will continue to work with our State and Federal partners to ensure that highway recovery efforts are completed quickly and in a fiscally responsible manner.

Mr. Chairman, members, thank you for this opportunity to testify. I will be pleased to answer any questions you may have.

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#### RESPONSES BY RICHARD CAPKA TO ADDITIONAL QUESTIONS FROM SENATOR THUNE

*Question 1.* Seeing that road infrastructure is critical to the Gulf Coast's recovery, what is the Administration's position regarding the use of Highway Trust Fund dollars above and beyond the \$100 million annually set aside in SAFETEA-LU to cover Emergency Relief costs?

Response. The Emergency Relief program has a permanent authorization of \$100 million per year from the Highway Trust Fund. The Safe, Accountable, Flexible, Efficient Transportation Equity Act for the 21st Century—A Legacy for Users (SAFETEA-LU) (Pub. L. 109-59) amended Emergency Relief program to authorize an additional appropriation from the General Fund in years where the Emergency Relief needs exceeded \$100 million. SAFETEA-LU authorized such sums as may be necessary from the General Fund to address the "backlog."

On October 28, 2005, the Administration released a supplemental appropriations request, which included a request for \$2.325 billion from the General Fund for the Emergency Relief program for expenses related to Hurricane Katrina and other natural disasters. FHWA continues to work with the affected States to refine the cost estimates for the repair or replacement of damage to roads and bridges eligible under the Emergency Relief program.

Under the "quick release" procedures for the Emergency Relief program, FHWA has provided \$5 million each to Louisiana and Mississippi as a down payment on their Emergency Relief funding. In the absence of other Emergency Relief funds, a State can fund projects eligible under the Emergency Relief program in a number of ways. A State may use unobligated Emergency Relief funds from other Emergency Relief-eligible events in the State. A State may use other apportioned Federal-aid funds or State funds to complete emergency or permanent repairs. Additionally, a State may use Advance Construction. Any funds used for work eligible under the Emergency Relief program will be reimbursed by the Emergency Relief program

funds when they become available. Currently, States are not holding up essential project work because of a lack of funding.

*Question 2.* What is FHWA's estimate concerning the time it will take to restore all damaged roadways and bridges to pre-Hurricane condition?

Response. It is difficult to estimate the time it will take to restore all damaged roadways and bridges to pre-Katrina condition. Affected Federal-aid highways currently are open to essential traffic service. However, completing the permanent repairs of these roads will take some time. FHWA is working to ensure that appropriate design criteria are being used for the long-term restoration of Federal-aid highway facilities. FHWA also is working to ensure that interagency coordination occurs so that these long-term projects can be completed as expeditiously as possible.

*Question 3.* In your testimony Administrator Capka, you touched upon the damaged caused by massive casino barges that dislodged from their moorings during the Hurricane. How many other bridges were damaged (and to what extent) as a result of foreign structure collisions?

Response. Foreign structure collisions damaged two bridges in Mississippi and one in Alabama during Hurricane Katrina, and one bridge was damaged in Louisiana during Hurricane Rita. The casino barges that dislodged from their moorings during Hurricane Rita damaged U.S. 90 in Mississippi, but did not damage any bridges.

*Question 4.* As the author of S. 1761, the "Gulf Coast Recovery Act" I would appreciate knowing more about how the Department of Transportation (as well as your private sector partners) are impacted by the threat of litigation in post-disaster clean-up efforts.

Response. As you know, the roadways and bridges in question are owned by the State and local governments. FHWA provides reimbursement through the Emergency Relief program to States for work on roadways and bridges on a Federal-aid highway that are damaged as a direct result of a natural disaster or catastrophic failure from an external cause. The States contract with private entities for the repair work on a federally owned facility. Even if the FHWA did enter into contracts with private entities for the repair work, any FHWA liability would be governed by the Federal Tort Claims Act. Similar to the Federal Tort Claims Act (under which the Federal Government waived its sovereign immunity, but retained some exceptions to this waiver), States generally have some exceptions to their waivers of sovereign immunity to limit their liability exposure. FHWA is not aware of any delays in the restoration of transportation services in the Gulf Coast region due to litigation threats to State or local governments or their contractors.

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RESPONSES BY RICHARD CAPKA TO ADDITIONAL QUESTIONS FROM SENATOR OBAMA

*Question 1.* Senator Coburn and I introduced a bill recently to appoint a chief financial officer in the Executive Office of the President to oversee hurricane reconstruction efforts. The bill is meant to ensure that there is oversight on the front end before money is spent, instead of after the money has gone out the door.

Already, we've seen some disturbing examples of poorly spent money. A few weeks ago, Senator Coburn and I highlighted a \$200 million contract that FEMA signed with Carnival Cruise Lines to house evacuees and rescue workers. Under this contract, taxpayers are paying \$2,500 a week per person housed on the ship—four times the cost of a 7-day Caribbean cruise, which includes entertainment.

Please describe how your agency is ensuring that reconstruction funds are being well spent.

Response. Secretary Mineta has emphasized that sound fiscal management is a top priority. The Chief Financial Officer for the Department has issued guidance to the Operating Administrations detailing the procedures for the tracking of hurricane funding to ensure that sufficient safeguards are in place to prevent waste, fraud, and the misuse of Federal funds. FHWA is adhering to these procedures.

Under the Emergency Relief program, States must apply for reimbursement for eligible expenses. FHWA reviews these applications to ensure the Emergency Relief funding is spent on eligible work. Additionally, Emergency Relief funding is not disbursed until FHWA has received a legitimate bill.

*Question 2.* Are there instances when multiple agencies are involved in contracting and procurement decisions? When that happens, who coordinates oversight over these financial decisions?

Response. For Federal-aid highway program, the facility owner, the State, contracts the work. The FHWA coordinates the Federal oversight. For non Federal-aid

emergency repairs, FEMA may participate in repair costs in accordance with the provisions established in the Stafford Act. Funding for FEMA-eligible repairs (through FEMA's Public Assistance program) and funding for FHWA-eligible repairs (through FHWA's Emergency Relief program) are administered separately by each agency. There cannot be any duplication of reimbursement from both FEMA and FHWA for damages at the same location. To avoid duplication, FHWA and FEMA staff coordinate and communicate when there is a concern about the status of a highway.

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RESPONSES BY RICHARD CAPKA TO ADDITIONAL QUESTIONS FROM SENATOR JEFFORDS

*Question 1.* Mr. Capka, Louisiana officials estimated last month that the cost of immediate repairs for their State's transportation system would exceed eleven billion dollars. Still others have estimated the damage to the region's transportation network at between two and a half and three billion dollars. Can you give us your best estimate at the cost of the damage to the Gulf region?

Response. FHWA estimates that the total cost of Hurricane Katrina-related repairs to Federal-aid highways in the Gulf Coast region will be \$1.725 billion. This estimate represents a preliminary figure based on damage assessments conducted by FHWA and state transportation agency personnel in Alabama, Florida, Louisiana, and Mississippi. FHWA and State personnel continue to work closely on damage assessments. Once all damage assessments have been completed and reviewed by FHWA, a formal request for an allocation of ER funds will be processed.

*Question 2.* Mr. Capka, in your testimony you mention that your agency has started research on the effect of storm surge on bridge infrastructure and has begun a review of existing bridges that may be impacted by storm surge conditions in the future. When do you plan on completing this review, and what is your agency doing to ensure that storm-damaged bridges in the gulf region are rebuilt to avoid, to the maximum extent possible, similar damage the next time a major storm hits the region?

Response. The research we are doing is two-fold. First, we must improve our understanding of, and ability to quantify, the lateral/transverse and uplift forces that result from floods and storm surges. With this greater understanding, we must assess potential retrofits.

On October 6, 2005, FHWA completed an internal literature search to quantify the magnitude of wave forces, which can be very destructive when waves slam against a structure while the buoyancy and vertical impact forces are tending to lift a bridge deck off of the pier. Most of the research in this area has been done by the offshore drilling industry.

Currently, FHWA is negotiating with researchers at the University of South Alabama "Coastal Transportation Engineering Research Center" to (1) expand on the FHWA internal literature search and demonstrate how the forces might be combined to evaluate the feasibility of various restraining devices that could be used to hold bridge decks in place; (2) conduct preliminary wave tank tests with a model of a bridge deck to determine if the technology borrowed from other sources can reasonably be applied to the bridge problem; and (3) conduct preliminary geotechnical analyses using existing numerical modeling techniques to determine if securing the bridge decks against these forces might be jeopardizing the stability of the foundation. We expect this work to begin around November 15, 2005, and to be completed around May 15, 2006.

On October 1, 2005, FHWA began a year long laboratory study at the TFHRC Hydraulic Lab of Lift and Drag Forces on inundated bridges under riverine conditions. The study will also analyze bridge superstructure response to the impact (slamming) forces extracted from wave force experiments performed by other Laboratories through use of high tech force measurement techniques developed at the TFHRC lab.

The most effective way to avoid damages like those that occurred to bridges along the Gulf Coast is to raise the grade of the bridges so that the decks are above the storm surge elevation. The preliminary consideration is to design new bridges to clear the storm surge elevation for the storm of record. Raising the grade of existing bridges is a very costly retrofit for all of our coastal bridges. That is why we are attempting to quantify the forces to consider other retrofit options.

With respect to FHWA's review of existing bridges, we completed a query of the National Bridge Inventory database to identify structures within 5 to 15 nautical miles of a coast and of a design that is similar to those damaged in recent hurricanes. The results of these queries can be considered a first approximation at identifying bridges that are vulnerable to storm surge and wave damage. Further refine-

ment of the identification of vulnerable bridges will require agreement upon reasonable assessment criteria, additional data that is available from the bridge owning agencies, and cooperation of the bridge owners. FHWA will work to address these issues over the next three months.

With respect to the design of new bridges, FHWA has developed a draft policy that defines a flood frequency approach for the hydraulic analysis and design of coastal bridges. Currently, several States are reviewing this draft policy.

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RESPONSES BY RICHARD CAPKA TO ADDITIONAL QUESTIONS  
FROM SENATOR LAUTENBERG

*Question 1.* With Davis-Bacon protections suspended for construction contracts in hurricane-impacted states, how will this impact your agency's ability to detect fraud, discrimination, and the use of kickbacks?

Response. While the September 8, 2005 Presidential proclamation suspended the Davis-Bacon Act in certain counties, it did not suspend many other Federal labor policies such as the Copeland Anti-Kickback Act, the Fair Labor Standards Act (FLSA), the Contract Work Hours and Safety Standards Act (CWHSSA) and various US Department of Labor and FHWA Equal Employment Opportunity and non-discrimination provisions.

The FLSA provides standards for minimum wage, overtime pay, recordkeeping, and child labor. It requires that the records include certain identifying information about the employee and data about the hours worked and the wages earned.

The State DOTs and FHWA will provide oversight to prevent contract fraud by using accepted procurement procedures. All contracts for permanent repairs will be competitively bid. Thus, the contractor's payment will be based on the actual work performed with inspection, oversight, measurement and payment provided by the State DOT. The payment will be based on competitively bid unit prices.

Emergency repair work, by definition, is necessary to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities. By FHWA policy, emergency repairs can be done using negotiated contract or agency force account work as determined by the State DOT as best suited to protect the public health and safety. Record keeping and oversight requirements still apply regardless of whether there is a requirement to submit certified payrolls.

Normal State DOT and FHWA inspection and auditing procedures will apply to all contracts funded by the FHWA.

*Question 2.* Will the Davis-Bacon suspension affect projects not related to the disaster? How many contracts will be affected by the proclamation?

Response. Yes, the suspension is applicable to all Federal-aid projects executed on or after September 8, 2005, and will remain in force until November 8, 2005. FHWA does not have information on the number of contracts affected by the proclamation.

*Question 3.* What lessons has your agency learned after these recent disasters about the shortcomings of the Interstate system when it comes to evacuating masses of people?

Response. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), recently enacted, requires the Secretary of Transportation and the Secretary of Homeland Security, in coordination with Gulf Coast and contiguous States, to review and assess jointly Federal and State evacuation plans for catastrophic hurricanes affecting the Gulf Coast region. FHWA will review the transportation component of these plans and will make recommendations as appropriate. A report on the finding of this study is due to Congress by October 1, 2006. The report will address several issues impacting evacuations occasioned by hurricanes, including roadway infrastructure integrity and capacity, as well as operational factors. In general, evacuation planning and execution represent extraordinarily complex tasks and the evaluation of associated State and local plans will require substantial review and analysis.

*Question 4.* During the evacuation of Houston, how many people suffered injuries or died while evacuating or while sitting in traffic waiting to evacuate?

Response. The number of fatal and injury-related highway crashes that occurred during the Hurricane Rita evacuation is unknown. Crash data is not coded to capture this type of event. Given the slower speeds and high usage of the highway system, plus several days of restricted or prohibited travel, one would expect the overall number of fatal and serious injury crashes in the Houston area to decrease during the evacuation. The most significant crash occurred on September 23, 2005, when a bus carrying nursing home residents caught fire and exploded on I-45, kill-

ing 23 of the 37 persons on board. The National Transportation Safety Board is investigating this crash.



**List of Government Waivers and Dispensations Authorized for Hurricane Katrina Response**

The following is a list of waivers and dispensations authorized by government agencies in response to Hurricane Katrina as of September 29, 2005.

**U.S. Coast Guard, Department of Homeland Security** - Coast Guard has granted an exemption of the Outer Continental Shelf Lands Act until 31 October 2005 to increase the percentage of foreign workers on offshore oil rigs damaged by Hurricane Katrina. We do this on a case-by-case basis, normally allowing no more than 25% of the crew as foreign workers. These foreign workers will carry Merchant Mariner Documents. The waivers will speed repairs to the oil and gas industry. Industry has told us of a shortage of US citizens with the right skills. This shortage is now exacerbated by the hurricane since many of the crew lived in the affected areas. We have received and approved three such requests addressing at least 200 workers on over 10 vessels. We have processed each of the three requests in less than 24 hours.

Due to the massive response to oil and hazardous materials spills, many commercial oil spill response assets have been called upon to assist. Consequently, oil tankers intending to offload cargoes offshore of Galveston have reported that their normally contracted oil spill response contractors are not readily available, placing them in potential non-compliance with the Oil Pollution Act of 1990, which requires that such capability be available within established response timeframes. Shippers are reportedly reluctant to transfer much needed oil due to liability concerns should a spill occur, and this reluctance could potentially disrupt resumption of oil supplies to Texas refineries. To assist the industry in the resumption of commerce, the Commandant of the Coast Guard has authorized Captains of the Port (COTPS) to temporarily exempt specific performance requirements contained in federal regulations (Title 33, CFR). This authority will remain in effect until 15 October 2005. The Coast Guard will pre-stage spill response equipment in the Houston/Galveston to supplement industry capability until the temporary shortage is resolved.

**Customs and Border Protection (CBP), Department of Homeland Security** - The Commissioner of CBP has executed his authorities under 19 U.S.C. 1318 and 19 U.S.C. 1322. Under Section 1318, the Commissioner has granted CBP Port Directors and Directors of Field Operations the authority to close temporarily any Customs office or port of entry or take any other lesser action that may be necessary. In addition, the waiver will allow for the importation of merchandise for humanitarian purposes without entry and without payment of duty, taxes, or fees.

The Jones Act waiver (limited to petroleum products only) issued for Katrina and originally expiring on 9/17 has been extended by a similar waiver issued in the aftermath of Hurricane Rita. This second waiver expires 10/24.

The Commissioner, CBP, has also amended CBP Directive 4510-016A, Customs Officers Responding to State Crimes, to permit arrests under state law by a CBP Officer, Border Patrol Agent, or other CBP law enforcement officer who is assisting, in an official capacity, the Hurricane Katrina relief efforts in Louisiana, Mississippi, Alabama, Florida, or Texas, and who is properly authorized to carry out arrests under state law or federal designation.

**Immigration and Customs Enforcement, Department of Homeland Security** - DHS announced September 6th it will not sanction employers for hiring victims of Hurricane Katrina who, at this time, are unable to provide I-9 documentation normally required under Section 274A of the Immigration and Nationality Act. DHS will not bring sanction actions against employers for hiring individuals evacuated or displaced as a result of Hurricane Katrina otherwise eligible for employment but who currently lack personal documents.

Therefore, the Department of Homeland Security will refrain from initiating employer sanction enforcement actions for the next 45 days for civil violations, under Section 274A of the Immigration and Nationality Act, with regard to individuals who are currently unable to provide identity and eligibility documents as a result of the hurricane. Employers will still need to complete the Employment Eligibility Verification (I-9) Form as much as possible but

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should note at this time that the documentation normally required is not available due to the events involving Hurricane Katrina. At the end of 45 days, the Department of Homeland Security will review this policy and make further recommendations.

**Transportation Security Administration, Department of Homeland Security** - To support the Hurricane Katrina disaster relief efforts, the TSA is temporarily exempting States from the prohibition in 49 CFR 1572.13(b) (1) against issuing new Hazardous Materials Endorsements (HMEs) for truck drivers' Commercial Drivers Licenses (CDLs) prior to receiving a "Determination of No Security Threat Assessment." This exemption applies only for the issuance of new HMEs, and is valid only through December 1, 2005. HMEs issued in accordance with the provisions of this exemption must be to support Katrina disaster relief efforts. The request for the driver to transport hazardous materials must originate from a state or federal entity. States are still required to provide each applicant driver's name, SSN, DOB and CDL number to TSA, and may not issue an HME until TSA conducts a name-based check based on that information. Additionally, the State must collect the required application and fingerprint information prior to issuing the HME.

#### **Department of Agriculture (USDA)**

**Forest Service** - Waived campground fees for Hurricane Katrina survivors.

On 9/3, USDA Forest Service announced temporarily rescinding the fee requirement for campgrounds and the 14-day stay limit for camping on some National Forest System lands in the Southern Region. The normal fee range is \$4.00 to \$25.00 depending on the location.

The forests offering free camping include the Kisatchie National Forest in Louisiana, the National Forests of Alabama, the Ozark-St. Francis National Forest in Arkansas, the Ouachita National Forest in Arkansas and Oklahoma and the National Forests and Grasslands of Texas. In all, 106 campgrounds are open without charge to victims of Hurricane Katrina as they transition through these first weeks of the disaster.

Eligibility requirements associated with the rural housing program are being waived to expedite the relocation process by USDA Rural Development. 30,000 housing units across the country that the USDA Rural Development program has made available to displaced residents.

50,000 low-income residents in the affected areas who have mortgages through USDA are being notified of a 90-day minimum moratorium on payments to reduce the financial hardship.

USDA is providing a 90-day moratorium on debt collection on electric, water and community facilities financed by USDA in the affected states. USDA has been in contact with over 50 Cooperatives in the three states to gather information on outages and recovery efforts.

Secretary Mike Johanns announced that USDA is making more than \$170 million in emergency assistance available to agricultural producers suffering from Hurricane Katrina. This includes more than \$20 million in Emergency Conservation Program (ECP) funds to help producers repair damage to their lands. The ECP funding is available for certain counties in Alabama, Louisiana, Mississippi and Tennessee. Also, a total of \$152 million in Farm Service Agency (FSA's) Emergency Loan Program is available to eligible producers who have suffered at least a 30 percent reduction in crop production or have sustained physical losses to buildings, chattel or livestock.

Schools are being permitted to provide free meals to children who have fled areas devastated by the hurricane.

USDA has authorized and continues to encourage states to pre-load electronic food benefit (EBT) cards with \$50 worth of assistance, which will enable displaced residents to immediately purchase food even before their application has been processed to receive complete benefits. These cards can then be distributed to displaced residents as they move from shelters to temporary housing.

#### **Department of Commerce**

Due to increased debris in the Gulf of Mexico from hurricane Katrina, NOAA issued a 30-day temporary rule on September 23, 2005, to allow shrimpers to catch shrimp using limited tow times instead of using the required turtle excluder device (TED). TEDs are used to limit capture of, and harm to, endangered sea turtles. When a



TED is clogged with debris, it can no longer effectively catch shrimp or exclude turtles. If conditions do not improve, this rule can be extended.

**Department of Defense - US Army Corp of Engineers**

The USACE Mobile District is seeking a one time waiver to use pipeline dredge in Mobile Bay with thin layer disposal. All indications are that this will happen but need to do an expedited public notice because of change in disposal mode. New Orleans is not an issue, yet.

**Department of Education**

Federal Student Aid Programs - Modified rules for providing Federal student aid to transfer students who transfer from a postsecondary educational institution that is not operating due to the hurricane to another institution.

Extended application filing dates for Federal student aid for students impacted by the hurricane.

Extended various reporting dates required of postsecondary educational institutions.

Directed student loan holders to grant an automatic three-month forbearance to any borrower whose address is in a FEMA declared disaster county.

DoED is considering all requests from States and based on the State's need, the specific waiver is granted. These are not blanket waivers for each State. The Assistant Secretary for the Office of Elementary and Secondary Education, Henry Johnson is working with the affected States to determine needs.

On September 12, the U.S. Department of Education granted two waivers to the Mississippi Department of Education that are related to funds that Mississippi receives under the Elementary and Secondary Education Act of 1965 (ESEA).

- One waiver granted an immediate 12-month extension of the time within which Mississippi has to obligate ESEA funds that the State has already received and had an original obligation deadline of September 30, 2005. This extension will allow the State and its districts an extra year to obligate any of those funds that may not yet have been spent.
- The other waiver relates to the maintenance-of-effort requirement under covered ESEA programs for affected school districts. While the effects of Hurricane Katrina on these effort requirements will not be experienced until the 2007-2008 school year, the Department has granted this waiver request and pledged to work with State and local staff to obtain additional information on the names of affected school districts and other relevant fiscal data that will help complete that portion of the waiver process as the actual deadlines occur.

**Department of Health And Human Services** - Waiver of the following requirements under titles XVIII, XIX, XXI of Section 1135 of the Social Security Act or regulations there-under for the affected areas under the declarations of emergency for Florida, Alabama, Louisiana, and Mississippi, and to the extent necessary to ensure sufficient health care items and services for persons enrolled in Medicare, Medicaid, and SCHIP programs and to insure health care providers that furnish such items and services in good faith, but are unable to comply with requirements due to Katrina, can be reimbursed for services:

- Certain conditions of participation, certification requirements, program participation, etc of providers, facilities, etc
- Requirement that physicians and other health care providers hold licenses in the State in which they provide services, if they have a license in another state
- Sanctions under section 1867 (The Emergency Medical Treatment and Labor Act, EMTALA) for the redirection of an individual to another location to receive medical screening examination pursuant to state emergency preparedness plan or transfer of patient who has not been stabilized if the redirection arises out of a Hurricane Katrina related emergency
- Limitations on payments under Medicare to permit enrollees to use out-of-network providers
- Sanctions and penalties arising from noncompliance with certain HIPAA privacy regulations

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Today, Mark B. McClellan, M.D., Ph.D., Administrator of the Centers for Medicare & Medicaid Services (CMS), announced that CMS has adopted a series of emergency policy changes to accommodate the needs of thousands of displaced Medicaid and State Children's Health Insurance Program (SCHIP) beneficiaries who have fled Hurricane Katrina and need urgent medical attention in their new host states.

As announced by President Bush, special evacuee status will be granted to all those who fled states because of Hurricane Katrina.

Accordingly, CMS is working with affected states to develop a new Medicaid and SCHIP application template, through which states may be granted emergency section 1115 demonstrations to provide temporary eligibility for all eligibility groups. Using this new program, evacuees displaced because of the storm will be able to quickly enroll in Medicaid or the State Children's Health Insurance Program (SCHIP) in the state to which they have been evacuated.

The Administration is working with Congress to provide financial support to states that provide Medicaid and SCHIP coverage to evacuees who are currently residing in their states. Consequently, CMS is allowing states to count the full expected cost of these temporary programs in their financial statements to determine federal payments.

The following changes to Medicaid and SCHIP will be available to states through the special Section 1115 demonstration initiative:

- States may waive the normal documentation requirements for verifying an evacuee's Medicaid or SCHIP status in his/her home state or any information relating to household income or employment;
- The host state may provide temporary eligibility to applicants who are already enrollees in their home state. During the period of eligibility, the host state is required to verify circumstances of eligibility to the greatest extent possible;
- Evacuees may apply using a simplified application in the host state;
- Host states, at a minimum, will provide their own Medicaid and SCHIP benefit packages to the evacuees; and
- Host states must extend the expedited application process to evacuees who may be newly eligible because of new economic circumstances created by the hurricane (i.e., loss of job and income that may have made them ineligible prior to the storm).
- CMS has assigned staff to work with all states who are hosting evacuees to provide speedy access to Medicaid and SCHIP benefits to those in need.

HHS Grants Medical Care Payments for Evacuees in Mississippi (22 September 05)

- The agreement with Mississippi would enable evacuees who have little ability to pay for care to get coverage through Medicaid or SCHIP for up to five months, even if they do not have the usual documentation. This emergency Section 1115 waiver was developed by HHD to ensure that evacuees in need of medical care have immediate access to it.
- Under the waiver, needed medical services will be delivered through Mississippi programs to evacuees who are children up to age 19 and their parents, pregnant women, individuals with disabilities, low-income Medicare beneficiaries and those who need long-term care and meet certain income requirements. Evacuees will be asked to complete a simplified application form declaring their income and assets, if any. The program will last through Jan. 31, 2006.
- This waiver also supports innovative ways to provide needed care that differ from standard approaches in Medicaid, including expanded community-based health care centers, mobile units for providing basic care at convenient locations for evacuees and new referral networks, and care provided by health professionals who may not participate in the Medicaid program.

**Department of the Interior** - National Park Service has extended its campground fee and length of stay waivers for Katrina and Rita evacuees, recovery and relief workers, and friends or families of hurricane victims in the area to provide support or recovery assistance.

The Assistant Secretary-Policy Management and Budget has issued a Determinations and Findings providing authorization and guidance on increasing emergency purchase authority to charge card holders and warranted contracting officers which is available at <http://www.doi.gov/pam/newreleases.html>.

Fish and Wildlife Service has placed a notice on their [grants web page](#) notifying grantees that grant recipients and/or their projects may have been impacted by the hurricanes. The FWS will work with each grant recipient on a case-by-case basis to determine how best to address those impacts. Additionally, recipients were authorities to use equipment funds by the grant to help in the recovery efforts.

**Department of Labor** - The Employee Benefits Security Administration (EBSA), in conjunction with the IRS has extended a number of deadlines related to health plan coverage under HIPPA and COBRA. The extension will help workers maintain eligibility for continuation of health benefits, and avoid having their benefits cancelled for missed premium payments under COBRA. The extension will also help workers avoid being subject to preexisting condition exclusions if they are in the process of changing insurance coverage.

EBSA waived the 10% early withdrawal penalty for premature distributions from IRAs, 401(k)s and other qualified retirement plans for people impacted by Hurricane Katrina.

EBSA announced two extensions of the deadline for filing Form 5500 and Form 5500 EZ annual report/returns due to property damage and destruction from Hurricane Katrina in portions of Louisiana, Mississippi, Alabama, and Florida.

The Office of Labor Management Standards has extended the filing deadlines for LM-2, LM-3 and LM-4 reports for labor organizations whose principal offices are located in the affected areas, or whose financial records necessary for preparing the forms are located in those areas.

The Office of Federal Contractor Compliance Programs has temporarily waived the written affirmative action requirements of Executive Order 1126; Section 503 of the Rehabilitation Act; and Section 4212 of the Vietnam Era Veterans' Readjustment Assistance Act. This waiver exempts only temporary federal contractors from a very narrow but intensive paperwork requirement.

DOL provided immediate blanket waiver authority to Louisiana, Mississippi and Alabama so that all Workforce Investment Act (WIA) waivers allowable under current authority could be utilized immediately

- Waiver to allow the greatest funding flexibility at the local level to increase training options for evacuees (known as "work-flex" authority).
- Waiver of the administrative cost limitation.
- Waiver to permit 100 percent transfer between the WIA Adult and WIA Dislocated Worker funding streams.
- Waiver that allows local area funds to be used for incumbent worker training.
- Waiver of the reallocation provisions so that funds can be targeted to local areas most in need.
- Waiver of the required 50 percent employer match for customized training.
- Waiver to increase the employer reimbursement for on-the-job training from the current 50 percent to 100 percent for hurricane-impacted businesses and businesses training hurricane-affected individuals.
- Waiver of performance and reporting requirements for Program Year 2005 for impacted areas.

DOL provided new waiver opportunities for states affected by the disaster, including states that are providing services to evacuees.

- Waiver to allow public service employment.
- Waiver to allow WIA funds to be used to capitalize a small business, up to \$5,000.
- Waiver to allow WIA funds to pay the wages of incumbent employees.
- Waiver to better target and focus on services most needed by youth.

The Administration has temporarily suspended Davis-Bacon prevailing wage requirements in the limited geographic area hit by Hurricane Katrina.

**Department of Transportation**

**Aviation (OST, FAA)** DOT's Office of the Secretary has issued emergency exemption authority on a temporary basis to permit foreign-flag airlines to carry passengers and freight to and from the U.S. and any foreign point in support of relief efforts (in effect until October 4, 2005), and to engage in certain "cabotage" operations to carry passengers from one U.S. city to another in support of the evacuation and relief efforts (in effect until September 19, 2005).

DOT's Office of the Secretary has issued an emergency exemption that will permit air carriers normally licensed only for private air transportation services to offer their services to the public at large, including government and private relief organizations, in order to assist in hurricane relief efforts. The exemption is in effect for 30 days, or until October 6, 2005, after which the need for continued exemption authority will be reviewed.

Federal Aviation Administration has issued interpretations of its regulations that ease flight and duty time requirements for crews to facilitate participation in relief flights, and to relax cabin safety requirements to allow the carriage of children over two years old to ride in a parent's lap, to allow more than three children in a row, etc.

Federal Aviation Administration has provided written advice to airports that public airports that provided assistance to other public airports in response to Hurricane Katrina or Rita acted in conformity with the statutory requirements for use of airport revenue. The advice explained that airport aid to sister airports when disasters strike further federal aviation purposes in helping to restore key facilities in the national air transportation system as quickly as possible, and that the airport that is providing aid now could be a beneficiary of aid from other airports in a different disaster in the future.

**Hazardous Materials (PHMSA).** Pipeline and Hazardous Materials Safety Administration has issued emergency exemptions to Florida, Alabama, Louisiana, and Mississippi authorizing them to waive all hazardous materials transportation safety regulations (except those applicable to radioactive materials) on shipments to, from, and within the Hurricane Katrina disaster areas when necessary to support the recovery and relief efforts.

**Highways (FHWA).** On a case-by-case basis, the Federal Highway Administration has waived the competitive bidding process for procurement of supplies and services on an emergency basis to facilitate debris removal, repair, and reconstruction of roads and bridges.

**Maritime (DHS/MARAD).** DHS has issued a temporary waiver of the Jones Act to allow foreign flag vessels to carry petroleum and refined petroleum products, as well as petroleum released from the Strategic Petroleum Reserve, in effect until 12:01 a.m., EDT, September 19, 2005.

**Pipelines (PHMSA).** Pipeline and Hazardous Materials Safety Administration has issued policy statement on website and through industry channels, recognizing that unusual situations may arise where pipeline operators may need to improvise with available resources or deviate from their existing process and procedures, but stressing that operators should abide with the intent of the pipeline safety regulations and document the reasons for deviations. In cases where clear choices must be made, operators are urged to take necessary precautions to protect people first, then the environment and property.

**Railroads (STB).** On September 23, 2005, the Surface Transportation Board authorized CSX railroad to use 355.1 miles of rail line of a subsidiary of Norfolk Southern railroad between Alabama and Louisiana. CSX needed this trackage because of the destruction or damage to CSX's own track by Hurricane Katrina. In a decision granted less than 24 hours after receipt of the request, the STB waived the usual delay in effective date and allowed the temporary route to be used immediately.

**Trucks (FMCSA).** Federal Motor Carrier Safety Administration has continued an extension of its regional declarations of emergency, which ease its hours-of-service rules and certain other safety requirements applicable to truck drivers, for the Eastern and Southern Service Centers to cover emergency transportation of gasoline, diesel, jet fuel, natural gas/CNG, propane and ethanol to, from or within the States of (Eastern) CT, DC, DE, MA, MD, ME, NJ, NH, NY, PA, RI, VA, VT and WV; (Southern) AL, AR, FL, GA, KY, LA, MS, NC, NM, OK, SC, TN and TX. The Western Service Center will extend its declaration for New Mexico only. These extensions cover the States identified by the Environmental Protection Agency (EPA) as continuing to have an "extreme and unusual fuel supply circumstance" and for which EPA issued fuel waivers. To match the EPA waivers, the revised FMCSA declarations will be extended through 11:59 pm on October 5. In addition, the President's emergency

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declarations ease hours-of-service and other safety regulations for emergency relief efforts to, from, and within the stricken areas, regardless of commodity.

**Transit (FTA).** The Federal Transit Administration has waived the public participation process in 49 CFR 604.11 that is required before a transit agency can provide charter service. Transit agencies must instead make a good faith effort to determine whether local private charter operators are able to provide that service and document those efforts. In addition, transit agencies should notify the American Bus Association and the United Motor Coach Association of their proposal to provide the service. There is no expiration date for this waiver.

**Cross-Cutting and Other** - The President has waived the Davis-Bacon Act, permitting lower pay rates on construction rehabilitation projects.

The DOT Senior Procurement Executive issued a Class Justification for Other than Full and Open Competition for urgent and compelling procurements in support of recovery activities for Hurricane Katrina. This document allows procurement organizations to limit competition for procurements supporting recovery or restoration efforts related to Katrina and is good for 90 days (through December 1, 2005). (FAA, with its independent Acquisition Management System, is not subject to this class justification, but is expected to take similar action.)

The DOT Senior Procurement Executive has granted special procurement authority to support the recovery effort due to Hurricane Katrina. This recovery effort has been determined to be a contingency operation, thereby enabling increases in certain procurement thresholds and other procurement flexibilities pursuant to 41 USC 428a. Contracting Officers may use the authority provided in a memorandum issued by the Senior Procurement Executive for purchases that have a clear and direct relationship to the support of this national emergency.

The Deputy CFO has extended the use of purchase card past the September 9th end of fiscal year financial system cut-off date for actions related to recovery from Katrina. This will allow continued use of purchase cards until September 30 for recovery or restoration efforts related to Katrina.

**Department of the Treasury** - The Treasury, acting through the Internal Revenue Service, granted the following relief to Katrina victims:

Taxpayers in affected areas will have until October 31, rather than September 15th, to make required tax payments, and all penalties and interest are abated. Anyone with a question regarding tax relief can call a special number for this issue at 1-866-562-5227.

Tax penalties will not be assessed when dyed fuel is used for highway vehicles in affected areas. In addition, the Internal Revenue Service will not impose a tax penalty on a failure to meet the requirements of EPA highway diesel fuel sulfur content regulations if EPA has waived those requirements.

The Securities and Exchange Commission has announced that it will provide extensions of filing deadlines and suspension of requirements to deliver documents to hurricane-affected areas.

The Securities and Exchange Commission issued an order providing emergency regulatory relief to investors, companies, and securities firms affected by Hurricane Katrina.

Treasury and the IRS are providing tax relief to hurricane victims and encouraging charitable giving during this difficult time of national disaster and recovery.

The Treasury waived certain requirements for the low-income housing credit so that displaced victims, regardless of financial status, could have access to that housing during this time of great need.

The Treasury, along with the Department of Labor and Pension Benefit Guaranty Corporation, has extended the deadline for employers in the affected areas to make minimum funding contributions to qualified retirement plans.

The Treasury is also providing special relief to allow employers to adopt leave-based donation programs under which employees could forego vacation, sick or personal leave, and in turn their employers would make cash contributions to charitable organizations involved in relief efforts.

On September 6, 2005, the IRS announced that it would expedite processing of applications for recognition of tax-exempt status for charitable organizations providing relief in affected areas.

On September 7, 2005, the IRS issued a press release waiving enforcement of secured airport status requirement for fuel stored at airports that can be utilized for search, rescue and recovery efforts.

On September 7, 2005, the IRS issued a press release announcing a public outreach effort working with the AICPA to ensure that affected taxpayers are aware of the relief provisions available to them under the tax law.

On September 8, 2005, the IRS and Treasury issued guidance providing issuers of tax exempt bonds affected by Hurricane Katrina with additional time to file certain information returns and arbitrage rebate returns.

Reminded the public that under section 139 of the Code, qualified disaster relief payments to individuals, including certain hazard mitigation payments, can be excluded from taxable income.

Issued guidance providing plan administrators information regarding a determination that individuals affected by Hurricane Katrina have incurred a hardship, thus making them eligible to receive a hardship distribution from their 401(k) plan. The guidance will also clarify that plans that do not already provide for hardships may do so if the plan is amended by the end of 2006. The guidance will not provide relief from the 10% extra tax on hardship distributions, which requires a statutory change.

The Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency federal banking agencies (the agencies) today announced the issuances of an orders granting emergency relief to bank transfer agents affected by Hurricane Katrina. The orders cover extends to national banks, state member banks, state nonmember banks, bank holding companies and bank subsidiaries. The relief applies retroactively for the period beginning August 29, 2005 through October 17, 2005.

Transfer agents maintain records related to the issuance and transfer of securities and provide operational assistance in the sale and transfer of ownership of securities. These agents also may disburse dividends and send corporate information, including proxies, to security holders of securities. The storm and its aftermath have resulted in a lack of communications, facilities, and available staff, and professional advisors that could hamper the efforts of transfer agents to access securities, records and funds, and to process securities transactions.

To address compliance issues caused by Hurricane Katrina and its aftermath, the orders conditionally exempts banks, bank holding companies and bank subsidiaries acting as transfer agents from compliance with Section 17A of the Securities Exchange Act of 1934.

These is orders, which are being issued by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency, complements an order issued by the Securities and Exchange Commission on September 15, 2005, that exempts SEC-registered nonbank transfer agents under the SEC's jurisdiction from the requirements of Section 17A of the Securities Exchange Act of 1934.

**Environmental Protection Agency (EPA) - Hurricanes Katrina and Rita Related Fuel Waiver Response**  
EPA, in conjunction with the Department of Energy, has responded quickly and decisively to address disruptions to the fuel supply that have occurred due to the damage to refinery and pipeline infrastructure in the Gulf Region by issuing emergency waivers of certain fuel standards in areas of the country affected by Hurricanes Katrina and Rita. These temporary waivers have been necessary to address an "extreme and unusual fuel supply circumstance" and to ensure that an adequate supply of fuel is available throughout the country and for emergency vehicle supply needs.

EPA and DOE are continuing to monitor the fuel supply situation, and this page will be updated in the event that any new emergency fuel waivers are required.

EPA has issued waivers for the following States; Alabama, Arizona, California, Florida, Georgia, Louisiana, Mississippi, Tennessee, Texas, Virginia, and a Nationwide fuel waiver.

In the continued effort to minimize potential fuel supply disruptions caused by Hurricane's Rita and Katrina, on September 22 EPA expanded the waiver to allow conventional gasoline (CG) to be sold and distributed in the Houston-Galveston reformulated gasoline (RFG) covered area to cover the Dallas-Fort Worth RFG area through midnight on September 30. In a related action, EPA granted a third waiver to extend the September 9 waiver to allow regulated parties to distribute and sell CG in the Richmond, Virginia RFG covered area through midnight on September 30. Retail outlets and wholesale purchaser-consumers will be allowed to continue selling or dispensing this fuel after September 30, until their supplies are depleted. EPA and the Department of Energy will continue to monitor the situation closely and work with state and local governments to evaluate and respond to changing circumstances. [More information on hurricane-related fuel waivers is currently available.](#)

**General Services Administration** - The Secretary of Defense has authorized the following increases in thresholds for procurements in support of Hurricane Katrina disaster relief operations:

- Micro-Purchases- increased to \$15,000
- Simplified Acquisitions- increased to \$250,000
- Simplified acquisitions under the Test Program for certain Commercial Items- increased to \$10,000,000

GSA, IAW the Secretary of Defense's determination has determined that conditions exist authorizing the increase in the thresholds for all agencies GSA provides support to in response to the disaster.

These increases in the thresholds remain in effect until revoked.

GSA has also reminded its contracting officers of the authority to use urgent and compelling circumstances

- Urgent and compelling circumstances justify award on a limited competition or sole source basis
- Urgent and compelling circumstances must be documented in the contract file
- Urgent and compelling circumstances may be documented in the contract file post award

Normal risks for increased procurement limits - GSA plans to manage through increased monitoring of transactions and continued application of its procurement "Get it Right" campaign.

GSA has also reminded its contracting officers about waivers of the "Buy American Act "(BAA) based on "non-availability"

- Non-availability can be determined if American made products can't be purchased in the time necessary to meet the requirement, or cannot be purchased at a reasonable price.
  - GSA has delegated this authority to contracting officers at or below \$100K
  - Waivers above \$100K must be made by the "Head of Contracting Activity" (HCA)
  - GSA has HCAs in each of its regions, in each of its services and at its headquarters.

(Travel FTR Amendment 05-06) Waiver of per diem limits in affected areas. Federal Agencies may now issue blanket waivers to per diem requirements for travelers in areas affected by Hurricane Katrina. This allows reimbursement for actual expenses to three times the normal per diem.

- Effective August 29, 2005 through March 1, 2006, unless extended.
- Covers the States of Alabama, Louisiana, and Mississippi.
- Agencies cannot exceed 300% of the applicable per diem rate.
- Agencies cannot exceed 120 days of Temporary Quarters Subsistence Expenses (TQSE).

(Travel FTR Amendment 05-06) For temporary duty travel (TDY) the waiver allows agencies:

- To authorize on a blanket basis the use of actual expense for per diem (of up to 300% of the maximum).
- To authorize per diem based on where lodging is obtained for those who cannot find it in the area to which they assigned.

(Travel FTR Amendment 05-06) For relocation the waiver allows agencies:

- To authorize TQSE to be anywhere rather than the required reasonable proximity to the new official duty station.
- To authorize TQSE expenses at the locality rate rather than the lower Standard CONUS rate.
- To authorize house hunting trips under the actual expense allowances.

(Travel FTR Amendment 05-04) In recognition of recent gasoline price increases, the Administrator of General Services has determined the reimbursable amount per mile for operating costs of a POV to be 48.5 cents for automobiles, the same as announced by the Internal Revenue Service on September 9, 2005. While gasoline is a major factor in the mileage figure, other items enter into the calculation of mileage rates, such as price of new vehicles and insurance. This reimbursement is effective September 1 through December 31, 2005.

(Personal Property Screening) The GSA requested authorization from FEMA to "convey, lend, or donate" excess or surplus federal personal property assets to state and local organizations involved in relief and disaster assistance efforts under the provisions of the Stafford Act. Mr. Richard Gray of FEMA approved the directive at GSA's request on September 12, 2005.

- This authority gives GSA the flexibility to provide these assets without screening for other federal or donation requests; instead allowing the expeditious use of this property in the areas most affected by Hurricane Katrina.
- The full title of the Stafford Act is "Robert T. Stafford Disaster Relief and Emergency Assistance Act". The appropriate implementing regulation is 44 CFR 206.5

(Personal Property Screening) The GSA will continue, under FMR (102-36), to expedite the federal screening of property in order to be able to donate this property to state agencies affected by the hurricane. The screening process for federal agencies can be reduced to hours or days.

(Personal Property Screening) Disaster relief efforts may be considered, under FMR (102-37.100), when GSA allocates surplus property to the states, which will allow those areas most affected by the hurricane to receive needed items on a priority basis for as long as there is still an "extraordinary need".

(Vehicle Sales) GSA Fleet immediately halted all sales of vehicles in preparation of recovery needs and to help replace agency vehicles destroyed in the hurricane. GSA OGP in turn sent notification on September 8, 2005 to all agencies recommending the following:

- Suspend all vehicle sales for a period of 90 days. GSA Fleet has already done this to make more vehicles available to their customer agencies. All other agencies need to make an agency wide evaluation of their needs and determine if putting sale vehicles back in service can help your agency meet their needs. Agencies should make every effort to share resources between services, bureaus and geographic regions to ensure full utilization of your agency resources.
- Transfer excess vehicles to other federal agencies. Agencies should explore all avenues to transfer vehicles to other federal agencies that have a critical need for vehicles. Attached is a list of agency fleet managers you can contact to make them aware of vehicles you may have available for immediate use.

(Vehicles FMR Premium Fuel Deviation) GSA OGP has granted a deviation from section 102-34.335 of the Federal Management Regulation (FMR) (41 CFR 102-34.335) to all agencies whose purchase of gasoline for motor vehicles has been impacted by Hurricane Katrina. This deviation will allow Federal agencies to purchase premium gasoline for government owned and leased vehicles when lower grade gasoline is not available.

- This Deviation was published in the Federal Register Wednesday, September 14, 2005. A notice was sent via e-mail to all National Fleet Managers on Tuesday, September 12, 2005.

#### **State and Local**

The Governor of the State of West waived the enforcement of all applicable laws governing the transport of

10/6/2005



oversized loads intended for relief efforts for Hurricane Katrina.

**Related Information**

- [List of Government Waivers and Dispensations Authorized for Hurricane Katrina Response](#)

**Environmental Protection Agency**

9/30/05 5:30 PM

EPA emergency response personnel are working in partnership with FEMA to help assess and cleanup from Katrina and Rita. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**Actions**

**Air Screening Data** - EPA posted ASPECT air screening data from flyovers conducted on 9/25 to assess chemical and petroleum facilities near Beaumont and Freeport, TX. Sampling efforts resulted in chemicals detected at or below the instrument's ability to accurately detect the chemicals and these results do not demonstrate an immediate health effect to the public. Results can be viewed at <http://www.epa.gov/katrina/testresults/air/aspect.html>

**Mobile Labs** - EPA has set up two bacteriological analyses mobile labs to test drinking water in Louisiana.

**Sampling** - On 9/29, sampling continued on sediment and outfall and surface water in New Orleans. EPA also sampled water in the Back Bay of Biloxi, MS. EPA's soil/sediment sampling in affected areas along the Gulf Coast is now scheduled to begin 10/3.

**National Priorities List** - EPA teams continue to assess National Priorities List (NPL) sites in the area affected by Rita. Twenty seven of the 28 TX sites have been assessed. Five NPL sites will be assessed in Louisiana. There are 15\* NPL sites in the hurricane Katrina-affected area of LA, 6 in AL and 3 in MS. Initial assessments have been conducted on these sites. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. Water and sediment samples have been collected at the Agriculture Street site.

**Fuel Waivers** - On 9/27, EPA issued waivers for certain diesel and gasoline requirements for affected areas across the country to minimize or prevent fuel supply disruptions resulting from Hurricanes Katrina and Rita. These waivers will help address fuel supply problems by increasing the types of fuel that can be sold in those areas:

- EPA granted a second waiver to allow conventional gasoline (CG) to be distributed to terminals for the Houston-Galveston reformulated gasoline (RFG) covered area and Dallas-Fort Worth RFG area through midnight on 10/20. Also, EPA waived the low emission diesel requirements in the Texas State Implementation Plan (SIP), consistent with a state waiver of its standards, delaying the start of the program for 20 days, until 10/21.
- EPA granted a fourth waiver to allow CG to be distributed to terminals for the Richmond, Va. RFG covered area through midnight on 10/20.
- EPA granted a waiver to allow CG to be distributed to terminals for the St. Louis RFG covered area through midnight on 10/7.
- EPA issued a second waiver of the low sulfur requirements in the Georgia State Implementation Plan (SIP) for the Atlanta area for gasoline produced through midnight on 10/25.
- EPA issued a second waiver of the gasoline Reid vapor pressure (RVP) requirements in the California State Implementation Plan (SIP) for gasoline produced through midnight on 10/24.

EPA and the Department of Energy will continue to monitor the situation closely and work with state and local governments to evaluate and respond to changing circumstances.

**Drinking Water Assessment** -- In LA, there are a total of 1591 drinking water facilities that served approximately 5 million people. As of 9/29, EPA has determined that 378 of these facilities are operational, 80 are operating on a boil water notice, 32 are not operating, and further information is being gathered on 1101 (most of these facilities are in unaffected areas). In MS, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,253 of these facilities are operational, 79 are operating on a boil water notice and 36 are inoperable. MS has contacted all facilities to verify status. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is continuing to assess all drinking water plants in the affected area.

**Wastewater** -- In the LA affected area, there are a total of 173 Public Owned Treatment Works (POTW). As of 9/29, EPA has determined that 140 of these facilities are operational and 33 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, 7 facilities are operating and 1 is not operating. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program continues to assess wastewater treatment plants in the affected area.

**Debris Assessment and Collection** -- Collection activities continue for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/29, EPA has collected over 47,000 HHW/orphan containers throughout the affected region. Collection sites are in place in LA, MS, and AL. The draft Debris Removal Plans for LA, AL, and MS, are in final review. The plans will enable Federal agencies and the states to comprehensively manage large scale and complex debris.

**\*In previous updates, one additional "NPL Equivalent" site was included in the Louisiana NPL total.**

**Environmental Protection Agency**

9/29/05 4:45 PM

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**Actions**

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EPA and the Department of Energy will continue to monitor the situation closely and work with state and local governments to evaluate and respond to changing circumstances.

**Sampling** – On 9/30, sampling of soil/sediment is expected to begin in affected areas along the Gulf coast. On 9/29, sampling continued on sediment, air, and water (flood, outfall, and surface) in New Orleans.

**National Priorities List** – EPA teams continue to assess National Priorities List (NPL) sites in the area affected by Rita. Twenty one of the 28 TX sites have been assessed. Five NPL sites will be assessed in Louisiana. There are 15\* NPL sites in the hurricane Katrina-affected area of LA, 6 in AL and 3 in MS. Initial assessments have been conducted on these sites. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. On 9/26, a team collected one surface water sample from the Florida Canal near the Agriculture Street site in New Orleans, and on 9/25, one sample from the People's Canal near the site.

**Chemical and Petroleum** - No large environmental incidents from Rita were identified in Texas that need to be addressed by EPA at this time. EPA is examining existing damage in western Louisiana parishes and the possible need for EPA assets in these areas.

**Drinking Water Assessment** -- In LA, there are a total of 1591 drinking water facilities that served approximately 5 million people. As of 9/28, EPA has determined that 294 of these facilities are operational, 30 are operating on a boil water notice, 25 are not operating, and further information is being gathered on 1272 (most of these facilities are in unaffected areas). In MS, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,250 of these facilities are operational, 81 are operating on a boil water notice and 37 are inoperable. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is continuing to assess all drinking water plants in the affected area.

**Wastewater** -- In the LA affected area, there are a total of 173 Public Owned Treatment Works (POTW). As of 9/28, EPA has determined that 124 of these facilities are operational and 49 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others have operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program continues to assess wastewater treatment plants in the affected area.

**Debris Assessment and Collection** – Collection activities are resuming following Rita for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel will continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/29, EPA has collected over 45,000 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plans for LA, AL, and MS, are in final review. The plan will enable Federal agencies and the states to comprehensively manage large scale and complex debris.

**\*In previous updates, one additional “NPL Equivalent” site was included in the Louisiana NPL total.**

## Environmental Protection Agency

9/27/05 3:00 PM

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### Actions

**Air Monitoring** – On 9/26, EPA's flying laboratory, ASPECT, conducted flights in the Lake Charles area. EPA's two TAGA buses are being used to collect screening level air data in multiple locations throughout New Orleans.

**Public Outreach** – EPA has translated several documents, including press releases, news briefs, public safety advisories, and water safety information, into Spanish and Vietnamese to assist individuals in the affected areas. Additionally, FEMA requested EPA, and other federal agencies, to provide a recorded message of information for broadcast over XM radio and TV to the evacuee shelters. EPA senior personnel are doing the interviews.

**Superfund Sites** – EPA teams are preparing to travel to all National Priorities List (NPL) sites in areas affected by Hurricane Rita. There are 16 NPL sites in the hurricane Katrina-affected area of LA, 6 in AL and 3 in MS. 16 of the sites in LA have had initial assessments. Initial Rapid Assessments have been made on the 9 sites in AL and MS. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. On 9/26, a team collected one surface water sample from the Florida Canal near the Agriculture Street site in New Orleans, and on 9/25, one sample from the People's Canal near the site.

**Chemical and Petroleum** - No large environmental incidents from Rita were identified in Texas that need to be addressed by EPA at this time. EPA is examining existing damage in western Louisiana parishes and the possible need for EPA assets in these areas.

**Drinking Water Assessment** -- In LA, there are a total of 1591 drinking water facilities that served approximately 5 million people. As of 9/26, EPA has determined that 264 of these facilities are operational, 30 are operating on a boil water notice, 25 are not operating, and further information is being gathered on 1272. In MS, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,247 of these facilities are operational, 83 are operating on a boil water notice and 38 are either inoperable or their status is unknown. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is continuing to assess all drinking water plants in the affected area.

**Wastewater** -- In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/26, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 117 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA issued an emergency Administrative Order to the Sewerage and Water Board of New Orleans to temporarily allow discharges from the East Bank Wastewater Treatment Plant to the Mississippi as a result of Katrina. This effort was coordinated with LDEQ. EPA has developed a set of questions and answers that will assist in responding to inquiries. Discussions among agencies represented at the Joint Field Office are ongoing to determine when to stop pumping water out of New Orleans into Lake Pontchartrain. EPA personnel are reviewing historic water quality and current conditions obtained from environmental sampling. EPA's Water program continues to assess wastewater treatment plants in the affected area.

**Debris Assessment and Collection** – Collection activities are resuming following Rita for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel will continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plan for LA, AL, and MS, is in final review. The plan will enable Federal agencies and the states to comprehensively manage funding for large scale and complex debris.

## EPA Response Activity - September 28

**Sampling** – On 9/27, sampling continued on sediment and water (flood, outfall, and surface) in New Orleans.

**Air Monitoring** – On 9/27, air monitoring and sampling equipment was prepared for deployment to stations in Orleans and Jefferson Parishes.

**Superfund Sites** – EPA teams continue to assess National Priorities List (NPL) sites in the area affected by Rita. Eight of the 28 TX sites have been assessed. Five NPL sites will be assessed in Louisiana. There are 15\* NPL sites in the hurricane Katrina-affected area of LA, 6 in AL and 3 in MS. Initial assessments have been conducted on these sites. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. On 9/26, a team collected one surface water sample from the Florida Canal near the Agriculture Street site in New Orleans, and on 9/25, one sample from the People's Canal near the site.

**\*In previous updates, one additional "NPL Equivalent" site was included in the Louisiana NPL total.**

**Chemical and Petroleum** – No large environmental incidents from Rita were identified in Texas that need to be addressed by EPA at this time. EPA is examining existing damage in western Louisiana parishes and the possible need for EPA assets in these areas.

**Drinking Water Assessment** – In LA, there are a total of 1591 drinking water facilities that served approximately 5 million people. As of 9/27, EPA has determined that 264 of these facilities are operational, 30 are operating on a boil water notice, 25 are not operating, and further information is being gathered on 1272 (most of these facilities are in unaffected areas). In MS, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,250 of these facilities are operational, 81 are operating on a boil water notice and 37 are either inoperable or their status is unknown. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is continuing to assess all drinking water plants in the affected area.

**Wastewater** – -- In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/27, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program continues to assess wastewater treatment plants in the affected area.

**Debris Assessment and Collection** – Collection activities are resuming following Rita for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel will continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plans for LA, AL, and MS, are in final review. The plan will enable Federal agencies and the states to comprehensively manage funding for large-scale and complex debris.

## **Environmental Protection Agency**

9/27/05 9:00 AM

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina and Rita. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

### **Actions**

**Air Monitoring** – On 9/26, EPA’s flying laboratory, ASPECT, conducted flights in the Lake Charles area. EPA’s two TAGA buses are being used to collect screening level air data in multiple locations throughout New Orleans.

**Public Outreach** – EPA has translated several documents, including press releases, news briefs, public safety advisories, and water safety information, into Spanish and Vietnamese to assist individuals in the affected areas. Additionally, FEMA requested EPA, and other federal agencies, provide a recorded message of information for broadcast over XM radio and TV to the evacuee shelters. EPA senior personnel are doing the interviews.

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**Chemical and Petroleum** - No large environmental incidents from Rita were identified in Texas that need to be addressed by EPA at this time. EPA is examining existing damage in western Louisiana parishes and the possible need for EPA assets in these areas.

**Drinking Water Assessment** -- In LA, there are a total of 1591 drinking water facilities that served approximately 5 million people. As of 9/26, EPA has determined that 264 of these facilities are operational, 30 are operating on a boil water notice, 25 are not operating, and further information is being gathered on 1272. In MS, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,247 of these facilities are operational, 83 are operating on a boil water notice and 38 are either inoperable or their status is unknown. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA’s Water program is continuing to assess all drinking water plants in the affected area.

**Wastewater** -- In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/26, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 117 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA issued an emergency Administrative Order to the Sewerage and Water Board of New Orleans to temporarily allow discharges from the East Bank Wastewater Treatment Plant to the Mississippi as a result of Katrina. This effort was coordinated with LDEQ. EPA has developed a set of questions and answers that will assist in responding to inquiries. Discussions among agencies represented at the Joint Field Office are ongoing to determine when to stop pumping water out of New Orleans into Lake Pontchartrain. EPA personnel are reviewing historic water quality and current conditions obtained from environmental sampling. EPA’s Water program continues to assess wastewater treatment plants in the affected area.

**Debris Assessment and Collection** – Collection activities are resuming following Rita for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel will continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plan is in final review. The plan will enable Federal agencies and the State of Louisiana to comprehensively manage funding for large scale and complex debris.



## EPA Response Activity - September 26

**Katrina-specific Response** – On 9/26, EPA operations resumed on a limited scale in New Orleans. Flood water and sediment sampling continued.

### **Rita-specific Response**

**Personnel** – EPA has deployed three EPA response personnel and four contractors to the Regional Response Coordination Center in Austin, TX. The pre-deployment team is co-located with other federal and state personnel. An EPA Incident Management Team consisting of 18 EPA personnel is staged in Dallas, TX and will deploy to Northwest Houston on 9/26. Additional response and contract personnel are standing by and will be brought to the scene once an initial needs assessment is complete.

**Chemical and Petroleum** – The Texas Commission of Environmental Quality (TCEQ) and EPA contacted chemical and refinery industry along the hurricane's path prior to the storm concerning their plans to secure and shut-down their plants. The Risk Management Program (RMP) under the Clean Air Act requires facilities to develop an emergency plan and coordinate their activities with local officials. Additional measures are being taken for any necessary response actions at chemical and petroleum facilities. EPA is mapping the facilities and sites impacted by Hurricane Rita. These maps will be used to conduct a Rapid Needs Assessment. EPA and EPA contractor staff are part of a 35 person Rapid Needs Assessment Team that includes Federal, state, and local members. EPA will focus on oil and hazardous material facilities and possible spill impact. EPA has also listed these facilities in the Agency's Rapid Assessment Integrated Database (RAID) which prioritizes targets for the reconnaissance phase of the response. Chemical products stored at the larger facilities to assist responders are also being identified.

**Superfund and Hazardous Waste Sites** – EPA is mapping Superfund hazardous waste sites impacted by Hurricane Rita. Ten EPA/state teams are preparing to travel to all National Priorities List sites in areas affected by Hurricane Rita. Sites will be inspected in priority order, with all sites inspected within seven to ten days.

### **Overall Hurricane Response**

**Public Outreach** – EPA has translated several documents, including press releases, news briefs, public safety advisories, and water safety information, into Spanish and Vietnamese to assist individuals in the affected areas. Additionally, FEMA requested EPA, and other federal agencies, provide a recorded message of information for broadcast over XM radio and TV to the evacuee shelters. EPA senior personnel are doing the interviews.

**Air Monitoring** – On 9/23, EPA in coordination with LDEQ released results of air screening samples collected from multiple locations across New Orleans on 9/11 and 13-19. The screening samples show particle pollution at levels considered moderate or "code yellow" under the coarse particle AQI on September 13, 14, 18 and 19. At these levels, unusually sensitive people should consider not engaging in vigorous exercise. More information is available at: <http://airnow.gov/index.cfm?action=particle.cover> These initial results represent the beginning of extensive sampling efforts and do not represent all air conditions throughout the area. As this is a dynamic situation, general conclusions should not be made regarding air quality based on results from this snapshot of data.

EPA is conducting air sampling via several assets. The ASPECT airplane flew over Port Arthur, Orange and Beaumont areas on 9/24 where a number of heavy industrial petrochemical facilities are located. Preliminary analysis of the screening data from these flights is expected this week. EPA's ASPECT aircraft has done 15 flights to date. EPA's two TAGA buses are being used to collect screening level air data in multiple locations throughout New Orleans. Data from air samples taken 9/12-9/18 is posted.

**Hurricane-Related Fuel Waivers** - In the continued effort to minimize potential fuel supply disruptions on 9/22 EPA expanded the waiver to allow conventional gasoline (CG) to be sold and distributed in the Houston-Galveston reformulated gasoline (RFG) covered area to cover the Dallas-Fort Worth RFG area through midnight on September 30. The State of Texas is preparing a request for a 30-day waiver for each of the phased-in implementation dates for the Texas Low Emission Diesel Program. The new dates, based on the request, would be October 31 for producers and importers, December 15 for terminals and distributors, and January 31, 2006 for

retail. In a related action, EPA granted a third waiver to extend the 9/9 waiver to allow regulated parties to distribute and sell CG in the Richmond, Virginia RFG covered area through midnight on 9/30. Retail outlets and wholesale purchaser-consumers will be allowed to continue selling or dispensing this fuel after 9/30, until their supplies are depleted. More information is available at: <http://www.epa.gov/compliance/katrina/waiver/index.html>.

**Public Information** – On 9/19, EPA posted on its Web site an extensive list of questions and answers regarding flood water, drinking water, wastewater, human health, air issues, sediment, oil spills and superfund sites, asbestos, debris, and fuel waivers. <http://www.epa.gov/katrina/tags.htm> Louisiana Department of Health and Hospitals publicized its boil notice for water systems affected by Hurricane Rita system affected by Hurricane Rita in a news release on 9/23/05. EPA assisted by distribution the news release in both Louisiana and East Texas.

**Sediment Sampling** – On 9/22, EPA posted analytical results of sediment sampling from New Orleans. On 9/16 based on the initial results of this data, EPA recommended avoiding all contact with the sediment, where possible, due to the presence of *E. coli* and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control and Prevention strongly advise the use of soap and water, if available, to clean the exposed areas, and removal of contaminated clothing.

**EPA-CDC Report** – EPA and CDC formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial Environmental Health Needs & Habitability Assessment issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to re-inhabiting New Orleans. Available at: [http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)

**Debris Assessment and Collection** – Collection activities are resuming following Rita for household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel will continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plan is in final review. The plan will enable Federal agencies and the State of Louisiana to comprehensively manage funding for large scale and complex debris.

**Superfund Sites** – There are 16 NPL sites in the hurricane Katrina affected area of LA, 6 in AL and 3 in MS. 16 of the sites in LA have had initial assessments. Initial Rapid Assessments have been made on the 9 sites in AL and MS. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. Teams are ready to go to sample all affected NPL sites (both Katrina and Rita). On 9/25, a team collected one surface water sample from the People's Canal at the Agriculture Street site.

**Drinking Water Assessment** – In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/25, EPA has determined that 548 of these facilities are operational, 17 are operating on a boil water notice and 118 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,228 of these facilities are operational, 100 are operating on a boil water notice and 40 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is preparing to assess all drinking water plants after Hurricane Rita passes through.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/22, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA issued an emergency Administrative Order to

the Sewerage and Water Board of New Orleans to temporarily allow discharges from the East Bank Wastewater Treatment Plant to the Mississippi as a result of Katrina. This effort was coordinated with LDEQ. EPA has developed a set of questions and answers that will assist in responding to inquiries. Discussions among agencies represented at the Joint Field Office are ongoing to determine when to stop pumping water out of New Orleans into Lake Pontchartrain. EPA personnel are reviewing historic water quality and current conditions obtained from environmental sampling. EPA's Water program is preparing to assess all wastewater treatment plans.

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## EPA Response Activity - September 25

### Rita-specific Response

**Personnel** - EPA has deployed three EPA response personnel and four contractors to the Regional Response Coordination Center in Austin, Texas. The pre-deployment team is co-located with other federal and state personnel. An EPA Incident Management Team consisting of 18 EPA personnel is staged in Dallas, Texas and will deploy to Northwest Houston on 9/26. Additional response and contract personnel are standing by and will be brought to the scene once an initial needs assessment is complete.

**Chemical and Petroleum** - The Texas Commission of Environmental Quality (TCEQ) and EPA contacted chemical and refinery industry along the hurricane's path prior to the storm concerning their plans to secure and shut-down their plants. The Risk Management Program (RMP) under the Clean Air Act requires facilities to develop an emergency plan and coordinate their activities with local officials. Additional measures are being taken for any necessary response actions at chemical and petroleum facilities. EPA is mapping the facilities and sites impacted by Hurricane Rita. These maps will be used to conduct a Rapid Needs Assessment. EPA and EPA contractor staff are part of a 35 person Rapid Needs Assessment Team that includes Federal, state, and local members. EPA will focus on oil and hazardous material facilities and possible spill impact. EPA has also listed these facilities in the Agency's Rapid Assessment Integrated Database (RAID) which prioritizes targets for the reconnaissance phase of the response. Chemical products stored at the larger facilities to assist responders are also being identified.

**Superfund and Hazardous Waste Sites** - EPA is mapping Superfund hazardous waste sites impacted by Hurricane Rita. Ten EPA/State teams are preparing to travel to all National Priorities List sites in areas affected by Hurricane Rita. Sites will be inspected in priority order, with all sites inspected within seven to ten days.

### Overall Hurricane Response

**Public Outreach** -- EPA has translated several documents, including press releases, news briefs, public safety advisories, and water safety information, into Spanish and Vietnamese to assist individuals in the affected areas. Additionally, FEMA requested EPA, and other federal agencies, provide a recorded message of information for broadcast over XM radio and TV to the evacuee shelters. EPA senior personnel are doing the interviews.

**Gulf/Mississippi Water Sampling** -- EPA's ocean water testing vessel, the Bold, is scheduled for a 9/26 mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Air Monitoring** -- On 9/23, EPA in coordination with LDEQ released results of air screening samples collected from multiple locations across New Orleans on 9/11 and 13-19. The screening samples show particle pollution at levels considered moderate or "code yellow" under the coarse particle AQI on September 13, 14, 18 and 19. At these levels, unusually sensitive people should consider not engaging in vigorous exercise. More information is available at: <http://airnow.gov/index.cfm?action=particle.cover> These initial results represent the beginning of extensive sampling efforts and do not represent all air conditions throughout the area. As this is a dynamic situation, general conclusions should not be made regarding air quality based on results from this snapshot of data.

An EPA helicopter and an Air Force plane with air monitoring (ASPECT-like) technology are positioned in New Orleans and Texas to conduct over-flight assessments once weather permits. EPA is conducting air sampling needs via several assets. The ASPECT airplane flew over Port Arthur, Orange and Beaumont areas on 9/24 where a number of heavy industrial petrochemical facilities are located. Preliminary analysis of the screening data from these flights is expected this week. EPA's ASPECT aircraft has done 15 flights to date. EPA's two TAGA buses are being used to collect screening level air data in multiple locations throughout New Orleans. Data from air samples taken 9/12-9/18 is posted.

**Hurricane-Related Fuel Waivers** - In the continued effort to minimize potential fuel supply disruptions on 9/22 EPA expanded the waiver to allow conventional gasoline (CG) to be sold and distributed in the Houston-Galveston reformulated gasoline (RFG) covered area to cover the Dallas-Fort Worth RFG area through midnight on September 30. The State of Texas is preparing

a request for a 30 day waiver for each of the phased-in implementation dates for the Texas Low Emission Diesel Program. The new dates, based on the request, would be October 30 for producers and importers, December 15 for terminals and distributors, and January 30, 2006 for retail. In a related action, EPA granted a third waiver to extend the 9/9 waiver to allow regulated parties to distribute and sell CG in the Richmond, Virginia RFG covered area through midnight on 9/30. Retail outlets and wholesale purchaser-consumers will be allowed to continue selling or dispensing this fuel after 9/30, until their supplies are depleted. More information is available at: <http://www.epa.gov/compliance/katrina/waiver/index.html>.

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**Sediment Sampling** -- On 9/22, EPA posted analytical results of sediment sampling from New Orleans. On 9/16 based on the initial results of this data, EPA recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control and Prevention strongly advise the use of soap and water, if available, to clean the exposed areas, and removal of contaminated clothing.

**EPA-CDC Report** -- EPA and CDC formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial Environmental Health Needs & Habitability Assessment issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to re-inhabiting New Orleans. Available at: [http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)

**Debris Assessment and Collection** -- All field activities have been on stand down due to Hurricane Rita. Activity will resume in the Tammany Parish. EPA is conducting air monitoring at debris burn sites in Louisiana. EPA teams continue collection of household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region. Four collection sites have been put into place for collection of these wastes in MS and AL and one collection site has been located in St. Tammany Parish, LA. The draft Debris Removal Plan is in final review. The plan will enable Federal agencies and the State of Louisiana to comprehensively manage funding for large scale and complex debris.

**Superfund Sites** - There are 16 NPL sites in the hurricane Katrina affected area of LA, 6 in AL and 3 in MS. 16 of the sites in LA have had initial assessments. Initial Rapid Assessments have been made on the 9 sites in AL and MS. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites. Teams are ready to go to sample all affected NPL sites (both Katrina and Rita). EPA plans to sample the Agriculture Street Landfill site on Sunday, weather conditions permitting.

**Rapid Needs Assessment-Katrina** --EPA and LDEQ are coordinating to develop schedules on how to look at NPL sites, including the Malone Services and Jasper Creosote sites. The schedule is to be completed by end of day Sunday, 9/25.

**Drinking Water Assessment** -- In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/22, EPA has determined that 534 of these facilities are operational, 19 are operating on a boil water notice and 130 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,228 of these facilities are operational, 100 are operating on a boil water notice and 40 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA's Water program is preparing to assess all drinking water plants after Hurricane Rita passes through.

**Wastewater** -- In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/22, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that operational facilities may still be in need of repair or reconstruction. EPA issued an emergency Administrative Order to the Sewerage and Water Board of New Orleans to temporarily allow discharges from the East Bank Wastewater Treatment Plant to the Mississippi as a result of Katrina. This effort was coordinated with LDEQ. EPA has developed a set of questions and answers that will assist in responding to inquiries. Discussions among agencies represented at the Joint Field Office are ongoing to determine when to stop pumping water out of New Orleans into Lake Pontchartrain. EPA personnel are reviewing historic water quality and current conditions obtained from environmental sampling. EPA's Water program is preparing to assess all wastewater treatment plans.

## EPA Response Activity - September 24

**Hurricane Rita Preparations** - EPA worked closely with the state of Texas to prepare for Hurricane Rita. EPA has pre-deployed three EPA response personnel and four contractors to the Regional Response Coordination Center in Austin, Texas. The pre-deployment team is co-located with other federal and state personnel to coordinate planning for Hurricane Rita response priorities. A full EPA Incident Management Team consisting of 18 EPA personnel will stage in Dallas, Texas on 9/24. The team will deploy to the impacted area as soon as the storm passes (anticipated to be 9/26). Additional response and contract personnel are standing by and will be brought to the scene once an initial needs assessment is complete. The Texas Commission of Environmental Quality (TCEQ) and EPA contacted chemical and refinery industry along the hurricane's path concerning their plans to secure and shut-down their plants. The Risk Management Program (RMP) under the Clean Air Act requires facilities to develop an emergency plan and coordinate their activities with local officials. Additional measures are being taken to prepare for response actions at chemical and petroleum facilities. EPA is currently mapping the facilities and sites expected to be impacted by Hurricane Rita. These maps will be used to conduct a Rapid Needs Assessment that will be conducted shortly after the storm passes. EPA has also listed these facilities in the Agency's Rapid Assessment Integrated Database (RAID) which prioritizes targets for the reconnaissance phase of the response. Chemical products stored at the larger facilities to assist responders are also being identified. EPA is currently mapping Superfund hazardous waste sites expected to be impacted by Hurricane Rita. Teams of project managers are prepared to deploy to affected Superfund hazardous waste sites as soon as the storm passes. These teams will conduct thorough assessments and, if necessary, they will also sample the sites to determine any impact.

**Public Outreach** - FEMA has requested EPA, and other federal agencies, to provide a recorded message of information for broadcast over XM radio and TV to the evacuee shelters. EPA senior personnel are doing the interviews.

**Hurricane-Related Fuel Waivers** - In the continued effort to minimize potential fuel supply disruptions caused by Hurricane's Rita and Katrina, on 9/22 EPA expanded the waiver to allow conventional gasoline (CG) to be sold and distributed in the Houston-Galveston reformulated gasoline (RFG) covered area to cover the Dallas-Fort Worth RFG area through midnight on September 30. In a related action, EPA granted a third waiver to extend the 9/9 waiver to allow regulated parties to distribute and sell CG in the Richmond, Virginia RFG covered area through midnight on 9/30. Retail outlets and wholesale purchaser-consumers will be allowed to continue selling or dispensing this fuel after 9/30, until their supplies are depleted. EPA and the Department of Energy will continue to monitor the situation closely and work with state and local governments to evaluate and respond to changing circumstances. [More information on hurricane-related fuel waivers](http://www.epa.gov/compliance/katrina/waiver/index.html) (<http://www.epa.gov/compliance/katrina/waiver/index.html>).

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three "moderate" PM 10 days a year, based on measurements taken every six days. These data were collected using a portable, battery-powered monitor that often is used in emergency response situations, because it gives immediate readings. EPA does not use data from these types of monitors either for compliance purposes or for generating routine air quality advisories. These initial results represent the beginning of extensive sampling efforts and do not represent all air conditions throughout the area. As this is a dynamic situation, general conclusions should not be made regarding air quality based on results from this snapshot of data.

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**Debris Assessment and Collection** – EPA is conducting air monitoring at debris burn sites in Louisiana. EPA teams continue collection of household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/22, EPA has collected over 37,550 HHW/orphan containers throughout the affected region.

**Drinking Water Assessment** – In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/22, EPA has determined that 534 of these facilities are operational, 19 are operating on a boil water notice and 130 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3.2 million people. EPA has determined that 1,228 of these facilities are operational, 100 are operating on a boil water notice and 40 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that "operational" facilities may still be in need of repair or reconstruction.

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**Superfund Sites** - There are 16 NPL sites in the hurricane affected area of LA, 6 in AL and 3 in MS. 16 of the sites in LA have had initial assessments. Initial Rapid Assessments have been made on the 9 sites in AL and MS. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites.



### EPA Response Activity - September 23

**Rita Preparations** - EPA is working closely with the state of Texas to prepare for Hurricane Rita. EPA has pre-deployed three EPA response personnel and four contractors to the Regional Response Coordination Center in Austin, Texas. The pre-deployment team is co-located with other federal and state personnel to coordinate planning for Hurricane Rita response priorities. A full EPA Incident Management Team consisting of 18 EPA personnel will stage in Dallas, Texas on 9/24. The team will deploy to the impacted area as soon as the storm passes (anticipated to be 9/26). Additional response and contract personnel are standing by and will be brought to the scene once an initial needs assessment is complete. The Texas Commission of Environmental Quality (TCEQ) and EPA have been contacting chemical and refinery industry along the hurricane's path concerning their plans to secure and shut-down their plants. The Risk Management Program (RMP) under the Clean Air Act requires facilities to develop an emergency plan and coordinate their activities with local officials. Additional measures are being taken to prepare for response actions at chemical and petroleum facilities. EPA is currently mapping the facilities and sites expected to be impacted by Hurricane Rita. These maps will be used to conduct a Rapid Needs Assessment that will be conducted shortly after the storm passes. EPA has also listed these facilities in the Agency's Rapid Assessment Integrated Database (RAID) which prioritizes targets for the reconnaissance phase of the response. Chemical products stored at the larger facilities to assist responders are also being identified. EPA is currently mapping Superfund hazardous waste sites expected to be impacted by Hurricane Rita. Teams of project managers are prepared to deploy to affected Superfund hazardous waste sites as soon as the storm passes. These teams will conduct thorough assessments and, if necessary, they will also sample the sites to determine any impact.

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## EPA Response Activity - September 22

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**EPA-CDC Report** – EPA and CDC formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial [Environmental Health Needs & Habitability Assessment](#) ([http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)) issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to re-inhabiting New Orleans.

**Debris Assessment and Collection** – EPA is conducting air monitoring at debris burn sites in Louisiana. EPA teams continue collection of household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/21, EPA has collected in excess of 29,750 HHW/orphan containers throughout the affected region.

**Drinking Water Assessment** – In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/21, EPA has determined that 534 of these facilities are operational, 19 are operating on a boil water notice and 130 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,181 of these facilities are operational, 147 are operating on a boil water notice and 40 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/21, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 118 POTW. EPA has determined that 114 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Air Monitoring** – On 9/16, EPA posted results of air screening samples collected by Trace Atmospheric Gas Analyzer (TAGA) buses on 9/12-13 from multiple locations in New Orleans. The screening results indicated that chemical concentrations in most areas are below Agency for Toxic Substances and Disease Registry (ATSDR) health standards of concern. The low level of volatile pollutants is not surprising as contaminants may be bound to the sediment. Monitoring data directly around the Murphy Oil spill revealed some slightly elevated levels of benzene and toluene that are associated with the petroleum release. Long-term exposure (a year or longer) at the levels measured would be required for health effects to be of concern.

**Gulf/Mississippi Water Sampling** – EPA's ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Superfund Sites** - There are 16 NPL sites in the hurricane affected area of LA, 6 in AL and 3 in MS. 16 of the sites in LA have had initial assessments. Initial Rapid Assessments have been made on the 9 sites in AL and MS. EPA is still in the assessment phase, and will continue to monitor all the impacted NPL sites

## EPA Response Activity - September 21

**Public Information** – On 9/19, EPA posted on its Web site [an extensive list of questions and answers](#) regarding flood water, drinking water, wastewater, human health, air issues, sediment, oil spills and superfund sites, asbestos, debris, and fuel waivers.

**Sediment Sampling** – On 9/19-20, EPA posted biological and chemical data testing results of sediment sampling from New Orleans taken on 9/10. On 9/16 based on the initial results of this data, EPA recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control and Prevention (CDC) strongly advise the use of soap and water, if available, to clean the exposed areas, and the removal of contaminated clothing.

**EPA-CDC Report** – EPA and CDC formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial Environmental Health Needs & Habitability Assessment issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to reinhabiting New Orleans. The report is available on the EPA web site at [http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)

**Debris Assessment and Collection** – EPA is conducting air monitoring at debris burn sites in Louisiana. EPA teams continue collection of household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/19, EPA has collected in excess of 28,000 HHW/orphan containers throughout the affected region.

**Drinking Water Assessment** – On 9/19, EPA mobile labs in Louisiana began distributing 700 drinking water sample test kits to Parish Health Units for use by private well owners. In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/20, EPA has determined that 522 of these facilities are operational, 26 are operating on a boil water notice and 135 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,215 of these facilities are operational, 111 are operating on a boil water notice and 42 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/20, EPA has determined that 87 of these facilities are operational and 35 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 115 POTW. EPA has determined that 111 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Air Monitoring** – On 9/16, EPA posted results of air screening samples collected by Trace Atmospheric Gas Analyzer (TAGA) buses on 9/12-13 from multiple locations in New Orleans. The screening results indicated that chemical concentrations in most areas are below Agency for Toxic Substances and Disease Registry (ATSDR) health standards of concern. The low level of volatile pollutants is not surprising as contaminants may be bound to the sediment. Monitoring data directly around the Murphy Oil spill revealed some slightly elevated levels of benzene and toluene that are associated with the petroleum release. Long-term exposure (a year or longer) at the levels measured would be required for health effects to be of concern.

**Gulf/Mississippi Water Sampling** – EPA's ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality (LEDQ), EPA's airplane ASPECT has conducted numerous flights to obtain environmental screening data. Results of this surveillance were posted on the EPA website 9/14. Compounds

identified were not found to be at levels exceeding OSHA standards with one exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel.

## EPA Response Activity - September 20

**Media Briefing** – On 9/21, EPA is planning a teleconference briefing for reporters on debris management with the Army Corps of Engineers, Occupational Safety and Health Administration, and Mississippi Department of Environmental Quality at 1 p.m.

**Debris Assessment and Collection** – EPA is conducting air monitoring at debris burn sites in Louisiana. EPA teams continue collection of household hazardous wastes (HHW) and orphan containers in the hurricane affected area. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/19, EPA has collected in excess of 28,000 HHW/orphan containers throughout the affected region.

**Public Information** – On 9/19, EPA posted on its Web site [an extensive list of questions and answers](#) regarding flood water, drinking water, wastewater, human health, air issues, sediment, oil spills and superfund sites, asbestos, debris, and fuel waivers.

**Sediment Sampling** – On 9/19, EPA posted biological data testing results of sediment sampling from New Orleans taken on 9/10. On 9/16 based on the initial results of this data, EPA recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control and Prevention (CDC) strongly advise the use of soap and water, if available, to clean the exposed areas, and the removal of contaminated clothing.

**EPA-CDC Report** – EPA and CDC formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial [Environmental Health Needs and Habitability Assessment](#) issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to re-inhabiting New Orleans.

**Drinking Water Assessment** – On 9/19, EPA mobile labs in Louisiana began distributing 700 drinking water sample test kits to Parish Health Units for use by private well owners. In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/19, EPA has determined that 522 of these facilities are operational, 26 are operating on a boil water notice and 135 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,207 of these facilities are operational, 118 are operating on a boil water notice and 43 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,662 people. EPA has determined that all 72 of these facilities are operational. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/19, EPA has determined that 86 of these facilities are operational and 36 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 115 POTW. EPA has determined that 111 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Air Monitoring** – On 9/16, EPA posted results of air screening samples collected by Trace Atmospheric Gas Analyzer (TAGA) buses on 9/12-13 from multiple locations in New Orleans. The screening results indicated that chemical concentrations in most areas are below Agency for Toxic Substances and Disease Registry (ATSDR) health standards of concern. The low level of volatile pollutants is not surprising as contaminants may be bound to the sediment. Monitoring data directly around the Murphy Oil spill revealed some slightly elevated levels of benzene and toluene that are associated with the petroleum release. Long-term exposure (a year or longer) at the levels measured would be required for health effects to be of concern.

**Gulf/Mississippi Water Sampling** – EPA’s ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality (LDEQ), EPA's airplane ASPECT has conducted numerous flights to obtain environmental screening data. Results of this surveillance were posted on the EPA web site 9/14. Compounds identified were not found to be at levels exceeding OSHA standards with one exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel.

**Superfund Sites** - On 9/13, EPA and the LDEQ sent teams to conduct reconnaissance at the four accessible National Priority List (NPL) sites. In addition, EPA has done an overflight assessment of the 5th site, since it is currently under water. EPA is also in the process of working with the states to assess 9 NPL sites in the hurricane affected areas of MS and AL.

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

#### **External Actions**

**EPA-CDC Report** – EPA and the Centers for Disease Control and Prevention (CDC) formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial Environmental Health Needs & Habitability Assessment issued 9/17 identifies a number of barriers to be overcome and critical decisions to be made prior to reinhabiting New Orleans. The report is available on the EPA web site at [http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)

**Drinking Water Assessment** – On 9/19, EPA mobile labs in the New Orleans area plan to distribute 700 drinking water sample test kits to Parish Health Units for use by private well owners. In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/17, EPA has determined that 498 of these facilities are operational, 26 are operating on a boil water notice and 159 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,139 of these facilities are operational, 181 are operating on a boil water notice and 48 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that "operational" facilities may still be in need of repair or reconstruction.

**Air Monitoring** – On 9/16, EPA posted results of air screening samples collected by Trace Atmospheric Gas Analyzer (TAGA) buses on 9/12-13 from multiple locations in New Orleans. The screening results indicated that chemical concentrations in most areas are below Agency for Toxic Substances and Disease Registry (ATSDR) health standards of concern. The low level of volatile pollutants is not surprising as contaminants may be bound to the sediment. Monitoring data directly around the Murphy Oil spill revealed some slightly elevated levels of benzene and toluene that are associated with the petroleum release. Long-term exposure (a year or longer) at the levels measured would be required for health effects to be of concern.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/17, EPA has determined that 86 of these facilities are operational and 36 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 115 POTW. EPA has determined that 111 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that "operational" facilities may still be in need of repair or reconstruction.

**Debris Assessment and Collection** – EPA teams continue collection of household hazardous wastes (HHW) and orphan containers. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/16, EPA has collected 28,160 HHW/orphan containers throughout the affected region.

**Sediment Sampling** – On 9/16, EPA released preliminary results of initial sediment sampling from New Orleans and recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control (CDC) strongly advise the use of soap and water, if available, to clean the exposed areas, and the removal of contaminated clothing.

**Gulf/Mississippi Water Sampling** – EPA's ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality (LEDQ), EPA's airplane ASPECT has conducted numerous flights to obtain environmental screening data. Results of this surveillance were posted on the EPA website 9/14. Compounds identified were not found to be at levels exceeding OSHA standards with one



exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel.

**Superfund Sites** - On 9/13, EPA and the Louisiana Department of Environmental Quality (LDEQ) sent teams to conduct reconnaissance at the four accessible National Priority List (NPL) sites. In addition, EPA has done an overflight assessment of the 5<sup>th</sup> site, since it is currently under water. EPA is also in the process of working with the states to assess 9 NPL sites in the hurricane affected areas of MS and AL.

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**Environmental Protection Agency**

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9/18/05 3:45 pm

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**External Actions**

**EPA-CDC Report** – EPA and the Centers for Disease Control and Prevention (CDC) formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the City of New Orleans. The initial Environmental Health Needs & Habitability Assessment issued September 17, 2005, identifies a number of barriers to be overcome and critical decisions to be made prior to reinhabiting New Orleans. The report is available on the EPA web site at [http://www.epa.gov/katrina/reports/envneeds\\_hab\\_assessment.html](http://www.epa.gov/katrina/reports/envneeds_hab_assessment.html)

**Air Monitoring** – On 9/16, EPA posted results of air screening samples collected by Trace Atmospheric Gas Analyzer (TAGA) buses on 9/12-13 from multiple locations in New Orleans. The screening results indicated that chemical concentrations in most areas are below Agency for Toxic Substances and Disease Registry (ATSDR) health standards of concern. The low level of volatile pollutants is not surprising as contaminants may be bound to the sediment. Monitoring data directly around the Murphy Oil spill revealed some slightly elevated levels of benzene and toluene that are associated with the petroleum release. Long-term exposure (a year or longer) at the levels measured would be required for health effects to be of concern.

**Drinking Water Assessment** – In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. As of 9/17, EPA has determined that 498 of these facilities are operational, 26 are operating on a boil water notice and 159 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,139 of these facilities are operational, 181 are operating on a boil water notice and 48 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that all 72 of these facilities are operational. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Wastewater** – In the LA affected area, there are a total of 122 Public Owned Treatment Works (POTW). As of 9/17, EPA has determined that 86 of these facilities are operational and 36 facilities are either not operating or their status is unknown. In the MS affected area, there are a total of 115 POTW. EPA has determined that 111 of these facilities are operational and 4 facilities are either not operating or their status is unknown. In the AL affected area, only 1 facility is not operating with 7 others having operational difficulties. It should be noted that “operational” facilities may still be in need of repair or reconstruction.

**Debris Assessment and Collection** – EPA teams continue collection of household hazardous wastes (HHW) and orphan containers. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. As of 9/16, EPA has collected 26,656 HHW/orphan containers throughout the affected region.

**Sediment Sampling** – On 9/16, EPA released preliminary results of initial sediment sampling from New Orleans and recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils. In the event contact occurs, EPA and the Centers for Disease Control (CDC) strongly advise the use of soap and water, if available, to clean the exposed areas, and the removal of contaminated clothing.

**Gulf/Mississippi Water Sampling** – EPA’s ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality (LEDQ), EPA’s airplane ASPECT has conducted numerous flights to obtain environmental screening data. Results of this surveillance were posted

on the EPA website 9/14. Compounds identified were not found to be at levels exceeding OSHA standards with one exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel.

**Superfund Sites** - On 9/13, EPA and the Louisiana Department of Environmental Quality (LDEQ) sent teams to conduct reconnaissance at the four accessible National Priority List (NPL) sites. In addition, EPA has done an overflight assessment of the 5<sup>th</sup> site, since it is currently under water. EPA is also in the process of working with the states to assess 9 NPL sites in the hurricane affected areas of MS and AL.

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**Environmental Protection Agency**

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9/16/05 3:00 PM

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**Sediment Sampling** – On 9/16, EPA released preliminary results of initial sediment sampling from New Orleans and recommended avoiding all contact with the sediment, where possible, due to the presence of E. coli and fuel oils.

**Gulf/Mississippi Water Sampling** – EPA's ocean vessel, the Bold, is expected to be deployed 9/26 on a mission to survey the waters of the Mississippi Sound and the Gulf of Mexico in the plume of the Mississippi River. The surveys will take about three weeks to complete.

**Drinking Water Assessment** – In the LA affected area, there are a total of 683 drinking water facilities that served approximately 2.8 million people. EPA has determined that 498 of these facilities are operational and meeting EPA standards, 26 are operating on a boil water notice and 159 are either inoperable or their status is unknown. In the MS affected area, there are a total of 1,368 drinking water facilities that served approximately 3,219,690 people. EPA has determined that 1,073 of these facilities are operational and meeting EPA standards, 231 are operating on a boil water notice and 64 are either inoperable or their status is unknown. In the AL affected area, there are a total of 72 drinking water facilities that served approximately 960,682 people. EPA has determined that 71 of these facilities are operational and meeting EPA standards, 1 is operating on a boil notice.

**Debris Assessment and Collection** - EPA teams continue collection of household hazardous wastes (HHW) and orphan containers. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. EPA has collected 20,934 HHW/orphan containers throughout the affected region.

**Public Advisory** – On 9/14, EPA released a public advisory warning of potential environmental health hazards when returning to homes and businesses after Hurricane Katrina.

**Response to Oil Spills** - There have been 5 major oil spills in the New Orleans area to date. EPA continues to assess the situations as it becomes aware. On 9/12, EPA sampling teams collected 3 sediment environmental samples and the Trace Atmospheric Gas Analyzer (TAGA) bus conducted air sampling at the Murphy oil spill area.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality, EPA's airplane ASPECT has flown 15 flights to obtain environmental screening data. Results of this surveillance were posted on the EPA website 9/14. Compounds identified were not found to be at levels exceeding OSHA standards with one exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel.

**Fuel Waivers** – On 9/13, EPA issued a second, temporary waiver of highway diesel fuel sulfur requirements through 10/5 for states that continue to be affected by disruptions to the fuel production and distribution system caused by Hurricane Katrina. This action will allow diesel fuel normally used in off-road equipment to be used in highway vehicles in those impacted states. The states affected by the second waiver of highway diesel requirements are: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, West Virginia, Virginia, North Carolina, South Carolina, Georgia, New Mexico, Texas, Louisiana, Mississippi, Alabama, Arkansas, Florida, Tennessee and the District of Columbia. In addition, EPA waived the federal enforceability of the summer grade gasoline required under state law in California, Eastern Texas and Phoenix, AZ. On 8/31, EPA waived the federal requirement for summer grade gasoline nationwide. Under normal circumstances that requirement ends in all parts of the country on 9/15, except for the three areas mentioned above which, under state laws, extend the requirement until 9/30 (Phoenix), 10/1 (Texas) and 10/1 (California). The three states have requested that EPA waive federal enforceability of these requirements.

**Air Monitoring** – 2 EPA Trace Atmospheric Gas Analyzer (TAGA) buses continue to perform air monitoring in New Orleans area.

**Flood Water Analysis-** On 9/14, in coordination with the Louisiana Department of Environmental Quality, EPA posted flood water sampling data for chemicals from 9/4-6. The data has been reviewed and validated through a quality assurance process to ensure scientific accuracy. Hexavalent chromium and arsenic, in addition to lead which was previously detected on 9/3, were detected in the water. Arsenic and lead were found at levels which exceeded EPA drinking water standards. These compounds would pose a risk to children only if a child were to drink a liter of flood water a day. Long-term exposure (a year or longer) to arsenic would be required before health effects would be expected to occur. Thallium was detected at one sampling location and while levels are slightly elevated, they are 10 times lower than levels at which there would be a health effect.

The 9/5 data is currently undergoing review and validation. The data will be released once this process is complete.

Flood water sampling data for biological pathogens from 9/6-10 have also been posted for public review. E. coli levels are still greatly elevated and remain much higher than EPA's recommended levels for contact. The public and emergency responders should continue to avoid contact with flood water when possible. If contact occurs, EPA strongly advises the use of soap and water to clean areas if available.

**Superfund Sites** - On 9/13, EPA and the Louisiana Department of Environmental Quality (LDEQ) sent teams to conduct reconnaissance at the four accessible National Priority List (NPL) sites. In addition, EPA has done an overflight assessment of the 5<sup>th</sup> site, since it is currently under water. EPA is also in the process of working with the states to assess 9 NPL sites in the hurricane affected areas of MS and AL.

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**Environmental Protection Agency**

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9/14/05 11:00 AM

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, under the National Response Plan, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**Public Advisory** – On 9/14, EPA released a public advisory warning of potential environmental health hazards when returning to homes and businesses after Hurricane Katrina.

**Response to Releases**- To date, EPA and Coast Guard have jointly received 396 notifications from the National Response Center (NRC) of potential oil and hazardous substance releases. The NRC has a searchable database to look up reports by city, state, and date. The website is [www.nrc.uscg.mil](http://www.nrc.uscg.mil). The breakdown by state is:

Alabama - 36  
Louisiana - 322  
Mississippi - 28

However, EPA is not waiting for facilities to report incidents. Instead, the Agency is proactively sending out teams and performing overflights. More than 282 emergency responses for hazardous materials releases have been conducted by EPA and Coast Guard in Region 4. Thus far, 605 sites have been assessed and 164 response actions have been taken in Region 6.

**Response to Oil Spills**- There have been 5 major oil spills in the New Orleans area to date. EPA continues to assess the situations as it becomes aware. On 9/12, EPA sampling teams collected 3 sediment environmental samples and Trace Atmospheric Gas Analyzer (TAGA) buses conducted air sampling at the Murphy oil spill area.

**Debris Assessment and Collection**: EPA teams continue collection of household hazardous wastes and orphan containers. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. EPA has recovered more than 4000 orphan containers, including 4 chlorine tanks.

**Drinking Water Assessment** – EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. In Louisiana, EPA sent teams to conduct drinking water assessments and provide technical assistance. To date, they have conducted 28 drinking water assessments and provided technical assistance at 14 public water systems. A total of 476 systems have been logged to date. In Mississippi and Alabama, EPA is providing technical assistance to states and localities as well as conducting resource needs analyses. The total number of systems that remain affected is estimated to be: 1 in AL, 391 in MS, and 606 in LA. EPA has two mobile laboratories in MS and two in LA.

**Air Surveillance** – In coordination with the Louisiana Department of Environmental Quality, EPA's airplane ASPECT has flown 15 flights to obtain environmental screening data. These compounds were not found to be at levels exceeding OSHA standards with one exception. In this instance, the detection was reported to EPA responders on the ground. The responders located the source, a 55-gallon drum containing 4 inches of Chloro Acetic Acid. The drum was secured by EPA response personnel. On 9/14, the results were posted on the website.

**Flood Water Analysis**- On 9/14, in coordination with the Louisiana Department of Environmental Quality, EPA posted flood water sampling data for chemicals from 9/4-6. The data has been reviewed and validated through a quality assurance process to ensure scientific accuracy. Hexavalent chromium and arsenic, in addition to lead which was previously detected on 9/3, were detected at levels which exceeded EPA drinking water standards. These compounds would pose a risk to children only if a child were to drink a liter of flood water a day. Long-term exposure (a year or longer) to arsenic would be required before health effects would be expected to occur. Thallium was detected at one sampling location and while levels are slightly elevated, they are 10 times lower than levels at which there would be a health effect.

The 9/5 data is currently undergoing review and validation. The data will be released once this process is complete.

Flood water sampling data for biological pathogens from 9/6-10 have also been posted for public review. E. coli levels are still greatly elevated and remain much higher than EPA's recommended levels for contact. The public and emergency responders should continue to avoid contact with flood water when possible. If contact occurs, EPA strongly advises the use of soap and water to clean areas if available.

**Superfund Sites:** On 9/13 EPA and the Louisiana Department of Environmental Quality (LDEQ) sent teams to conduct in-depth reconnaissance at the four accessible National Priority list sites. EPA will do an overflight assessment of the 5<sup>th</sup> site, since it is currently under water.

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**Environmental Protection Agency**

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9/13/05 4:30 PM

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, under the NRP, EPA serves as the primary agency for coordinating the federal response to releases of oil and hazardous materials. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**External Actions**

**Superfund Sites** – On 9/13, EPA and the Louisiana Department of Environmental Quality (LDEQ) plan to send teams to conduct in-depth reconnaissance at the four accessible National Priorities List sites which are Madisonville Creosote Works, Delatte Metals, Southern Ship, and Bayou Bonfouca. EPA will do over-flight assessment of the fifth site (Agriculture Street) since it is still underwater. It is unknown when the water will be pumped from the Agriculture Street site.

**Flood Water Analysis** – On 9/12 an additional 4 water samples were collected in East Orleans Parish, and 14 water samples were collected from 11 outfall locations in New Orleans. In addition, 25 sediment samples were collected from 21 locations in Orleans and St. Bernard Parish. On 9/9-9/11, EPA, in coordination with the Louisiana Department of Environmental Quality, posted data from New Orleans flood water samples of chemical and biological analysis which was validated through a quality assurance process to ensure scientific accuracy. The results show the public and emergency responders should avoid contact with the standing water and are publicly available at the EPA website - <http://www.epa.gov/katrina/testresults/index.html>. Daily sampling is ongoing and EPA, in coordination with federal, state and local agencies, will release data as it becomes available.

**Public Advisories** – On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Recovery** – EPA discontinued search and rescue operations in LA on 9/9 to focus on environmental response activities. Approximately, 793 rescues were made by EPA in LA.

**Drinking Water Assessment** – EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 1 in AL, 391 in MS, and 517 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** – EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. No problems reported for wastewater systems in AL.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) continues to be used to assess spills and chemical releases. Current plans are being developed for using this aircraft to conduct radiological surveys, if necessary.

**Air Monitoring** – Initial air screening is being performed by the EPA Trace Atmospheric Gas Analyzer (TAGA) buses. Two TAGA buses were deployed to New Orleans, LA.

**Incident Management Team** – On 9/6, EPA personnel staffing of a second full Incident Management Team (IMT) began mobilization to LA. On 9/2 EPA deployed a 17 person IMT to Baton Rouge to integrate with LA officials and manage EPA's field operations.

**Peer Support & Critical Incident Stress Management Team (CISM)** – EPA has deployed CISM team members to Baton Rouge, LA and Jackson, MS, to consult with all EPA staff conducting field operations in areas impacted by the hurricane.



**Fuel Waivers** – On 9/9, EPA extended a limited waiver from the reformulated gasoline (RFG) requirement for gasoline sold in the Richmond, VA, metropolitan area through 9/23. In consultation with DOE, we are closely monitoring gasoline supplies as we consider requests for waivers in other areas. On 9/9, EPA extended Georgia's request to waive its state sulfur requirement through 10/5 which required clean burning gasoline to be sold in the 45-county area of Atlanta. On 8/31, to alleviate possible fuel shortages across the country and to help meet emergency demand, EPA granted a nationwide fuel waiver that allows refiners, importers, distributors, carriers and retail outlets to supply gasoline and diesel fuels that do not meet standards for emissions. The temporary waiver is in effect through 9/15.

**Hazardous Waste Disposal** – EPA teams continue collection of household hazardous wastes and orphan containers. In addition, EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** –EPA will be providing environmental guidelines for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

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**Environmental Protection Agency**

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9/12/05 3:00 PM

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, EPA serves as the lead Agency for the cleanup of hazardous materials, including oil and gasoline. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**External Actions**

**Flood Water Analysis** -- On 9/9-9/11, EPA, in coordination with the Louisiana Department of Environmental Quality, posted data from New Orleans flood water samples of chemical and biological analysis which was validated through a quality assurance process to ensure scientific accuracy. The results show the public and emergency responders should avoid contact with the standing water and are publicly available at the EPA website - <http://www.epa.gov/katrina/testresults/index.html>. Daily sampling is ongoing and EPA, in coordination with federal, state and local agencies, will release data as it becomes available. On 9/7, Administrator Johnson released preliminary sampling results at a news conference.

**Public Advisories** -- On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Recovery** -- EPA discontinued search and rescue operations in LA on 9/9 to focus on environmental response activities. Approximately, 793 rescues were made by EPA in LA.

**Drinking Water Assessment** -- EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 1 in AL, 390 in MS, and 468 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** -- EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) continues to be used to assess spills and chemical releases. Current plans are being developed for using this aircraft to conduct radiological surveys, if necessary.

**Air Monitoring** -- Initial air screening is being performed by the EPA Trace Atmospheric Gas Analyzer (TAGA) buses. Two TAGA buses were deployed and arrived in the area on 9/11.

**Incident Management Team** -- On 9/6, EPA personnel staffing of a second full Incident Management Team (IMT) began mobilization to LA. On 9/2 EPA deployed a 17 person IMT to Baton Rouge to integrate with LA officials and manage EPA's field operations.

**Peer Support & Critical Incident Stress Management Team (CISM)** -- EPA has deployed CISM team members to Baton Rouge, LA and Jackson, MS, to consult with all EPA staff conducting field operations in areas impacted by the hurricane.

**Fuel Waivers** -- On 9/9, EPA extended a limited waiver from the reformulated gasoline (RFG) requirement for gasoline sold in the Richmond, VA, metropolitan area through 9/23. In consultation with DOE, we are closely monitoring gasoline supplies as we consider requests for waivers in other areas. On 9/9, EPA extended Georgia's request to waive its state sulfur requirement through 10/5 which required clean burning gasoline to be sold in the 45-county area of Atlanta. On 8/31, to alleviate possible fuel shortages across the country and to help meet emergency demand, EPA granted a nationwide fuel waiver that allows refiners, importers, distributors, carriers and retail outlets to supply gasoline and diesel fuels that do not meet standards for emissions. The temporary waiver is in effect through 9/15.

**Hazardous Waste Disposal** – On 9/11, EPA began setting up household hazardous waste collection centers for each affected Parish in LA. EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** –EPA will be providing environmental guidelines for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

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**Environmental Protection Agency**

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9/12/05 9:00 AM

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**External Actions**

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**Public Advisories** -- On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Recovery** -- EPA discontinued search and rescue operations in LA on 9/9 to focus on environmental response activities. Approximately, 793 rescues were made by EPA in LA.

**Drinking Water Assessment** -- EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 1 in AL, 390 in MS, and 468 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** -- EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) continues to be used to assess spills and chemical releases. Current plans are being developed for using this aircraft to conduct radiological surveys, *if necessary*.

**Air Monitoring** -- Initial air screening is being performed by the EPA Trace Atmospheric Gas Analyzer (TAGA) buses. Two TAGA buses were deployed and arrived in the area on 9/11.

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**Peer Support & Critical Incident Stress Management Team (CISM)** -- EPA has deployed CISM team members to Baton Rouge, LA and Jackson, MS to consult with all EPA staff conducting field operations in areas impacted by the hurricane.

**Fuel Waivers** -- On 9/9, EPA extended a limited waiver from the reformulated gasoline (RFG) requirement for gasoline sold in the Richmond, VA, metropolitan area through 9/23. In consultation with DOE, we are closely monitoring gasoline supplies as we consider requests for waivers in other areas. On 9/9, EPA extended Georgia's request to waive its state sulfur requirement through 10/5 which required clean burning gasoline to be sold in the 45-county area of Atlanta. On 8/31, to alleviate possible fuel shortages across the country and to help meet emergency demand, EPA granted a

nationwide fuel waiver that allows refiners, importers, distributors, carriers and retail outlets to supply gasoline and diesel fuels that do not meet standards for emissions. The temporary waiver is in effect through 9/15.

**Hazardous Waste Disposal** – On 9/10, EPA will begin setting up household hazardous waste collection centers for each affected Parish in LA. EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** –EPA will be providing environmental guidelines for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

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**Environmental Protection Agency**

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9/11/05 2:57 PM

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**Flood Water Analysis** – On 9/11/05 Data posted on web site from New Orleans flood water chemical samples collected from 6 locations on September 3. The data have been reviewed and validated through a quality assurance process to ensure scientific accuracy. Chemical results indicate that the concentration of lead exceeded drinking water action levels. These levels are of a concern if a child ingests large amounts of the flood water. Based on the chemical analyses and the presence of high levels of E. Coli, EPA and CDC provided health guidance on September 7 to avoid human contact with the flood water when possible. EPA in coordination with federal, state and local agencies will continue to release data as it becomes available.

On 9/9, EPA in coordination with the Louisiana Department of Environmental Quality posted data from New Orleans flood water samples collected from 12 locations in the September 3-5 time period. The data has been reviewed and validated through a quality assurance process to ensure scientific accuracy. The results show the public and emergency responders should avoid contact with the standing water and are publicly available at the EPA website - <http://www.epa.gov/katrina/testresults/index.html>. Daily sampling is ongoing and EPA, in coordination with federal, state and local agencies will continue to release data as it becomes available. On 9/7, Administrator Johnson released the initial sampling results at a news conference.

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**Drinking Water Assessment** – EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 1 in AL, 433 in MS, and 468 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** – EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) is being used to assess spills and chemical releases. On 9/7, ASPECT conducted overflights of railroad yards. There are plans being developed for using this aircraft to conduct radiological surveys if proven necessary.

**Air Monitoring** – Initial air screening is expected to begin this week using the EPA Trace Atmospheric Gas Analyzer (TAGA) buses.

**Incident Management Team** – On 9/6, EPA personnel staffing of a second full Incident Management Team (IMT) began mobilization to LA. On 9/2 EPA deployed a 17 person IMT to Baton Rouge to integrate with LA officials and manage EPA's field operations.

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**Environmental Protection Agency**

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9/11/05 8:57 AM

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**Wastewater Treatment Facilities** – EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

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**Hazardous Waste Disposal** – On 9/10, EPA will begin setting up household hazardous waste collection centers for each affected Parish in LA. EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other



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**Environmental Protection Agency**

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9/10/05 9:22 AM

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**Public Advisories** -- On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Recovery** -- EPA discontinued search and rescue operations in LA on 9/9 to focus on environmental response activities. Approximately, 793 rescues have been made by EPA in LA.

**Drinking Water Assessment** -- EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 4 in AL, 433 in MS, and 468 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** -- EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) is being used to assess spills and chemical releases. On 9/7, ASPECT conducted overflights of railroad yards. Current plans are being developed for using this aircraft to conduct radiological surveys. These surveys will be conducted due to concerns over potential radiological sources from universities and hospitals. EPA and state officials continue to collect air quality information from daily aerial helicopter inspections of facilities. On-the-ground inspections of these facilities will provide additional information in the coming weeks. Air assessments of spills and chemicals releases in New Orleans and surrounding area continue.

**Incident Management Team** -- On 9/6, EPA personnel staffing of a second full Incident Management Team (IMT) began mobilization to LA. On 9/2 EPA deployed a 17 person IMT to Baton Rouge to integrate with LA officials and manage EPA's field operations.

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**Hazardous Waste Disposal** – On 9/10, EPA will begin setting up household hazardous waste collection centers for each affected Parish in LA. EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** – EPA will be assessing environmentally safe clearance standards for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

**Emergency Call Center** – EPA expects to deploy 30-50 personnel from the Region 5 (Chicago) office to assist staffing of the FEMA Emergency Call Center that will register people who are applying for federal assistance in the aftermath of Hurricane Katrina. Training for the call center volunteers began on September 8th.

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**Environmental Protection Agency**

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9/9/05 2:45 PM

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**Public Advisories** – On 9/9, EPA will issue a public advisory on indoor air quality problems that may be encountered during or after flood cleanup. These potential health hazards could include carbon monoxide poisoning, microbial growth that can cause disease, and the misuse of cleaners and disinfectants which can cause toxic fumes. On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Flood Water Analysis** – At a news conference with CDC on 9/7, Administrator Johnson released initial sampling results of New Orleans flood waters from six locations. Preliminary information indicates that counts for E. Coli in sampled areas greatly exceed EPA's recommended levels for contact. Also lead concentrations exceeded drinking water action levels which would be a concern if the flood water was a child's source of drinking water. Given these preliminary results, emergency response personnel and the public should avoid direct contact with standing water when possible. Collection of flood water samples began 9/3 in downtown New Orleans. Samples were shipped to a Houston lab and a local lab in Lafayette, LA for analysis. Daily sampling is ongoing.

**Recovery** – EPA will discontinue search and rescue operations in LA effective 9/9 to focus on environmental response activities. Approximately, 793 rescues have been made by EPA in LA. Forty-two EPA water craft are currently available for rescue and environmental assessment efforts.

**Drinking Water Assessment** – EPA continues assessment of damage to local drinking systems and providing technical assistance to help restore service in AL, MS, and LA. Many systems were disabled or impaired by loss of electrical power, and some are now operating under boiled water notices. The total number of systems that remain affected is 73 in AL, 555 in MS, and 469 in LA. EPA has two mobile laboratories in MS and two in LA.

**Wastewater Treatment Facilities** – EPA continues to assess wastewater treatment facilities in LA and MS. EPA estimates the number of wastewater treatment facilities affected is now 114 in LA and 9 in MS. All wastewater systems in AL are operating normally.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) is being used to assess spills and chemical releases. On 9/7, ASPECT conducted overflights of railroad yards. Current plans are being developed for using this aircraft to conduct radiological surveys. These surveys will be conducted due to concerns over potential radiological sources from universities and hospitals. EPA and state officials continue to collect air quality information from daily aerial helicopter inspections of facilities. On-the-ground inspections of these facilities will provide additional information in the coming weeks. Air assessments of spills and chemicals releases in New Orleans and surrounding area continue.

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**Fuel Waivers** – On 9/2, EPA granted a limited waiver from the reformulated gasoline (RFG) requirement for gasoline sold in the Richmond, VA, metropolitan area through 9/9. In consultation with DOE, we are closely monitoring gasoline supplies as we consider requests for waivers in other areas. On 9/1, EPA granted Georgia's request to waive its state sulfur requirement through 9/15 which required clean burning gasoline to be sold in the 45-county area of Atlanta. On 8/31, to alleviate possible fuel shortages across the country and to help meet emergency demand, EPA granted a

nationwide fuel waiver that allows refiners, importers, distributors, carriers and retail outlets to supply gasoline and diesel fuels that do not meet standards for emissions. The temporary waiver is in effect through 9/15.

**Hazardous Waste Disposal** - EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. EPA will commence some household hazardous waste collection in LA. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** – EPA will be assessing environmentally safe clearance standards for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

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**Environmental Protection Agency**

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9/8/05 3:00 pm

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**External Actions**

**Flood Water Analysis** – At a news conference with CDC on 9/7, Administrator Johnson released initial sampling results of New Orleans flood waters from six locations. Preliminary information indicates that counts for E. Coli in sampled areas greatly exceed EPA's recommended levels for contact. Also lead concentrations exceeded drinking water action levels which would be a concern if the flood water was a child's source of drinking water. Given these preliminary results, emergency response personnel and the public should avoid direct contact with standing water when possible. Collection of flood water samples began 9/3 in downtown New Orleans. Samples were shipped to a Houston lab and a local lab in Lafayette, LA for analysis. Daily sampling is ongoing.

**Recovery** – EPA anticipates conducting limited search and rescue operations in LA on 9/8. Food and water were distributed and an additional 12 people were rescued. Approximately, 787 rescues have been made by EPA in LA. Thirty-three EPA water craft are currently available for rescue and environmental assessment efforts. EPA will discontinue search and rescue operations in LA effective 9/9 to focus on environmental response activities.

**Public Advisories** – On 9/6, EPA and HHS issued an advisory cautioning the public and all responders about the possible hazards of flood waters due to potentially elevated levels of contamination associated with raw sewage and other hazardous materials. On 9/4, EPA issued an advisory to the public urging caution when disposing of household hazardous waste and asbestos-containing debris from storm-damaged homes and other buildings.

**Drinking Water Assessment** – EPA estimates the number of water systems affected is 73 in AL, 555 in MS and 469 in LA. In AL, many water systems were disabled or impaired by loss of electrical power. Three systems in AL currently have boil water advisories. Two of these systems are awaiting sample results. The other system is running on emergency power. EPA continues its assessment of damage to local drinking water systems in MS, and provides technical assistance to help restore safe drinking water to those systems. EPA has two mobile laboratories in MS assisting the state Department of Public Health in drinking water analysis. The mobile labs became operational on 9/8. Boil water notices issued have increased from 404 to 464 water systems in MS. Samples from these systems will be analyzed for total fecal coliform bacteria before the systems restore service. EPA is assisting the LA Department of Health and Hospitals in assessing drinking water and has deployed 35 more EPA personnel to LA this week. There are approximately 378 drinking water systems that are not in operation in LA with another 48 systems on a boil water notice. In LA, one EPA mobile lab is currently testing drinking water samples and providing analytical data. An additional mobile lab is expected to arrive this week in LA.

**Wastewater Treatment Facilities** – EPA continues to assess wastewater treatment facilities in LA, MS and AL. EPA estimates the number of wastewater treatment facilities affected is now 13 in AL, 114 in LA and 45 in MS.

**Air Surveillance** - EPA's environmental surveillance aircraft (ASPECT) is being used to assess spills and chemical releases. On 9/7, ASPECT conducted overflights of railroad yards. Current plans are being developed for using this aircraft to conduct radiological surveys. These surveys will be conducted due to concerns over potential radiological sources from universities and hospitals. EPA and state officials continue to collect air quality information from daily aerial helicopter inspections of facilities. On-the-ground inspections of these facilities will provide additional information in the coming weeks. Air assessments of spills and chemicals releases in New Orleans and surrounding area continue.

**Incident Management Team** – On 9/6, EPA personnel staffing of a second full Incident Management Team (IMT) began mobilization to LA. On 9/2 EPA deployed a 17 person IMT to Baton Rouge to integrate with LA officials and manage EPA's field operations.

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**Hazardous Waste Disposal** - EPA personnel continue to offer technical assistance in the disposal of hazardous waste and other debris left behind by the storm. Teams are working closely with the Coast Guard to conduct assessments of potential oil spills and chemical releases caused by the hurricane.

**Technical Expertise** – EPA will be assessing environmentally safe clearance standards for residences and commercial buildings. EPA has practical and scientific expertise in the environmental health hazards caused by flood waters, especially the effects of molds and mildew, and in the disposal of household hazardous waste and asbestos-containing materials from storm-damaged buildings.

**Emergency Call Center** – EPA expects to deploy 30-50 personnel from the Region 5 (Chicago) office to assist staffing of the FEMA Emergency Call Center that will register people who are applying for federal assistance in the aftermath of Hurricane Katrina. The call center is anticipated to be operational on September 8th.

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**Environmental Protection Agency**

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9/8/05 9:00 am

EPA emergency response personnel are working in partnership with FEMA to help assess the damage and prepare for cleanup from Katrina. In emergency situations such as this, EPA serves as the lead Agency for the cleanup of hazardous materials, including oil and gasoline. Our national and regional Emergency Operations Centers are activated 24 hours a day.

**External Actions**

**Flood Water Analysis** – At a news conference with CDC on 9/7, Administrator Johnson released initial sampling results of New Orleans flood waters from six locations. Preliminary information indicates that counts for E. Coli in sampled areas greatly exceed EPA's recommended levels for contact. Also lead concentrations exceeded drinking water action levels which would be a concern if the flood water was a child's source of drinking water. Given these preliminary results, emergency response personnel and the public should avoid direct contact with standing water when possible. Collection of flood water samples began 9/3 in downtown New Orleans. Samples were shipped to a Houston lab and a local lab in Lafayette, LA for analysis. Daily sampling is ongoing.

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**Environmental Protection Agency**

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9/7/05 3:58 pm

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**EXTERNAL -- Environmental Protection Agency**

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9/7/05 8:00 am

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