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BEFORE THE
SUBCOMMITTEE ON INTERIOR AND ENVIRONMENT
COMMITTEE ON APPROPRIATIONS
UNITED STATES HOUSE OF REPRESENTATIVES

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Chairman Moran, Ranking Member Simpson, and members of the Subcommittee, thank you for the opportunity to testify today about oil spill prevention and response measures and natural resource impacts. The U.S. Environmental Protection Agency (EPA), in coordination with our federal, state, and local partners, is committed to protecting Gulf Coast communities from the adverse environmental effects of the Deepwater Horizon oil spill. My testimony today will provide you with an overview of EPA's role and activities in the affected Gulf Coast region following the April 20, 2010 Deepwater Horizon mobile offshore drilling unit explosion and resulting oil spill as well as a summary of our primary environmental concerns. I also want to express my condolences to the families of those who lost their lives and those injured in the explosion and sinking of the Deepwater Horizon.

BACKGROUND

Administration efforts have focused on responding to the disaster and ensuring that the responsible parties stop the discharge, remove the oil, and pay for all costs and damages. EPA is a key part of those efforts. EPA's Oil Spill Program focuses on activities to prevent, prepare for and respond to oil spills from a wide variety of facilities that handle, store, or use various types

of oil. EPA regulates approximately 620,000 of these facilities, including oil production, bulk oil storage, and oil refinery facilities that store or use oil in above-ground and certain below-ground storage tanks. Additionally, EPA is the principal federal response agency for oil spills in the inland zone, including inland waters. Such inland zone oil spills may come from, oil pipeline ruptures, tank spills, and other sources.

EPA shares the responsibility of responding to oil spills with the U.S. Coast Guard (USCG). Further, we share the responsibility for prevention and preparedness with USCG and several other federal agencies. The USCG leads the response to spills that occur along the coast of the United States, or in the coastal zone, and EPA leads the response to spills that occur in the internal United States, or the inland zones. The exact lines between the inland and coastal zones are determined by Regional Response Teams (RRTs) and established by Memoranda of Agreement (MOAs) between regional EPA and USCG offices. EPA and USCG have a strong relationship and work closely on oil spill response activities regardless of where the spill occurs.

EPA'S OIL SPILL RESPONSE PROGRAM

Each year, billions of gallons of petroleum and other oils are transported and stored throughout the country, creating a significant potential for oil spills and serious threats to human health and the environment. Approximately 20,000 oil spills are reported each year to the federal government. While the severity of these spill reports varies widely, EPA evaluates as many as 13,000 spills to determine if its assistance is required. Usually, EPA either manages the oil spill response or oversees the response efforts of private parties at approximately 300 spills per year. After an oil spill occurs, EPA frequently provides technical assistance which may include air and water monitoring support, mobilizing our On-Scene Coordinators (OSCs) and

EPA's Special Teams including the Environmental Response Team and the National Decontamination Team to assist with the response. The Special Teams are comprised of highly-skilled environmental experts and utilize modern, sophisticated, and innovative technologies for oil spill response.

As the manager of the Oil Spill Liability Trust Fund (OSLTF), USCG reimburses EPA for response from the OSLTF under Pollution Removal Funding Authorizations. To date, EPA has received a total of $7.2 million in reimbursable funding authority from the USCG for the support and technical assistance being provided by EPA's Regions 4 and 6 as part of the RRTs for the Gulf States. EPA has and will continue to do all that is necessary to respond to this emergency including standing up the Emergency Operations Center from EPA Headquarters to provide operational support on resolving scientific and policy issues associated with use of dispersants, interpreting analytical data from the field, working closely with Regions 4 and 6 on waste management disposal, as well as interagency coordination. EPA will track all funds spent related to this oil spill for recovery from responsible parties. The Administration is committed to recovering the costs incurred for the removal of the oil and the damages caused by this catastrophe from those who are responsible and ensuring that the American people do not pay for any of the costs and damages for which others are responsible.

RESEARCH AND DEVELOPMENT

Historically, EPA has had a modest oil spill research and development program. Events of the past several weeks associated with the Deepwater Horizon oil spill have made it evident that this modest investment must increase to address the uncertainties that have arisen. The Administration has requested supplemental funds for dispersant research associated with the

Deepwater Horizon oil spill. If appropriated, EPA plans to engage institutions who have the knowledge and expertise to assist the Agency. The $2.0 million requested by the President, will support research that will begin to provide a greater understanding of the short and long term implications to the environment and public health associated with the spill and the application, surface and undersea, of dispersants. We will also further our research efforts to include innovative and expansive approaches to spill remediation.

The President's request represents an important step forward to improve our understanding of the impacts and implications of the use of dispersants and exposure to the dispersed oil and the potential impact on the environment and human health. EPA intends to pursue research over time which will address the mechanisms of environmental fate, effects, and transport of the application of dispersants on released crude oil. This will be conducted by both assessing the risks to human health from exposure to chemical dispersants and chemically-dispersed oil mixtures through direct and indirect exposure and increasing our understanding of chemical dispersants and dispersed oil, including its toxicity over a broad range of aquatic and terrestrial ecosystems and species. EPA will also collaborate with other federal agencies to study the environmental and human health impacts of dispersants and chemically-dispersed oil. This research will address the mechanisms of environmental fate, effects and transport of released crude oil and the application of dispersant.

EPA'S OIL SPILL RESPONSE COORDINATION WITH THE USCG

The National Contingency Plan (NCP) is the federal government's blueprint for responding to both oil spills and hazardous substance releases. Additionally, it provides the federal government with a framework for notification, communication, and responsibility for oil

spill response. The NCP established the National Response Team (NRT), comprised of fifteen federal agencies, to assist responders by formulating policies, providing information, technical advice, and access to resources and equipment for preparedness and response to oil spills and hazardous substance releases. EPA serves as chair of the NRT and the USCG serves as vice-chair. However, the USCG is the incident-specific Chair for the Deepwater Horizon oil spill response.

In addition to the NRT, there are thirteen RRTs, one for each of EPA's ten regional offices and one each for Alaska, the Caribbean, and the Pacific Basin. RRTs are co-chaired by each EPA Region and its USCG counterpart. The RRTs are also comprised of representatives from other federal agencies and state representation, and frequently assist the federal OSCs who lead spill response efforts. The RRTs help OSCs in their spill response decision making, and can help identify and mobilize specialized resources. For example, through the RRT, the OSC can request and receive assistance on natural resource issues from the Department of the Interior, or borrow specialized equipment from the Department of Defense. Involvement of the RRT in these response decisions and activities helps ensure efficient agency coordination while providing the OSC with the assistance necessary to conduct successful spill response actions.

Each spill has only one OSC, designated from either the USCG or the EPA. EPA is responsible for maintaining the NCP Product Schedule, which lists chemical and biological products available for federal OSCs to use in spill response and cleanup efforts. Due to the unique nature of each spill, and the potential range of impacts to natural resources, OSCs help determine which products, if any, should be used in a particular spill response. If the application of a product is pre-authorized by the RRT, then the OSC may decide to use the product in a

particular response. If the product application does not have pre-authorization from the RRT, then the OSC must consult with the RRT regarding its use.

THE DEEPWATER HORIZON OIL SPILL

On April 22, 2010, the mobile offshore drilling unit (MODU) Deepwater Horizon, owned and managed by Transocean and contracted by BP P.L.C., sank after an explosion and a severe fire. Since that time, several thousand barrels per day of crude oil is being released into the Gulf of Mexico. The USCG, as the federal On-Scene Coordinator for the oil spill response, is implementing its responsibility to lead the federal environmental response actions in the coastal zone and is overseeing all response operations, including those made by BP.

The Secretary of the Department of Homeland Security has classified this oil discharge as a Spill of National Significance (SONS) and the USCG Admiral Thad Allen has been designated the National Incident Commander (NIC). EPA has integrated some of its staff into the Unified Area Command (UAC) as well as the local incident command posts. We have developed monitoring and assessment plans for surface and subsurface dispersant application, and we are providing technical assistance, air monitoring, and water quality sampling at several locations in Louisiana, Mississippi, and Alabama to assist in the oil spill response.

Air quality monitoring

EPA responders are monitoring for particulate matter, hydrogen sulfide, and total volatile organic compounds (VOCs) associated with the oil as well as the in situ burns. We are also monitoring ozone levels and testing for specific VOCs that are present in crude oil: benzene, toluene, ethylbenzene, xylene and napthalene. We are operating a network of fixed air quality monitoring stations in the Gulf Coast region and specially deployed monitoring and sampling

equipment. In addition, EPA has deployed its twin engine aircraft, the Airborne Spectral Photometric Collection Technology (ASPECT), to detect chemical constituents associated with the oil spill, as well as to monitor for particulates over the in situ burns. We have also brought in two Trace Atmospheric Gas Analyzers (TAGA) mobile laboratory "buses" which are capable of real-time sampling and analysis, and can detect a range of chemical contaminants at very low levels. The TAGA mobile labs have specialized sampling equipment that can be used at remote locations to measure air quality. Additional response air monitoring and sampling sites have been set up by EPA response teams near Venice and Chalmette, LA, Mobile, AL and Ocean Springs, MS. In addition, we are also coordinating data collected from state monitors, and we are analyzing and tracking this information daily to note any unusual readings that might indicate changes in air quality that could trigger a call for action to protect public health.

Water quality monitoring

EPA teams are conducting surface water monitoring activities along the Gulf Coast. EPA is also collecting water quality and sediment samples in areas not yet affected by the oil release, in order to establish a data baseline. Based on the tests at the shoreline completed to date, water quality does not currently pose an increased risk to aquatic life in tested areas; however, EPA will continue to sample and test water to more fully assess water quality. We are currently developing post-impact water quality monitoring plans which will enable us to analyze water and sediment samples to detect chemicals found in oil as well as the chemical constituents of the dispersants that are being used in the oil spill response.

Use of Dispersant

When this crisis occurred, the federal OSC granted BP authorization to use approved dispersant on oil on the surface of the water in an effort to mitigate the shoreline impacts of the

oil spill on fisheries, nurseries, wetlands and other sensitive environments. The OSC's authorization includes water quality monitoring and the dispersant being applied in order to ensure the protection of the environment and public health in affected areas. Dispersants contain a mixture of chemicals, that, when applied directly to the spilled oil, can break down the oil into smaller drops that can sink below the water's surface. Dispersed oil forms a "plume" or "cloud" of oil droplets suspended in the water. The dispersed oil mixes vertically and horizontally into the water column and is rapidly diluted. Naturally occurring bacteria and other microscopic organisms' biological processes can degrade the oil droplets over time. EPA is constantly monitoring air and water quality in the Gulf Coast area to ensure the health of nearby residents in protected. The results are posted on EPA's web site as it becomes available.

Because of the magnitude of the Deepwater Horizon Oil Spill, the RRT authorized BP to conduct tests of a new approach to use dispersants underwater, at the source of the oil leaks. The test data was evaluated to determine the efficacy of subsurface application and it was determined that BP can move forward with full-scale application contingent upon following an adaptive monitoring plan. An EPA/USCG joint directive specifies requirements for BP to follow for subsurface dispersant applications and includes evaluation criteria for the RRT to shut-down subsurface application. Available data from each subsurface application is analyzed each evening jointly by EPA and the National Oceanic and Atmospheric Administration (NOAA) to determine whether subsurface dispersant application can be continued. Since the subsurface application was initiated, dissolved oxygen levels and the biological tests are within normal ranges. Initial studies indicate that the subsurface application of approximately 10,000-15,000 gallons of dispersants have the equivalent effect on the oil as the surface application of

approximately 50,000 gallons of dispersant. Thus, the subsurface application of dispersants is much more efficient and could result in far less dispersants being released into the environment.

It is important to understand that the use of dispersants has environmental trade-offs. Dispersants are generally less toxic than the oils they break down. We know that surface use of dispersants decreases the environmental risks posed by oil spills to shorelines and organisms that live in surface waters. When used this way, dispersants usually break down over the course of weeks. However, the long term effects of dispersants on aquatic life are unknown, which is why EPA and the Coast Guard are requiring BP to implement a sampling and monitoring plan. The federal oil spill response ensures that dispersant operations are constantly monitored to detect any adverse environmental effects that may outweigh the expected benefits of applying dispersants to the Deepwater Horizon oil spill.

However, with the successful use of subsurface application to date, EPA and USCG have issued an Order to BP to eliminate, if operationally possible, surface dispersant application. BP was also directed to find an alternative less toxic dispersant. BP argued that one was not available, but EPA determined that BP's analysis was insufficient. EPA is performing its own scientific verification of the data BP presented and is conducting a separate scientific analysis to determine whether a less toxic alternative is available at the needed volumes.

NEXT STEPS

The Deepwater Horizon Oil Spill is a massive and potentially unprecedented environmental disaster that has already impacted the lives and the livelihoods of countless people in the Gulf Coast region. While BP is a responsible party for this oil spill, EPA has been working alongside many federal and state agencies to implement emergency oil spill response

actions since day one. EPA's Headquarters Emergency Operations Center is fully operational and is monitoring the overall oil spill response operation.

EPA is also preparing for a potential support role in shoreline assessment and cleanup operations. EPA's support work may include continued sampling and analysis, identifying and prioritizing sensitive resources, and determining the need for cleanup and recommending cleanup methods and endpoints. We are working within the Unified Command to promote oil recovery and recycling and also to identify landfill locations for any collected oil, oil contaminated booms and other contaminated response materials. EPA, in coordination with the Gulf Coast states, will continue to provide information to both workers and the public about monitoring results and will help to address local community concerns.

CONCLUSION

EPA will continue to provide full support to the USCG and the UC, and will continue to take a proactive and robust role in monitoring, identifying, and responding to potential public health and environmental concerns. As local Gulf Coast communities assess the impact of the Deepwater Horizon oil spill on their economies, EPA, in partnership with other federal, state, and local agencies, as well as other community stakeholders, will devote its efforts necessary to assist in the oil spill response. At this time I welcome any questions you may have.