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HURRICANE HARVEY MANAGEMENT REPORT

Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources. The Senior Leadership Briefing and DHS Component Actions Reports are attached.

National Incident Management Objectives

Objective 1: Ensure that health and safety of the EPA response is considered at all times.

Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.

Objective 3: Ensure prompt review and processing of Fuel Waiver requests.

Objective 4: Prepare for and provide Rapid Assessment of industrial facilities as requested by the States or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with agencies in affected States, contact industrial sources within the impacted areas to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources along the coastal areas.

Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support State agencies in contacting drinking water and waste water systems.

Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.

Objective 7: Activate the Agency's Crisis Communication Plan to insure effective and efficient coordination of all incident communications.

Objective 8: Encourage a collaborative federalism approach, where national state and local governments interact cooperatively and collectively to solve common problems.

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Executive Summary

- On September 4th, the President approved the addition of seven more counties (Austin, Bastrop, DeWitt, Gonzales, Karnes, Lavaca, Lee) to the Disaster Declaration. This brings the total number of counties on the Presidential Disaster Declaration to 39.
- The Acting EPA Regional Administrator, the Chairman of Texas Commission on Environmental Quality (TCEQ) and Special Advisors to the Administrator met with Houston's mayor then toured three Superfund sites targeted for inspection and briefed Senator John Cornyn's office.
- At the Arkema facility, the local fire department conducted a controlled burn of the remaining six trailers. They lifted the 1.5-mile radius evacuation order on September 4th. Arkema continues to work with the local authorities to aid in returning residents affected by the evacuation order back to their homes. EPA has demobilized from the Arkema site.
- EPA continues to be embedded with response partners on teams performing Department of Water/Waste Water (DW/WW) system assessments, hazard evaluations, and container recovery operations.
- EPA continues to conduct ambient air monitoring in Houston, and is evaluating an area of potential concern associated with air pollution from a Valero facility in Houston. EPA's Trace Atmospheric Gas Analyzer (TAGA) will conduct air monitoring in southeast Houston around the Valero Refinery.
- Hurricane Harvey made landfall at 23:00 ET, August 26th, as a Category 4 storm near Rockport. Harvey was downgraded to a Category 1 with maximum sustained winds of 85 mph and located approximately 25 miles southwest of Victoria by 07:00 on August 27th moving northwest at 6 mph. Harvey stalled over southeastern TX through the middle of the week. Due to the slow motion of Harvey and a prolonged period of onshore flow, water levels remain elevated. The impacted area received more than 50 inches of precipitation, and catastrophic flooding occurred. Harvey was eventually downgraded to a tropical storm with maximum sustained winds of 45 mph.

Region 6 Significant Activities:

The Region 6 REOC is currently activated and working under a limited Emergency Support Function (ESF) 10 FEMA Mission Assignment (MA). In addition, Region 6 has received an MA to assist TX with drinking water, wastewater, and hazmat recovery operations. This MA, for almost $8.6 million, added 184 EPA and Coast guard (CG) personnel to the TCEQ Harvey response in Corpus Christi, Houston, and surrounding impacted areas. An additional MA for $20,000 has been issued to deploy EPA employees to various locations which include but are not limited to the TX EOC and the FEMA RRCC to support response operations.

Mission Assignment Number	Funding Amount	Description of Assignment
MA4332DRTX3	$8,592,000	R6 Field Ops incl. assessing drinking & waste water infrastructure, implementation of Response Manager tracking system, response to hazardous substances & oil discharges or releases.
MA4332DRTX1	$20,000	Deployment of EPA to various locations, including but not limited to TX EOC and the FEMA RRCC to support response operations.
Total Funds	**$8,612,000**	

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Number of R6 Personnel Involved:

Personnel	EPA R6 Dallas	FEMA Denton	TX SOC Austin	TCEQ Austin	Houston	Corpus Christi	Totals
R6	43	2	2	10	22	13	92
START	7		1	1	12	6	27
ERRS					7	8	15
Other Contractor	1						1
TOTAL	51	2	3	11	41	27	135

Arkema Chemical:

Arkema Chemical Facility located in Crosby is a Risk Management Plan (RMP) facility. It manufactures liquid organic peroxides. On August 31st, at approximately 03:45 ET, two incidents of trailer fires were reported at the Arkema facility. Harris County Office of Homeland Security and Emergency Management conducted air monitoring in the area. Four air monitoring teams from EPA, Harris County Pollution Control and Liberty County monitored around the exclusion zone. All readings were non-detect at ground levels. On September 3rd, the Crosby Volunteer Fire Department and the Harris County Fire Marshal's Office ignited the remaining peroxide trailers at the Arkema facility to eliminate the risk of additional uncontrolled events. Unified Command monitored air quality during the event.

Beaumont, TX:

As of September 4th, Beaumont's wastewater treatment plant (WWTP) is fully operational and running. All units are being powered by generator and are fully functional. The collection system has been effectively shut off due to power loss. The city is focusing the majority of its resources on the drinking water issues.

EPA has secured an operational staging area in the parking lot of the Central Mall, adjacent to the U.S. Coast Guard (USCG) Marine Safety Unit (MSU) in Port Arthur. EPA will continue to coordinate with local, state and federal response partners to plan for further assessment and potential response actions once the flood waters recede.

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EPA Headquarters Significant Activities:
The HQ EOC is activated to Level 1 in support of the Region 6 response to Tropical Storm Harvey. The HQ EOC is coordinating on several levels with Region 6 and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordinating Committee (PCC) have developed and will update senior management objectives that will form the basis of field strategy and tactics in response to Harvey.

Headquarters Mission Assignments:

Mission Assignment Number	Funding Amount	Description of Assignment
MA4332DRTX1	$10,000	FEMA HQ ESF-10 Desk Support
4332DRTXEPA02	$40,000	FEMA HQ ESF-10 Desk Support
Total Funds	**$50, 000**	

Number of HQ Personnel Involved in the EOC:

Personnel	AO	OAR	OCFO	OCSPP	OECA	OEI	OGC	OLEM	OP	ORD	OW	Totals
Employees	1	1			1	1	1	9	1	1	1	17
Contractors						3		3				6
TOTAL	1	1			1	4	1	12	1	1	1	23

National Incident Management Team (N-IMAT):
EPA activated the N-IMAT (highly skilled response personnel from Regions 3, 4, and 5) to advise and assist R6 with response activities. On September 4th, N-IMAT arrived in Corpus Christi to receive an incident briefing from the Unified Command.

Criminal Investigation Division (CID):
EPA's Criminal Investigation Division (CID) deployed 25 special agents as a Quick Reaction Team (QRT) to south TX to support the response to Harvey. The response is managed under ESF-13. EPA's QRT is in Houston completing in-processing with ESF-13 officials and US Marshals. QRT joins over 1100 federal law enforcement officers from multiple departments and agencies in TX supporting ESF-13 missions.

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Superfund NPL Sites: EPA has conducted Rapid Response Assessments at 43 Superfund sites in the impacted areas using aerial images as well as direct contact with companies who are responsible for on-going cleanup activities. EPA has determined that 39 Superfund sites in the area do not show damage or excessive flooding associated with Harvey. EPA has also determined that four sites (Bailey Waste Disposal, San Jacinto, Triangle Chemical, and US Oil Recovery), require further inspection or recovery actions. The table below contains detailed information on the 43 sites.

Superfund Sites within Federally Declared Counties						
Hurricane Harvey Rapid Response Assessment	**Phase 1**	**Phase 2**		**Phase 3**		
	Rapid Response Assessment	**Site Inspection Needed**	**Inspected**	**Additional Response Action**	**All Phases Completed**	**County**
TEXAS						
ALCOA (Point Comfort) / LAVACA BAY	8/29/17	No			8/29/17	Calhoun
BAILEY WASTE DISPOSAL	9/1/17	Yes				Orange
BRINE SERVICE CO.	8/30/17	Yes	8/30/17	No	8/30/17	Nueces
BRIO REFINING INC.	9/1/17	No			9/1/17	Harris
CONROE CREOSOTING COMPANY	9/1/17	No			9/1/17	Montgomery
CRYSTAL CHEMICAL CO.	8/30/17	No			8/30/17	Harris
DIXIE OIL PROCESSORS INC.	9/1/17	No			9/1/17	Harris
FALCON REFINERY	8/30/17	Yes	8/30/17	No	8/30/17	San Patricio
FRENCH, LTD.	9/1/17	Yes	9/4/17	No	9/4/17	Harris
GENEVA INDUSTRIES / FUHRMANN ENERGY	9/1/17	Yes	9/3/17	No	9/3/17	Harris
GULFCO MARINE MAINTENANCE	9/1/17	Yes	9/3/17	No	9/3/17	Brazona
HARRIS (FARLEY STREET)	9/1/17	No			9/1/17	Harris
HART CREOSOTING	9/1/17	No			9/1/17	Jasper
HIGHLANDS ACID PIT	9/1/17	Yes	9/4/17	No	9/4/17	Harris
JASPER CREOSOTING	9/1/17	No			9/1/17	Harris
JONES ROAD GROUNDWATER PLUME	8/29/17	No			8/29/17	Harris
MALONE SERVICES COMPANY	9/1/17	Yes	9/4/17	No	9/4/17	Galveston
MANY DIVERSIFIED INTERESTS, INC	9/1/17	No			9/1/17	Harris
MOTCO, INC.	8/31/17	No			8/31/17	Galveston
NORTH CAVALCADE STREET	8/29/17	No			8/29/17	Harris
PALMER BARGE LINE	9/1/17	No			9/1/17	Jefferson

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PATRICK BAYOU	9/1/17	Yes	9/4/17	No	9/4/17	Harris
PETRO-CHEMICAL SYSTEMS, INC. (Turtle Bayou)	9/1/17	Yes	9/4/17	No	9/4/17	Liberty
SAN JACINTO RIVER WASTE PITS	9/1/17	Yes	9/3/17	Yes		Harris
SHERIDAN DISPOSAL	9/3/17	No			9/317	Waller
SIKES DISPOSAL PITS	8/29/17	No			8/29/17	Harris
SOL LYNN / INDUSTRIAL TRANSFORMERS	8/29/17	No			8/29/17	Harris
SOUTH CAVALCADE STREET	8/29/17	No			8/29/17	Harris
STAR LAKE CANAL	8/30/17	No			8/30/17	Harris
STATE MARINE OF PORT ARTHUR	9/1/17	No			9/1/17	Jefferson
TEX-TIN CORP.	9/1/17	No			9/1/17	Galveston
TRIANGLE CHEMICAL COMPANY	9/1/17	Yes				Galveston
UNITED CREOSOTING CO.	9/1/17	No			9/1/17	Montgomery
US OIL RECOVERY	9/1/17	Yes	9/4/17	Yes		Harris
LOUISIANA						
AMERICAN CREOSOTE DERIDDER	9/01/17	No			9/1/17	Beauregard
D.L. MUD, INC.	8/29/17	No			8/29/17	Vermillion
EVR-WOOD TREATING/EVANGELINE REFINING COMPANY	9/01/17	No			9/1/17	Acadia
GULF COAST VACUUM SERVICES	8/29/17	No			8/29/17	Vermillion
GULF STATE UTILITIES (North Ryan Street)	8/31/17	No			8/31/17	Calcasieu
MALLARD BAY LANDING BULK PLANT	8/29/17	No			8/29/17	Cameron
PAB OIL & CHEMICAL SERVICE	8/29/17	No			8/29/17	Vermillion
SBA SHIPYARD	9/01/17	No			9/1/17	Jefferson Davis
RUSTON FOUNDRY	9/3/17	No			9/3/17	Rapides

Status Summary	
Rapid Response Assessment Completed	**43**
Sites with no further action	**39**
Sites in Phase 2	**4**

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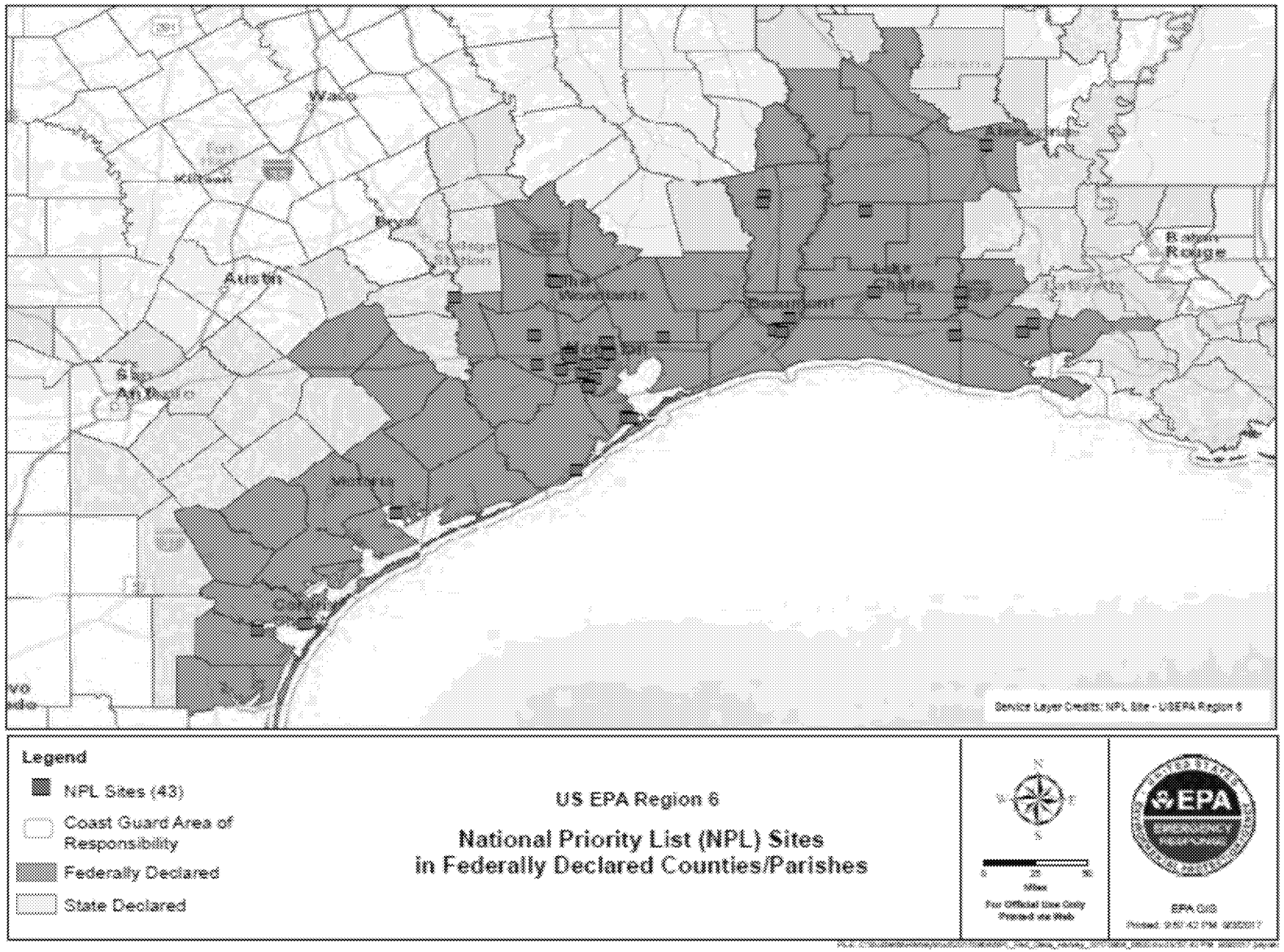
Waco
Austin
Baton Rouge
Legend
NPL Sites (43)
Coast Guard Area of Responsibility
Federally Declared
State Declared
US EPA Region 6
National Priority List (NPL) Sites
in Federally Declared Counties/Parishes
EPA

EPA Laboratory/Analytical Services:

EPA's Portable High-Throughput Integrated Laboratory Identification System (PHILIS) units were deployed from Denver to the Corpus Christi area. EPA is using PHILIS to process environmental samples and monitor at least six locations. All results from monitoring are currently at background conditions. An EPA Trace Atmospheric Gas Analyzer (TAGA) is a self-contained mobile laboratory capable of real-time monitoring as well as sampling and analysis of outdoor air or emissions. EPA's TAGA vehicle is in Houston supporting air monitoring.

EPA's Houston laboratory remains closed and is planned to reopen on September 8th. Their laboratory and office building were not damaged. Region 6 has back-up capabilities for laboratory services. The mobile laboratory and response vehicles are secure and will be deployed as road conditions allow.

On September 3rd, agencies under Unified Command conducted operations in both the Corpus Christi Branch and Houston Branch to identify and address orphan containers being carried in from the tide.

Air Monitoring

EPA continued to conduct air monitoring near the Valero Refinery in areas north and south of the intersection of 225 and 610 in Houston. Additional sampling locations were added to include a number of schools and parks. EPA contacted the Houston Health Department (HHD) to discuss concerns they received and had regarding elevated benzene and toluene levels detected in the neighborhood next to the Valero refinery. HHD is currently conducting air monitoring from a mobile laboratory as well as with additional ground support. HHD expressed an interest in EPA possibly taking over the air monitoring in the future so they could continue to address the growing number of locations in the Houston area.

Drinking Water/Wastewater Assessments:

EPA continues to support TCEQ in contacting owners and operators of DW/WW systems to determine their needs and operational status. Boil water orders have been issued as appropriate. Army of Corp of Engineers is working to locate pumps to provide additional water production capacity.

EPA is providing support to TCEQ for DW/WW system assessments. Of the approximately 4500 water systems that were initially projected to be impacted by Hurricane Harvey, approximately 3,607 systems were in the affected area. Of the systems in the affected areas, 2,175 are public water systems that serve a population of 10,878,982 and 596 are water systems that serve hospitals, health care facilities, nursing homes and day cares, with a population of 216,871. As of September 4th, EPA and TCEQ have made contact with 2,252 water systems and have confirmed 1,507 are fully operational and servicing water to a population of 9,523,361. Additionally, there are 148 systems that have reported being on a boil water notice and 50 have reported water outages.

Note: Reporting format has changed. Region 6 is exploring options for providing the most useful information on drinking water and wastewater facility status in future reports.

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Fuel Waivers:

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Reid Vapor Pressure Requirements Waivers				
TX	Letter from TCEQ requesting a waiver of the RVP, RFG and TxLED standards in the Governor's Disaster Proclamation	8/25/17	Granted on 8/25/17	https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver
GA	Amended letter from GA Department of Natural Resources for Atlanta RVP to waive 7.8 RVP requirement to 11.5 RVP	8/29/17	Granted on 8/29/17	https://www.epa.gov/enforcement/louisiana-fuels-waiver
LA	Letter from LA governor requesting a waiver of the low RVP requirements.	8/28/17	Granted on 8/28/17	https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf
AR	The state is drafting a waiver request to temporarily waive the requirement for low 9.0lb RVP fuel.	8/31/17	N/A	N/A
OK	A statewide low RVP fuel waiver request was submitted and then the request was amended.	8/28/17	8/30/17	https://www.epa.gov/enforcement/second-multi-state-fuels-waivers

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Dyed NRLM Diesel Fuel Waiver				
TX	Letter from TX comptroller requesting a waiver of using dyed NRLM diesel fuel in motor vehicles.	8/29/17	Granted on 8/29/17; IRS expanded to cover all of TX on 9/3/17	https://www.epa.gov/enforcement/texas-diesel-waiver
Low Volatility Conventional Gasoline and Reformulated Gasoline (RFG)				
CT, ME, MA, NH, RH, VT, DE, DC, MD, NJ, NY, and PA, FL, GA, NC, SC, VA, and WV; all mid-western states located in *PADD 2 - IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, SD, OH, OK, TN, and WI; and all Gulf coast states located in PADD 3 –AL, AR, LA, MS, NM, and TX	Issuance of waivers based on requests for the allowance of regulated parties within the listed states to produce, sell, or distribute conventional winter gasoline (including BOBs) with an RVP of 11.5 psi before the addition of any ethanol in any RFG covered area. The waiver for El Paso goes until September 16th due to their State Implementation Plan requirements.	8/30/17	Granted on 8/31/17	https://www.epa.gov/enforcement/second-multi-state-fuels-waivers

***PADD: Petroleum Administration for Defense Districts**

Communications:

On September 1st, EPA activated the Crisis Communication Plan to ensure rapid response to providing coordinated, accurate, up-to-date information regarding its field activities.

EOC PIO is working with program offices and Office of Public Affairs (OPA) to review and approve fact sheets on a variety of topics related to EPA's response activities. OPA posts fact sheets to the response website as they are approved. EOC PIO continues to work on review and approval of additional fact sheets provided by ORD, OCSPP and OAR / ORIA (Indoor Air Quality). PIO is also coordinating with FEMA / ESF-15 on external messaging and communications.

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Other PIO Activities:

- EPA Headquarters and R6 issued a press release on September 4th to announce that news crews (ABC, CNN, CBS, CNN and Bloomberg) joined TCEQ and EPA technical staff on site at Superfund sites around Houston September 5th.
- EOC PIO continues to work on posting fact sheets on a variety of response topics, portraying EPA's role in the disaster and how each office provides support.
- PIO deployments:
  - A Public Affairs Officer has been deployed to the ESF-15 Joint Information Center in Austin.
  - A Public Information Unit in R6 is fully operational and supported by a Public Information Assistance Team (PIAT).
  - A PIO has also deployed to Corpus Christi to support operations at the ESF-10 Unified Command.