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September 3, 2017 16:30 ET

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

Hurricane Harvey made landfall at 23:00 ET, August 26th, as a Category 4 storm near Rockport, Texas. Harvey was downgraded to a Category 1 with maximum sustained winds of 85 mph and located approximately 25 miles southwest of Victoria, TX by 07:00 on August 27th and 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.

Rivers and bayous in southeast TX, particularly in the Beaumont and Port Arthur regions will likely remain in major to record flooding through next week with several crests not being reached until this weekend. Flooding will continue across much of the middle and upper TX coast into southwest LA for several weeks. Flash flood watches and warnings are in effect from parts of northern Mississippi and across western Tennessee, Kentucky, southern Indiana and southwest Ohio. On September 1st, the National Weather Service (NWS) reported Harvey was classified as a Post-Tropical Cyclone with no more impacts to Texas.

As of 11:00 ET on Sept 2nd, Post-Tropical Cyclone Harvey was located 20 miles west-northwest of Lexington, Kentucky. The National Weather Service (NWS) reports the remnants of Harvey are located 60 miles east northeast of Fort Knox, Kentucky moving at 15 mph. Harvey will continue to move through portions of the Northeast and Mid-Atlantic through the weekend. There are expectations of localized flash flooding and isolated thunderstorms, however, no widespread significant impacts are expected. Major to record flood impacts will continue along the mid and upper Texas coasts and in Louisiana as peak river crests are likely to occur for most of the weekend. Long duration flooding will significantly hamper response and recovery activities. Harvey continues to weaken and is expected to dissipate over the Mid-upper Ohio Valley by the evening of September 3rd.

Arkema Chemical:
Arkema Chemical Facility located in Crosby, TX, is a Risk Management Plan (RMP) facility. It manufactures liquid organic peroxides and two substances, sulfur dioxide (anhydrous) and 2-methylpropene are present at, or above, the minimum threshold quantity for RMP applicability. There have been no accidental off-site releases of applicable RMP chemicals from the facility in the previous five years. Officials had warned that the plant could explode after its coolant system for the organic peroxide tanks and backup generators failed due to damage from Tropical Storm Harvey. Flooding prevented repairs from being made. Employees evacuated the facility on August 29th and an evacuation order was established for residents within a 1.5 mile-radius of the facility on August 30th.

On August 31st, at approximately 03:45 ET, two incidents of trailer fires were reported at the Arkema facility. According to local responders and media, one of the eight refrigerated trailers on site auto-ignited and burned. As of 14:30 on August 31st, Arkema management reported that three additional peroxide trailers were close to Self-Accelerating Decomposition Temperature (SADT) which is between 19 and 70 degrees Fahrenheit depending on the type of peroxide. Region 6 continues to work with the Interagency Modeling Atmospheric Assessment Center on modeling of anticipated future releases at the site. The modeling products are being delivered to Unified Command.

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EPA also identified a risk for a vessel of 38,000 pounds of Isobutylene that is close to the trailers of peroxide. The risk is radiant heat from burning peroxide could ignite the isobutylene. EPA deployed an On-Scene Coordinator (OSC) to the Unified Command post approximately four miles from the facility. Other EPA emergency response personnel in TX are in direct contact with first responders in Harris County and are providing federal assistance and resources.

On September 1st at approximately 17:30 ET, an additional trailer reacted resulting in a large fire with significant amounts of black smoke. During the fire, EPA's ground air monitoring results outside of the exclusion zone were below levels of health concern. The fire subsided at approximately 18:30 CT. Unified Command determined that access to the facility is unsafe and a 1.5- mile evacuation radius would remain in effect until further notice.

EPA's Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft have been making multiple overflights of the Arkema facility. ASPECT has performed 5 overflights with no detections, with the exception for 2 detections of benzoyl peroxide at approximately 5 ppm which is just above the detection limit. Mobile ground air monitoring for pollutants of concern including VOCs, SO2 and CO. ASPECT is currently conducting an overflight of the most recent fire on September 1st and will report additional data related to the plume.

As of Sept 2nd, Aerial reconnaissance photos indicated that flood waters within the facility have receded significantly. EPA collected surface water runoff samples downstream of the facility at 4 locations near a residential area. EPA's mobile laboratory analyzed the samples and will continue to maintain a 24- hr presence with air monitoring capabilities. Unified Command at the Arkema site continues to coordinate with the EPA Region 6 Environmental Unit to determine locations on the site where flood water samples should be collected.

Harris County Office of Homeland Security and Emergency Management is conducting air monitoring in the area. Four air monitoring teams from EPA, Harris County Pollution Control and Liberty County are conducting monitoring around the exclusion zone. So far, all readings are non- detect at ground levels. The Harris County Fire Department is maintaining a 1.5-mile evacuation order around the facility. Poison Control Centers are set up in TX to help citizens who have health concern questions concerning the Arkema facility or other flood-related health questions.

R6 OSC, contacted ASPECT ground control and stated that the Sheriff overflight reported that yellow material, believed to be organic peroxides was seeping from the six trailers on the ground. On September 2nd at 15:00 CT, ASPECT observed white smoke emitting from one of the remaining 6 trailers of peroxide. However, no further ignition of the material has occurred. A series of passes had measurable chemical detections consistent with peroxide above the detection limit (about 5 ppm) downwind (south and west) from the trailers. At 21:00 CT. ASPECT did not show chemical detections above the detection limits. Ground level air monitoring outside the 1.5-mile exclusion zone indicated non-detect for the contaminants of concern.

EPA's aerial reconnaissance aircraft continues to fly over the Arkema facility about every 10 to 15 minutes. EPA continues to monitor air quality. A 1.5-mile evacuation zone and Temporary Flight Restriction remains in effect.

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Conoco Philips Oil Spill:
On August 31st, The Conoco Phillips facility in Cuero, TX reported an oil spill consisting of 316 barrels due to Harvey. The spill has impacted Denton Creek. And an emergency response team is responding out of the Corpus Christi Incident Command Post.

Conoco Phillips indicated that they cannot drive to the facility. The Texas Railroad Commission and USCG drove as close to the facility as they could yesterday. No sheen of oil was observed, but the water flowed at a good pace. Waters are receding in the area and personnel will likely be able to access the facility to better assess the release and perform a response. As of September 2nd, no additional assessment or response has been reported. Conoco Phillips has updated their release totals to 385 barrels of oil and 76-barrel produced water since the tanks are on their side.

Oil Spills Reported September 2nd:
The Denbury Onshore LLC facility near Friendswood, TX reported an oil spill between 200 and 1,500 barrels of crude oil due to Harvey. Some of the fuel flowed into an underground storm drainage system that empties into tributaries of Cedar Creek. Most oil remained on company's property accord to Denbury Onshore LLC. Some of the fuel flowed into an underground storm drainage system that empties into tributaries of Cedar Creek. The Denbury facility reported that most of the oil remained on its property.

A second spill was reported by Linn Operating LLC and involved an unknown amount of oil from a battery of storage tanks in Montgomery County. The spills are attributed to flooding form Harvey.

SPILL/RELEASE RESPONSE

Hotline Calls as of September 3, 2017	
Number of Harvey Related Calls Received During Reporting Period 1300-0100	9
Total Number of Harvey Related Calls to Date	129
*** EPA is assessing each call to determine appropriate response and forwarding reports to field personnel to conduct further assessments and response as needed.**	

Beaumont, TX:

As of 10:00 CT on September 1st, the City of Beaumont's surface water treatment plant (SWTP) is producing 6-8 million gallons per day (MGD). No water is being sent to distribution as this time, but plant operators are currently attempting to pressurize lines from the plant to pump stations and storage facilities. Attempts to pressurize distribution will be made September 1st. The raw water pumps are not operational, and estimated to remain out of service for 2-3 weeks. Crews are currently on-site laying additional pipe and installing additional pumps.

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As of 9:00 CT on September 2nd, the City of Beaumont's water system anticipated being at half capacity, ten million gallons per day. The elevated storage tanks and groundwater tanks are mostly full and are currently valved- off until the system is brought back online. The City of Beaumont will be on a boil water notice when it goes on- line. The City has their Emergency Operations Center (EOC) fully functional and is the Managing Engineer for the City who stated that their EOC is currently in control of the situation and are continuing to offer customer assistance. The City of Beaumont Water Treatment Facilities reported to TCEQ that the groundwater plant remains off-line due to flooding conditions. The surface water treatment plant (SWTP) is producing 20 million gallons per day (MGD). Water is being sent to limited sections of distribution as this time due to the inability to maintain pressure. Operators are slowly opening main distribution lines and determining where pressure is being lost so repairs can be made. This will be a slow, methodical process to bring the entire system up to desired pressure.

As of 05:00 ET on Sept 2nd, FEMA reports pump, generator, and fuel arrived in Beaumont, Texas and is being installed to commence water treatment plant operations. A temporary pump from the Neches River to the city's water system was constructed by ExxonMobil, Echo, and Tiger Industrial. Water to residents has been restored to faucets as a flow, but the fix is temporary. Water should be used to flush and bathe only. The surface water treatment plant is producing six to eight million gallons of water per day, however water is not being distributed due to plant operators testing pressurized lines from the plant to pump stations. Raw water pumps are not operational and estimated to remain out of service for two to three weeks; crews are on-site laying additional pipes and installing additional pumps to bring raw water directly from the Neches River into the SWTP. It is estimated that the full capacity will take longer to determine due to leaks in the distribution system. Residents remain on a boil water notice and bottled water is being provided. The estimated demand will be above 20 MGD. EPA is looking for staging areas throughout Beaumont/Port Arthur to establish operations once flood waters recede.

Additional current status:

- Plant is off-grid with power
- Plant has 3 generators operational with 5 day supply of diesel fuel
- 5 day supply of Alum (coagulant)
- 5 day supply of caustic (pH adjustment)
- 5 day supply of chlorine
- 1 month supply of Polymer

Chemical and fuel deliveries are expected to resume as roads begin to open in the next few days.

Region 6:
The Region 6 REOC is currently activated and is working under a limited Emergency Support Function (ESF) 10 FEMA Mission Assignment (MA). In addition, Region 6 has received an MA to assist the State of Texas 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 Texas Commission on Environmental Quality (TCEQ)

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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 Texas EOC and the Denton RRCC to support response operations.

Disaster Declarations Issued:

- On August 25th, a major disaster declaration was issued for the state of TX for Hurricane Harvey.
  - An additional 14 counties were added on August 31st.
- On August 28th, an emergency declaration was issued for the state of Louisiana for Tropical Storm Harvey.
- On September 1st, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued an Emergency Waiver Order for Texas and Louisiana. The Waiver is granted to support EPA in taking appropriate actions to prepare for, respond to, and recover from a threat to public health, welfare, or the environment caused by actual or potential oil and hazardous materials incidents resulting from Hurricane and Tropical Storm Harvey.
- As of September 3rd, A Major Disaster Declaration is in effect for 36 counties in Texas.

Regional Mission Assignments:

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 Texas EOC and the Denton RRCC to support response operations.
Total Funds	**$8,612,000**	

Amendment No. 4 to FEMA-4332-DR-TX amends the cost-sharing arrangements regarding Federal funds provided. Authorizes:

- 90 percent Federal cost-share for debris removal
- 100 percent Federal cost-share for Emergency Protective Measures for 30 days from the start of the incident and then 90 percent thereafter

Region 6 deployed 2 OSCs on August 25th. One OSC deployed to the FEMA Regional Response Center in Denton, Texas and the second OSC to the State of Texas Operations Center in Austin, Texas.

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Region 6 has requested 4 OSCs from Region 2 to deploy to the Houston area. Four OSCs from the availability list have agreed to deploy September 1st, depending on the availability of flights. The REOC in Edison is coordinating logistics for this deployment.

Number of R6 Personnel Involved:

Personnel	EPA R6 Dallas, TX	FEMA Denton, TX	Texas SOC Austin, TX	TCEQ Austin, TX	Houston, TX	Corpus Christi, TX	Totals
R6	41	1	2	10	19	14	[=SUM(LEFT)]
START	7		1	1	11	6	26
ERRS						6	6
Other Contractor	1						1
TOTAL	49	1	3	11	30	26	[=SUM(ABOVE)]

EPA Headquarters:
The HQ EOC activated at 09:00 ET on August 28th and is at Level 1 operations 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 watch. EPA Senior Management that comprise the Policy Coordinating Committee (PCC) is in the process of developing 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
4332DRTXEPA0200	$40,000	FEMA HQ ESF-10 Desk Support
Total Funds	**$50, 000**	

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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 has activated the N-IMAT consisting of highly skilled response personnel from Regions 3, 4, and 5 to advise and assist R6 with response activities. Members of the N-IMAT arrived in Dallas on August 29th and are integrated into the Incident Management Team structure.

Criminal Investigation Division (CID):
EPA's Criminal Investigation Division (CID) is sending 25 special agents as a Quick Reaction Team (QRT) to south TX to support the response to Harvey. The response is managed as part of the MA under ESF-13. QRTs are deploying to provide law enforcement support, search and rescue operations, medical assistance teams and mortuary teams during the initial response to Harvey. As of September 2nd, the EPA CID QRT was enroute the to the affected area for at least 7 days with a possibility of extension.

State, Local and other Federal Agency Actions:

On August 30th, four National Incident Management Team members traveled to Corpus Christi to establish the Unified Command Center. EPA Region 6, TCEQ, Texas General Land Office (TGLO), and Coast Guard are operating in Unified Command. On August 30th, the Unified Command will have seven teams in the field conducting reconnaissance. The teams will consist of personnel from Region 6, TCEQ, Civil Support Corps, and a CG strike team.

Texas
The EOC is at Full Activation. The Governor has declared a State of Disaster for 50 counties. Mandatory/voluntary evacuations are in effect for 8 counties and several independent communities. The City of Houston has imposed a curfew effective immediately

Louisiana
The Governor has declared a State of Emergency for all parishes

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EPA Activities: Region 6:

On September 1st, the Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a waiver of hazardous materials regulations. The waiver applies to persons conducting operations under the direction of EPA Region 6 within the Hurricane and Tropical Storm disaster and emergency areas of Texas and Louisiana. The waiver is granted to support EPA in taking appropriate response actions.

On September 2nd, EPA sent four additional Drinking Water/Wastewater Assessment Teams to Corpus Christi, and four Drinking Water/Wastewater Assessment Teams to Houston.

As of 18:00 CT on September 2nd, the Louisiana State EOC discontinued full activation with ESFs 1, 3, 6, 7, 8, and DoD. Only those agencies dealing with sheltering were required to remain at the EOC. All other agencies are to remain on standby. The National Guard has been deployed in Texas and Louisiana. Additional National Guardsmen from AR, OK, and VA are preparing to deploy between September 4th to the 7th.

Federal Activities:

FEMA:
The Federal Emergency Management Administration (FEMA) has activated all Emergency Support Function (ESF) at FEMA Region 6 and the NRCC.

Other EPA Response Activities

EPA Laboratory/Analytical Services:
An EPA Trace Atmospheric Gas Analyzer (TAGA) vehicle is deployed to Corpus Christi. EPA's Portable High-Throughput Integrated Laboratory Identification System (PHILIS) units are en route from Denver to the Corpus Christi area and are anticipated to arrive on September 1st. The mobile laboratory will be used to process environmental samples. A TAGA vehicle is scheduled to arrive in San Antonio by September 4th.

On August 31st, EPA deployed four teams made up of On Scene Coordinators and contractors to Houston to coordinate with TCEQ, TGLO, and USCG and began responding to releases and spills at facilities. The teams will conduct rapid needs assessments, oil assessments, and hazards evaluations.

EPA is deploying four teams of On Scene Coordinators and contractors to Beaumont- Port Arthur to coordinate with TCEQ, TGLO, and US

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Coast Guard in responding to releases and spills at facilities. These teams will stage in Houston until weather allows them to enter the Beaumont- Port Arthur area.

On Saturday, September 2nd, EPA will send four additional Drinking Water/Wastewater Assessment Teams to Corpus Christi, and four Drinking Water/Wastewater Assessment Teams to Houston. The Corpus Christi Oil Discharge Assessment Team 1 observed an ongoing release of natural gas at the South Mustang Separation Facility. The team notified the responsible party and confirmed they were responding appropriately.

EPA's Houston laboratory is reporting that they will be closed until September 5th. The laboratory and office building are not damaged. Region 6 has back-up capabilities for laboratory services should the Houston facility remain closed. The mobile laboratory and response vehicles are secure and may be deployed when road conditions allow.

The EPA Regional Emergency Operations Center Liaison for the State of Louisiana, is reporting that the Louisiana Department of Environmental Quality (LDEQ) does not currently have any environmental emergencies resulting from the Hurricane Harvey rainfall. The LDEQ has not set up its IMT and does not plan to unless something significantly changes. LDEQ is making calls associated with some wastewater treatment plants in the area. EPA continues to monitor the situation in Louisiana and stay in close communication with LDEQ. As of Sept 2nd, the Louisiana State Emergency Operations Center (EOC) will no longer be fully activated. The main focus for Louisiana at this point is supporting individuals evacuating from impacted areas in Texas.

An EPA Liaison Officer met with the Nueces County Emergency Management Coordinator and Deputy Coordinator at the Nueces County Emergency Operations Center. The Coordinator informed the EPA that there were no environmental concerns they would need assistance with, but appreciated EPA reaching out to them. Nueces County's contractor will be starting vegetation debris pickup next week and project to be completed in about 4-6 days. The Coordinator did ask if EPA could echo any of their social media and media information about the debris pickup to assist in a widespread dissemination of their information.

Throughout the weekend, EPA staff assessed public water supplies, wastewater treatment facilities, Risk Management Plan (RMP) and Facility Response Plan (FRP) facilities for damage and immediate ongoing releases. EPA personnel deployments to Austin, Beaumont-Port Arthur, Houston and Corpus Christi will continue throughout the weekend. Personnel will be supporting the Unified Command teams that are identifying and evaluating impacts of the hurricane and floods, as well as coordinating with TCEQ to assist with priority drinking and waste water assessments. EPA is working with TCEQ to issue a statement on the hazards of floodwaters. Assisting drinking water and waste water facilities in maintaining and/or resuming their operational status remains a high priority.

Quality Assurance Sampling Plans (QASP) for Surface Water Quality Monitoring:
Region 6 Environmental Unit is currently working on a number of sampling and analysis plans in preparation for future sampling tasks.
Industrial Sources:

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Region 6 is working with TCEQ to contact industrial sources within the impacted area 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 area of TX. Exxon's oil refinery near Houston has reported suffered damage from Harvey.

On August 29th, TCEQ reported that Valero's Corpus Christi refinery had planned to begin start-up operations, running at 60% capacity until approximately September 3rd.

EPA is deploying four teams of OSCs and contractors to Beaumont-Port Arthur to coordinate with TCEQ, TGLO, and USCG in responding to releases and spills at facilities. These teams will stage in Houston until weather allows them to enter the Beaumont-Port Arthur area.

Drinking Water/Wastewater Assessments:

EPA continues to support TCEQ in contacting drinking water and waste water systems. EPA deployed 10 personnel to assist TCEQ's Drinking Water and Waste Water Phone Bank located in Austin, Texas on August 28th.

EPA is working closely with the TCEQ to man a "call bank" to reach drinking water and waste water facilities to determine their needs and operational status. To date, TCEQ and EPA have determined that 61 drinking water systems are not functioning due to loss of power or damage from the storm. Another 58 drinking water systems are compromised and running on generator power. A total of 30 waste water systems are shut down. Boil water orders have been issued as appropriate. Army of Corp of Engineers is working to locate pumps for them. They will either truck or fly them in. The system is good on chemicals and they do have chlorine tanks but they are secure in a building that is not impacted. Also, the Texas State Operations Center (SOC) is working to begin on hauling water as soon as a route is determined.

Summary Information on System Status as Reported by TCEQ		
	Systems	**Population**
Boil Water Notices (BWN) In Place	**166**	**264,431**
Inoperable Public Water Systems	**61**	**226,999**
Inoperable Wastewater Treatment Systems	**30**	**NA**

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Drinking Water Operational Status

Current Status: Operational status codes best describe the condition of the system at the time of the last assessment (2 September 2017 at 1709 ET). For the subsequent reports an alternate format may be used to account for changing TCEQ reporting schedules.
Yellow highlighting on status codes rows are not an indicator of new information.

Status Code	Status Detail	Status Code Description	Number of Systems*	Change from Previous
OK	No problems	Normal power was never lost (or was restored before pressure loss) AND System never lost treatment.	1435	+241
CLEAR	Lifted BWN due to neg. BacT samples. Normal operations resumed	BW lifted – negative BacT results. System has returned to normal operations, on grid power and with treatment. CLEAR code used when sampling has been used to lift BWN, otherwise OK code is used.	63	+6
GENOK	On generator – never lost pressure	Currently operating on emergency power/generator but system never lost pressure and/or treatment (generator wear out/refueling concerns).	16	+3
GENLP	On generator – lost pressure	Currently operating on emergency power/generator and system lost pressure and/or treatment before getting emergency power (contamination concerns).	14	+4
LP/LT	Lost pressure & or Treatment	System on grid power but has lost pressure and or treatment and has not been able to lift BWN.	61	+7
RESULTS	BacT sample results pending	System functional, flushed and BacT samples collected to clear BWN.	16	+6
INOP	Not Operating	Contact made with system. System is offline & or unable to maintain required pressure and or treatment.	50	+6
SITE	Site visit needed	Contact attempted at least 3 times over 3 days by phone. Site visit to be conducted.	2	+1
OUT	Out of Contact	Contact attempted by phone but system is unreachable; will call again.	16	-5
NO STATUS	No Status Available	No Contact made.	2680	-247
*Total number of systems from 50 TX counties tracked in Response Manager system.			**4512**	

Note: Codes that result in Red & Yellow will require additional follow up (phone or site). Blue codes require a site visit.

Water Operational Definition: All drinking water served to customers is treated to National Primary Drinking Water Standards and is moving through all parts of the distribution

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system at or above the state-required minimum pressure (20 psi or 35 psi for Harris County). The system is able to meet these requirements on a permanent basis in lieu of a temporary basis in response to the incident.

Boil Water Notice (BWN): A BWN is required any time a system drops below 20 psi at any point in the distribution system. A 24-hour public notification is required and a system must take bacteriological (BacT) samples once the minimum 20 psi can be consistently maintained. Bacteriological sample analysis must return an "absent" result indicating the sample is absent of bacteriological contamination.

Wastewater Operational Status

Current Status: Operational status codes best describe the condition of the system at the time of the current assessment.

Status Code	Status Detail	Status Code Description	Number of Systems*	Change from Previous
OK	No Problems	WWTP and Collection system fully operational and on grid power	1626	+1198
OpGen	WWTP and Collection on Generator	WWTP and/or Collection system is fully operational and on Generator Power or bypass pumps for lift stations (generator wear out/refueling concerns).	30	+5
Pop	WWTP and Collection Partially Operational SSO	WWTP and/or Collection system partially operational – Sanitary Sewer Overflow (SSO) in collection system (public health concerns).	32	+16
NonOp	WWTP and Collection non-operational no SSO	WWTP and/or Collection system non-operational – No Sanitary Sewer Overflow.	55	+6
SITE	Site Visit Needed	Contact attempted at least 3 times over 3 days by phone. Site visit to be conducted	2	+1
OUT	Out of Contact - phone eval only	Contact attempted by phone but system unreachable; will call again.	14	+8
NO STAT US	No Status Available	No Contact made.	678	-1234
*Total number of systems from 50 TX counties tracked in Response Manager system.			**2469**	

Note: Codes that result in Red & Yellow will require additional follow up (phone or site). Blue codes require a site visit.

Wastewater Operational Definition - All domestic wastewater collected, treated then discharged or land applied is permitted through the Texas Pollution Discharge Elimination System (30 TAC 305 rules) and discharges are required to meet the standards set by the Texas Surface Water Quality Standards and the Federal Clean Water Act. The wastewater collection and treatment system is able to meet these requirements on a permanent basis in lieu of a temporary basis in response to the incident. This definition does not include "onsite wastewater treatments systems" regulated under 30 TAC 285.

Fuel Waivers:

EPA has waived requirements for reformulated gasoline and low volatility gasoline through September 15th in the following states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania, Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia; all Midwestern states located in PADD 2 - Illinois,

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Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Ohio, Oklahoma, Tennessee, and Wisconsin; and all Gulf coast states located in PADD 3 – Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas.

On September 1st, four No Action Assurance (NAA) letters were signed by EPA, to help address fuel shortages. NAAs will help expedite the distribution of existing gasoline supplies in both Texas and Louisiana while the refineries work to re-start and resume normal operations. For each NAA, EPA will exercise discretion not to pursue enforcement for violations of the regulations identified in the NAAs. Each NAA is effective for two weeks, or until September 15th. It is anticipated that these NAAs will allow for the immediate distribution in Texas of 10 million or more gallons of gasoline to consumers.

The National Protection and Programs Directorate Office of Cyber and Infrastructure Analysis (OCIA) reports refineries in Corpus Christi, Texas (TX) are starting the process to re-open. These refineries do not provide gasoline to the Colonial Pipeline system which supplies much of the oil to the northeast United States. Gasoline prices across the nation continue to increase. The Department of Energy authorized the Strategic Petroleum Reserve (SPR) to negotiate and execute an emergency exchange agreement with the Phillips 66 Lake Charles Refinery. This decision will authorize 200,000 barrels of sweet crude oil and 300,000 barrels of sour crude oil to be drawn down from SPR's West Hackberry, Louisiana (LA) site and delivered via pipeline to the Phillips 66 refinery.

Harvey Related Waiver Requests

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Reid Vapor Pressure Requirements Waivers				
Texas	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	[HYPERLINK "https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver"]
Georgia	Amended letter from Georgia 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	[HYPERLINK "https://www.epa.gov/enforcement/louisiana-fuels-waiver"]

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Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Louisiana	Letter from Louisiana governor requesting a waiver of the low RVP requirements.	8/28/17	Granted on 8/28/17	[HYPERLINK "https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf"]
Arkansas	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
Oklahoma	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
Dyed NRLM Diesel Fuel Waiver				
Texas	Letter from Texas Comptroller requesting a waiver of using dyed NRLM diesel fuel in motor vehicles.	8/29/17	Granted on 8/29/17	[HYPERLINK "https://www.epa.gov/enforcement/texas-diesel-waiver"]
Low Volatility Conventional Gasoline and Reformulated Gasoline (RFG)				

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Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania, Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia; all mid-western states located in *PADD 2 - Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Ohio, Oklahoma, Tennessee, and Wisconsin; and all Gulf coast states located in PADD 3 –Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas	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, Texas 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**

Other EPA Response Actions:

Data Management: Two Data Team members have been deployed and are expected to arrive in Corpus Christi by September 1st. Region 6 will provide technical support to state regulatory agencies both at the GLO and TCEQ to gather data and information in Response Manager, a systemized response data management system.

Communications:

An EPA HQ Public Information Officer (PIO) is fully integrated into the Department of Homeland Security and FEMA communication structure and management, and participates in the daily National Incident Communication Conference Line (NICCL) call. As of September 1st, EPA activated the Crisis Communication Plan to ensure rapid response to providing coordinated, accurate, up- to- date information regarding its field activities. EPA's Public Information Office will be established in Dallas with forward field components as needed to support the HQ Office of Public Affairs.

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EOC PIO is currently working with program offices and OPA to review and approve fact sheets on a variety of topics related to EPA's response activities. OPA plans to post the fact sheets to the response website as they get approved. Fact sheets prepared by OW and OLEM will be posted by August 31st. EOC PIO continues to work on review and approval of additional fact sheets provided by ORD, OCSPP and OAR / ORIA (Indoor Air Quality). We are also coordinating with FEMA / ESF-15 on external messaging and communications.

Under a FEMA MA, EPA deployed a Public Affairs Officer to the ESF-15 Joint Information Center in Austin. The EPA Public Information Unit in Dallas is fully operational and supported by a Public Information Assistance Team (PIAT). An EPA PIO is also in Corpus Christi to support operations at the ESF-10 Unified Command. 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. Under a FEMA MA, EPA deployed a Public Affairs Officer to the ESF-15 FEMA Joint Information Center in Austin.

EPA Public Information Office:

- Developing statements on the status of water systems and the situation at the Arkema facility in Crosby, TX.
- Working with R6 EOC on a broad story map of the incident which will include Arkema
- Reached out to OCIR to identify someone who can begin participating on daily congressional conference calls starting tomorrow (Monday). Will forward the name to EOC Manager ASAP.
- Working with OPA and EOC to finalize fact sheets on a variety of topics

Superfund NPL Sites: EPA has conducted Rapid Response Assessments at the 41 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 28 Superfund sites in the area do not show damage or excessive flooding associated with Harvey. EPA determined that 13 sites have been flooded and/or are experiencing possible damage due to the storm. Of these sites, two (Falcon Refinery and the Brine Service), have been inspected and it has been determined that they do not require emergency cleanup; although, additional sampling in the area will continue to be conducted.

11 sites, including: Bailey Waste Disposal, French LTD, Geneva Industries/Fuhrmann Energy, Gulfco Marine, Highland Acid Pit, Malone Services, U.S. Oil Recovery, Patrick Bayou, Petro-Chemical Systems, Triangle Chemical, and San Jacinto Waste Pits have not been accessible by response personnel. Teams are in place to investigate possible damage to these sites as soon flood waters recede, and personnel are able to safely access the sites. The San Jacinto Waste Pits site has a temporary armored cap designed to prevent migration of hazardous material; the cap will be inspected as soon as it is safe for teams access the site. Based on forecasted river conditions, this inspection is planned for September 4th, by boat. EPA has dive teams to survey the cap underwater when conditions allow.

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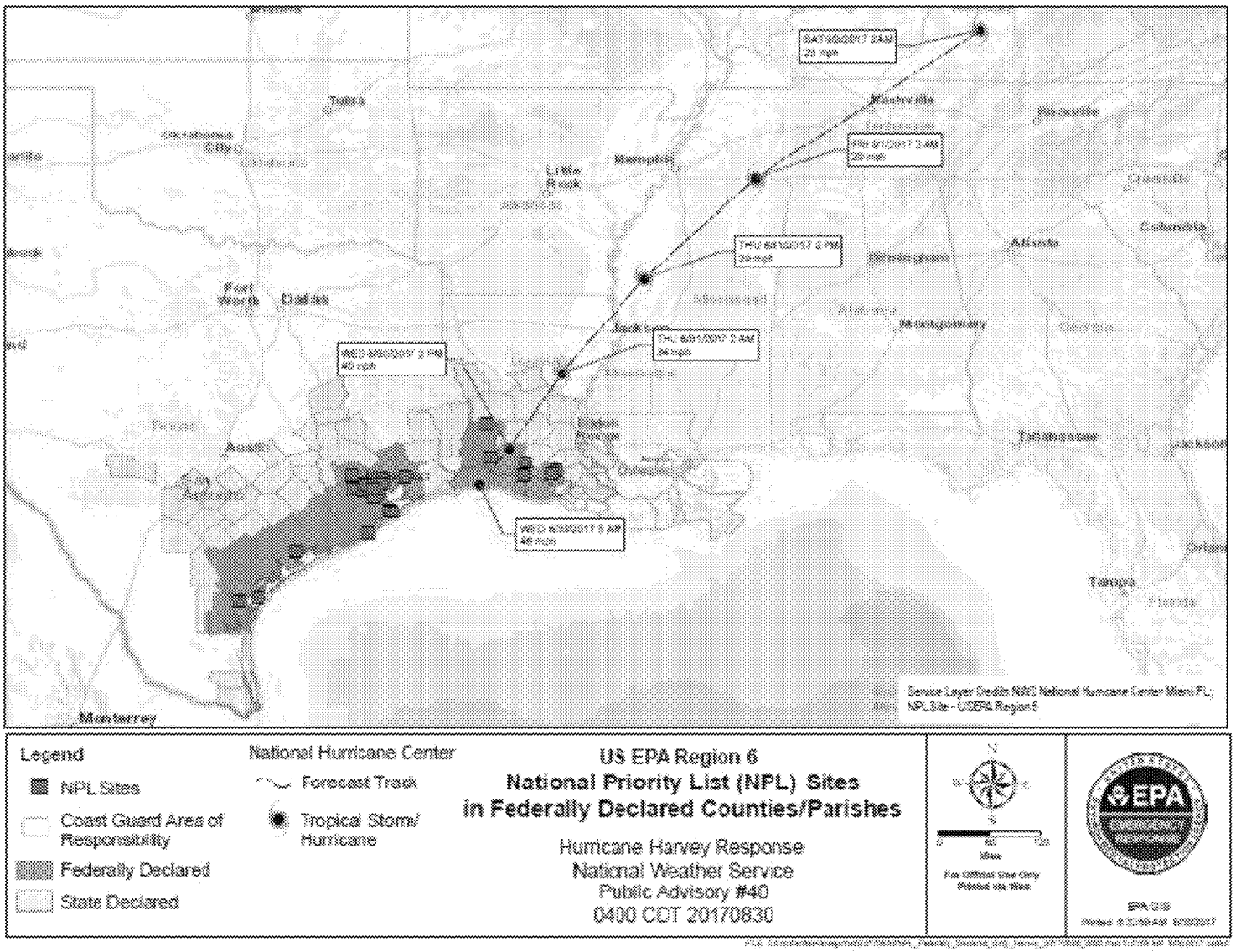
Superfund Sites within Federally Declared Counties						
Hurricane Harvey Rapid Response Assessment	**Phase 1**	**Phase 2**		**Phase 3**	**All Phases Completed**	**County**
	Rapid Response Assessment	**Site Inspection Needed**	**Inspected**	**Additional Response Action**		
TEXAS						
SITE NAME						
ALCOA (Point Comfort) / LAVACA BAY	8/29/17	No			8/29/2017	Calhoun
BAILEY WASTE DISPOSAL	9/1/2017	Yes				Orange
BRINE SERVICE CO.	8/30/17	Yes	8/30/17	No	8/30/2017	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	8/31/17	Yes	8/30/17	No	8/30/2017	San Patricio
FRENCH, LTD.	9/1/2017	Yes				Harris
GENEVA INDUSTRIES / FUHRMANN ENERGY	9/1/2017	Yes				Harris
GULFCO MARINE MAINTENANCE	9/1/2017	Yes				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	9/1/2017	Yes				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	9/1/2017	Yes				Galveston
MANY DIVERSIFIED INTERESTS, INC	9/1/17	No			9/1/17	Harris
MOTCO, INC.	8/31/17	No			8/31/2017	Galveston

NORTH CAVALCADE STREET	8/29/17	No			8/29/17	Harris
PALMER BARGE LINE	9/1/17	No			9/1/17	Jefferson
PATRICK BAYOU	9/1/17	Yes				Harris
PETRO-CHEMICAL SYSTEMS, INC. (Turtle Bayou)	9/1/2017	Yes				Liberty
SAN JACINTO RIVER WASTE PITS	9/1/17	Yes				Harris
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			8/30/2017	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	9/1/2017	Yes				Galveston
UNITED CREOSOTING CO.	9/1/17	No			9/1/17	Montgomery
US OIL RECOVERY	9/1/17	Yes				Harris
LOUISIANA						
AMERICAN CREOSOTE DERIDDER	09/01/17	No			9/1/17	Beauregard
D.L. MUD, INC.	08/29/17	No			8/29/17	Vermillion
EVR-WOOD TREATING/EVANGELINE REFINING COMPANY	09/01/17	No			9/1/2017	Acadia
GULF COAST VACUUM SERVICES	08/29/17	No			8/29/17	Vermillion
GULF STATE UTILITIES (North Ryan Street)	08/31/17	No			8/31/2017	Calcasieu
MALLARD BAY LANDING BULK PLANT	08/29/17	No			8/29/17	Cameron
PAB OIL & CHEMICAL SERVICE	08/29/17	No			8/29/17	Vermillion

SBA SHIPYARD	09/01/17	No			9/1/17	Jefferson Davis
Status Summary						
Rapid Response Assessment Completed	**41**					
Sites with no further action	**28**					
Sites in Phase 2	**13**					

Superfund National Priority List (NPL) Sites in Federally Declared Counties