



Hurricane Harvey

Event Report (Update #1)

REPORT TIME & DATE:	8:00 AM EDT Saturday, August 26, 2017
INCIDENT START DATE:	Friday, August 25, 2017
PRIMARY LOCATION(S):	Gulf Coast (Texas and Louisiana)
REPORT DISTRIBUTION:	Public

EXECUTIVE SUMMARY

Hurricane Harvey made landfall around 11:00pm EDT on August 25, 2017 between Port Aransas and Port O'Connor, Texas as a category 4. Harvey is the strongest hurricane to impact Texas since 1961 and the first category 4 storm to make landfall in the United States since Hurricane Charley in 2004.

As of 7:45am EDT, there were 258,137 customer power outages across Texas and no significant power outages in Louisiana. Impacted utilities have issued statements that they are expecting power outages to last several days. Restoration efforts cannot begin until weather conditions are safe and high rainfall total and flooding could extend restoration times in many affected areas. Before equipment in flooded areas can be reenergized, waters will need to recede and equipment at substations will need to dry out and be inspected for damage.

As of Thursday afternoon 21.5% of the oil production 23.2% of the natural gas production in Gulf of Mexico are shut-in as a precaution in anticipation of the storm. Refineries in the Corpus Christi area also reported also shutdown in advance of the storm.

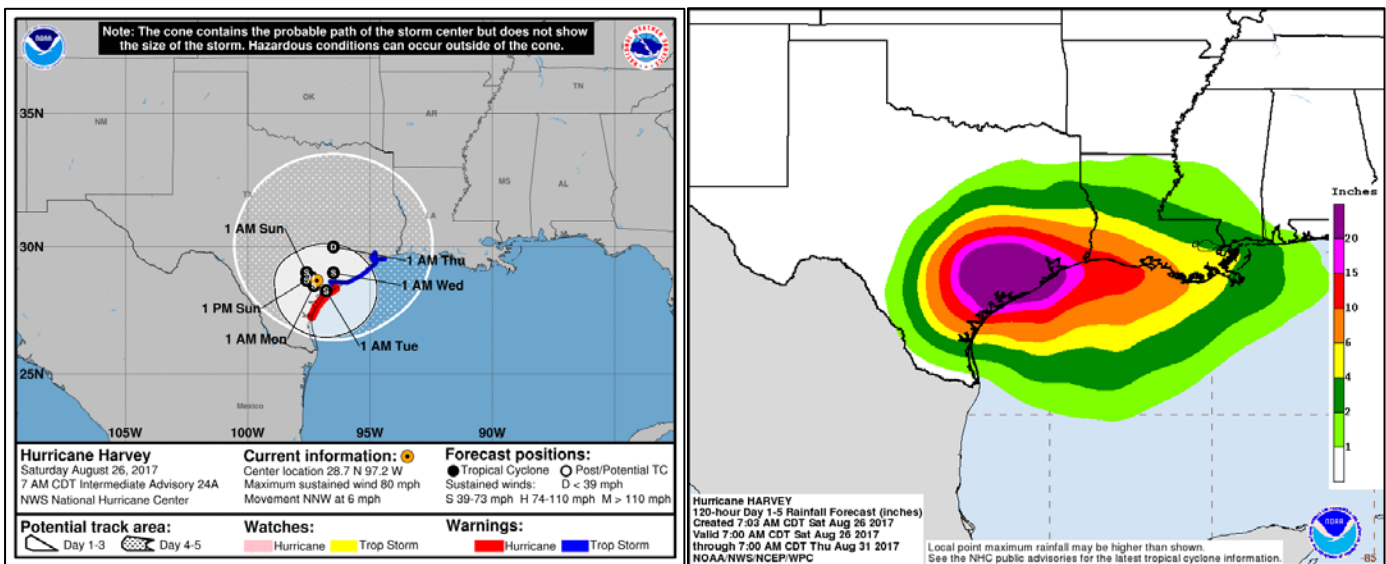
A federal major disaster declaration was approved for Texas on August 25. The U.S. Environmental Protection Agency (EPA), in consultation with the U.S. Department of Energy has approved a request made by the Texas Commission on Environmental Quality to waive requirements for reformulated gasoline, Reid vapor pressure, and Texas Low Emission Diesel for select counties covered by the Governor's Disaster Proclamation to help alleviate constraints on gasoline for retail stations due to the storm.

INCIDENT OVERVIEW

Hurricane Harvey made landfall on Friday, August 26 around 11:00pm EDT between Port Aransas and Port O'Connor, Texas as a category 4 storm. As of 8:00am EDT, Hurricane Harvey is 20 miles west-southwest of Victoria, Texas moving north-northwest at 6 MPH, with maximum sustained winds of 80 MPH (Category 1). Hurricane-force winds extend outward up to 35 miles from the center, and tropical-storm-force winds extend outward up to 140 miles. Harvey is expected to slow down through the day and meander over southeastern Texas through the middle of next week.

Harvey is expected to produce total rain accumulation of 15 to 30 inches, with isolate maximums of 40 inches, over the middle and upper Texas coast through next Wednesday. During the same period Harvey is expected to produce total rain accumulation of 5 to 15 inches in far south Texas and the Texas Hill Country eastward through central and southwest Louisiana. Storm surge of 2 to 9 feet is still possible throughout the hurricane warning area.

Hurricane warnings currently extend from Baffin Bay to Port O'Connor, Texas and tropical storm warnings extend from north of Port O'Connor to High Island, Texas.



ELECTRICITY SECTOR

OVERVIEW

Impacted utilities, such as Entergy, AEP Texas, and CenterPoint Energy have issued statements and are expecting power outages to last several days. Restoration efforts cannot begin until weather conditions are safe for workers. High rainfall total and flooding could extend restoration times in many affected areas. Before equipment in flooded areas can be reenergized, waters will need to recede and equipment at substations will need to dry out and be inspected for damage. There are no unmet needs by any electric utility at this time. The Southeastern Electric Exchange and the Midwest Mutual Assistance Group are actively monitoring the need for mutual assistance and crew deployments to respond to power outages in Texas and Louisiana. A federal major disaster declaration has been approved for Texas.

ELECTRICITY OUTAGES AS OF 7:45 AM EDT 08/26/2017			
Impacted State	Current Confirmed Customer Outages	Percent of Confirmed State Customers without Power	24-hr Peak Customer Outages
Louisiana	120	<1%	8,130
Texas	258,137	2%	266,752
Total	258,257		*

**There is no sum of the Peak Customer Outage column because peaks for individual utilities occur at different times; a total would not reflect peak outages.*

- Louisiana
 - As of 7:44 AM EDT, August 26, the State of Louisiana has 120 customer outages. This represents < 1% of customers in the state.
 - Entergy Louisiana has 84 customer outages.
 - Southwestern Electric Power Co (SWEPCO) has 19 customer outages.
 - CLECO Power Inc. has 17 customer outages.
 - The Governor of Louisiana has declared a state of emergency.
 - The Louisiana Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) is activating its Crisis Action Team due to the storm.
 - Entergy Louisiana is monitoring the storm and will respond as needed.
 - Cleco Cooperative crews, along with contractor crews, are currently on stand-by and prepared to restore service, if necessary. Cleco is monitoring the storm.
- Texas
 - As of 7:44 AM EDT, August 26, the State of Texas has 258,137 customer outages. This represents 2% of customers in the state.
 - AEP Texas has 192,502 customer outages.
 - CenterPoint Energy has 49,356 customer outages.
 - Nueces Electric Cooperative has 7,623 customer outages.
 - Texas New Mexico Power has 4,650 customer outages.



- Nueces Electric Cooperative (NEC), which serves Corpus Christi and surrounding areas, announced via their website that they cannot begin damage assessment or restoration until after the storm has passed. NEC expects prolonged outages that could last for several days for some customers.
- Guadalupe Valley Electric Cooperative has suspended outage restoration in DeWitt County due to unsafe working conditions.
- Extra crews from Texas-New Mexico Power and other companies arrived in the impacted TNMP area or are en route. They are expected to start working Saturday. TNMP expects new outages to continue and last for several days.
- The Governor of Texas has declared a state of emergency for 30 counties near the coast.
- AEP Texas does NOT have plans to shut off power to portions of its service territory despite public speculation.
- AEP Texas, via a news release, indicated that approximately 2,000 personnel have either arrived or shortly will arrive at locations to safely wait out the storm and then begin the restoration process. These personnel include distribution and transmission line crews, forestry teams, and support staff. AEP Texas's sister company, Southwestern Electric Power Company (SWEPCO), is sending 187 personnel to assist in restoration efforts. AEP Texas is NOT immediately responding to any current outage.
- AEP Texas has activated its Incident Command Structure (ICS). Preliminary restoration schedules based on weather models have been planned ahead of time. They have also activated their internal and external communications outreach in accordance with their ICS plan.
- CenterPoint Energy has been closely monitoring and preparing for the storm. They are prepared for potential widespread flooding.
- Entergy Texas is monitoring the storm and preparing for the potential impact to Southeast Texas. Entergy Texas crews are prepared to safely restore service when conditions permit.



OIL AND GAS SECTOR

OFFSHORE PRODUCTION

- As of 12:30 PM EDT, August 25, 377,177 b/d (21.55%) of the oil production and 748 MMcf/d (23.24%) of the natural gas production in the federally administered areas of the U.S. Gulf of Mexico are shut-in, according to estimates by the Bureau of Safety and Environmental Enforcement (BSEE).

U.S. Gulf of Mexico Oil & Gas Production Status <i>as of 12:30 PM EDT 08/25/2017</i>		
Production	Pre-Event	Shut-In (08/25)
Crude Oil (b/d)	1,750,000	377,177
Natural Gas (MMcf/d)	3,220	748
Infrastructure	Pre-Event Count	Evacuated (08/25)
Manned Platforms	737	86
Rigs	31	5

Source: BSEE

- On August 23, Shell said it had shut in production at its Perdido (100,000 b/d oil, 200 MMcf/d gas) and Enchilada Salsa (60,000 b/d, 400 MMcf/d) production platforms in the Gulf of Mexico in preparation for Harvey. Shell was in the process of returning all Perdido personnel to shore.
- On August 23, Anadarko said it had shut in production and was evacuating workers from its 40,000 b/d Boomvang (40,000 b/d oil, 200 MMcf/d gas), Gunnison (40,000 b/d oil, 200 MMcf/d gas), Lucius (80,000 b/d oil, 450 MMcf/d gas), and Nansen (40,000 b/d oil, 200 MMcf/d gas) platforms in the Gulf. On August 25, the company said it had shut-in production at its Constitution, Heidelberg and Holstein platforms in the Gulf of Mexico.
- On August 23, ExxonMobil was in the process of reducing production at its Hoover (100,000 b/d oil, 325 MMcf/d gas) platform in the Gulf. On August 24, the company said it was shutting at the Galveston 209 platform and preparing facilities for evacuations.
- On August 24, ConocoPhillips said it partially evacuated its Magnolia platform (50,000 b/d, 150 MMcf/d gas) but does not expect an impact to production.
- On August 24, Noble evacuated non-essential personnel from Paul Ramano rig in Gulf.
- On August 24, Williams Co. said all offshore personnel were evacuated.
- On August 25, Genesis Energy announced its Cameron Highway Oil Pipeline System was offline due to the storm. BP said that the shutdown of CHOPS prompted its rigs to operate at reduced rates in the Gulf.



ONSHORE PRODUCTION

- On August 24, Statoil began evacuating staff from the Eagle Ford shale region, but was not currently not planning on shutting in any wells.
- On August 24, Marathon began evacuating non-essential personnel from Eagle Ford shale operations and was suspending operations as appropriate.
- On August 24, ConocoPhillips suspended drilling or completions in the Eagle Ford shale region and was idling five rigs.
- On August 24, Pioneer Natural suspended any well completions in the Eagle Ford region.
- On August 24, EOG curtailed drilling and shut-in some production in the Eagle Ford region.
- On August 25, BHP Billiton announced it had shut in all Eagle Ford production and midstream operations ahead of the hurricane.
- On August 25, Noble announced it had stopped completing new wells in the Eagle Ford region. All non-essential employees were released.
- On August 25, ExxonMobil said it had shut in Eagle Ford production from oil wells in the direct line of the hurricane.

PETROLEUM REFINERIES

- As of 08:00 AM EDT, August 26, all six refineries in the Corpus Christi area have been or were in the process of shutting down, according to public reports. These refineries have a combined refining capacity of 924,720 b/d, equal to 18.4% of total Gulf Coast refining capacity. In addition, one refinery in the Houston/Galveston region area was operating at reduced rates.

NATURAL GAS PROCESSING PLANTS

- As of August 25, DCP had shut all of its natural gas processing plants in anticipation of Harvey's landfall. These include the Jackson, Jefferson and Nueces gas processing plants in Texas.
- As of August 25, Enterprise Products Partners had shut its Shoup natural gas processing plant in Corpus Christi due to Hurricane Harvey.
- Buckeye Texas Processing (BTP) announced August 25 it had shut down its LPG facility in Corpus Christi.



PORTS

- As of 3:00 PM EST, August 25, the U.S. Coast Guard has set the following conditions for ports and waterways in the U.S. Gulf Coast region as a result of Harvey.
- In addition, Louisiana Offshore Oil Port (LOOP) facilities are currently reporting normal operations. LOOP is executing its Inclement Weather Plan and will update Shippers accordingly.

Status of Texas and Louisiana Gulf Coast Ports as of 8:00 AM EDT 08/26/2017		
Sector Corpus Christi	Status	Date Stamp
Brownsville	Port Condition Zulu. Closed.	08/25/2017
Corpus Christi	Port Condition Zulu. Closed. Corpus Christi ship pilots suspend all incoming vessel activity.	08/25/2017
Sector Houston/Galveston	Status	Date Stamp
Freeport	Port Condition Zulu. Closed. Freeport Ship Channel closed to all traffic.	08/25/2017
Galveston	Port Condition Zulu. Closed.	08/25/2017
Houston	Port Condition Zulu. Closed. Houston Ship Channel Closed to all traffic.	08/25/2017
Texas City	Port Condition Zulu. Closed.	08/25/2017
Sector Port Arthur/ Lake Charles	Status	Date Stamp
Beaumont	Normal.	08/25/2017
Lake Charles	Normal.	08/25/2017
Mont Belvieu	Normal.	08/25/2017
Nederland	Normal.	08/25/2017
Port Arthur	Normal.	08/25/2017
Sabine Pass	Normal.	08/25/2017

Source: U.S. Coast Guard

PETROLEUM TERMINALS

- On August 24, NuStar Energy said it was preparing to shut down its Corpus Christi terminal ahead of the storm.
- On August 24, Magellan said it was preparing to shut down its Corpus Christi terminal.
- On August 24, Mansfield said it was preparing to shut down its Corpus Christi terminal.
- On August 25, Phillips 66 temporarily suspended operations at its Freeport terminal as a result of the Port of Freeport closure.
- On August 25, Buckeye suspended its marine terminal operations.



WAIVERS

- The U.S. Environmental Protection Agency (EPA) has approved a request made by the Texas Commission on Environmental Quality (TCEQ) to waive requirements for reformulated gasoline (RFG), Reid vapor pressure (RVP), and Texas Low Emission Diesel (TxLED) that apply in some counties covered by the Governor’s Disaster Proclamation. The waiver was issued after consultation with the U.S. Department of Energy to address a fuel supply emergency caused by refinery shutdowns and evacuations associated with Hurricane Harvey.
 - The RFG-waiver waives requirements for RFG, allowing the sale or distribution of conventional gasoline in the Houston-Galveston-Brazoria areas. The waiver is effective immediately and continues through September 15, 2017.
 - The RVP waiver waives requirements for the 7.8 psi RVP gasoline standard in 20 counties in the Texas Gulf Coast region where low-RVP gasoline is required and are also under the Governor’s Disaster Declaration. The waiver is effective immediately and continues through September 15, 2017.
 - The TxLED waiver waives the TxLED requirement in 29 counties in the Texas Gulf Coast region that require TxLED and are also under the Governor’s Disaster Declaration. The waiver is effective immediately and continues through September 15, 2017.
- Texas and Louisiana have declared state emergencies due to Harvey. These declarations automatically waive select Federal Motor Carrier Safety Administration (FMCSA) regulations, including hours-of-service (HOS) regulations, for motor carriers hauling resources to aid in restoration efforts. The declarations exempt FCMSA regulations in every state along the motor carrier’s route as long as the final destination is Texas or Louisiana.

State Emergency Declarations and Hours-of-Service (HOS) Waivers <i>as of 08:00 AM EDT</i> 08/26/2017				
State	Details	Effective Dates		Status
		Start	End	
Texas	State of Disaster declared for Aransas, Austin, Bee, Calhoun, Chambers, Colorado, Brazoria, DeWitt, Fayette, Fort Bend, Galveston, Goliad, Gonzales, Harris, Jackson, Jefferson, Jim Wells, Karnes, Kleberg, Lavaca, Liberty, Live Oak, Matagorda, Nueces, Refugio, San Patricio, Victoria, Waller, Wharton, and Wilson counties.	8/23/17	TBD	Active
Louisiana	State of Emergency declared	8/23/17	TBD	Active

Sources: [U.S. Department of Transportation](#); Governor Office Websites; NOLA.com; Houston Chronicle

