From:	Carroll, Craig
To:	Smalley, Bryant
Cc:	Smith, Monica; Webster, Susan; Williams, David (R7); R6HarveyRICT; Mason, Steve
Subject:	Fwd: Fuel availability Information
Date:	Friday, September 01, 2017 1:32:02 PM
Attachments:	Tropical Storm Harvey - Petroleum Availability - Update 31AUG2017.pdf ATT00001.htm

---

Please develop plan for tracking these facilities. Thanks

Sent from my iPhone

Begin forwarded message:

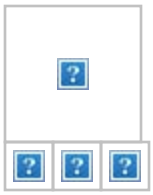
From: "Edlund, Carl" <Edlund.Carl@epa.gov>
To: "Peterson, Mary" <Peterson.Mary@epa.gov>, "Crossland, Ronnie" <Crossland.Ronnie@epa.gov>, "Carroll, Craig" <Carroll.Craig@epa.gov>, "Smith, Monica" <smith.monica@epa.gov>, "Foster, Althea" <Foster.Althea@epa.gov>, "Webster, Susan" <webster.susan@epa.gov>, "Smalley, Bryant" <smalley.bryant@epa.gov>
Subject: FW: Fuel availability Information

INSUSTRIAL FACILITIES SHEET….LET'S USE IT

From: Coleman, Sam
Sent: Friday, September 01, 2017 10:49 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Cc: Bowman, Liz <Bowman.Liz@epa.gov>; Wagner, Kenneth <wagner.kenneth@epa.gov>; Starfield, Lawrence <Starfield.Lawrence@epa.gov>; Gray, David <gray.david@epa.gov>; Edlund, Carl <Edlund.Carl@epa.gov>; Pederson, Ashley <Pederson.Ashley@epa.gov>
Subject: FW: Fuel availability Information
I worked with the RRC to get the information the Gov and other Sr folks here in the State are reporting. The report , published by DHS, is attached.
Samuel Coleman, P.E.
Deputy Regional Administrator
EPA Region 6
coleman.sam@epa.gov
214.665.2100 Ofc
214.665.3110 Direct
214.789.2016 Cell

From: Rich Parsons [mailto:Rich.Parsons@rrc.texas.gov]
Sent: Friday, September 01, 2017 10:42 AM
To: Coleman, Sam <Coleman.Sam@epa.gov>
Cc: Kimberly Corley <kimberly.corley@rrc.texas.gov>
Subject: Fuel availability Information
Mr. Coleman, our Executive Director, Kim Corley asked me to provide you information

we've compiled regarding fuel availability. It's important to note, fuel supply or supply chain logistics are non-jurisdictional to the RRC.
Please let me know if we can assist you with anything.
Thank You,
Rich Parsons
Director of External Affairs
Railroad Commission of Texas
(512) 936-3520



Attached is a Petroleum Availability report from the U.S. Dept. of Homeland Security, additional information and links from the Office of the Governor of Texas and Texas Dept. of Public Safety/Texas Division of Emergency Management are below.

Press Release Issued by Gov. Greg Abbott:

Governor Abbott Eases Restrictions On Truckers Bringing Fuel And Supplies Into The State
August 31, 2017 | Austin, Texas | Press Release
Governor Greg Abbott today issued a temporary waiver of the International Fuel Tax Agreement (IFTA), which will suspend requirements that trucking firms track and pay tax on the amount of fuel used in Texas when delivering needed relief supplies and fuel into the state. This suspension will expedite the process of getting needed relief supplies and fuel into the state and immediately reduce the cost and administrative burden getting these critical supplies across state lines.
"As Texas begins the recovery process in the wake of Hurricane Harvey, it is important that Texans have access to much needed resources, including gasoline and fuel." said Governor Abbott. "Texans should rest assured that their state government is doing every possible to ensure the accessibility and affordability of the necessities allowing us to focus on the process of rebuilding together after this storm."

From The Texas Department of Public Safety and Texas Division of Emergency Management:

August 31, 2017
Private sector partners from the fuel industry continue to work alongside the other members of the Texas Emergency Management Council at the State Operations Center in Austin as part of the massive response to Hurricane Harvey. This group – the Texas Fuel Coordination Group – is continuing to monitor and work with the fuel industry to respond to fuel impacts related to this storm and to obtain the necessary waivers to assist in returning to normal production as quickly as possible.
Additional information you might consider regarding your inquiry:
https://www.txoga.org/
http://www.tffa.com/
http://www.api.org/~/media/Files/News/hurricane/2017-Hurricanefactsheet.pdf
Individual production distribution or retail facilities may be contacted directly for

additional information.

Homeland Security

National Protection and Programs Directorate
Office of Cyber and Infrastructure Analysis (OCIA)

INFRASTRUCTURE IMPACT ASSESSMENT

August 31, 2017; 1515 EDT

THE POTENTIAL IMPACT OF TROPICAL STORM HARVEY ON PETROLEUM PRODUCTS – UPDATE 1

KEY FINDINGS

- **Additional refineries closures occurred since August 30, 2017, but refineries in Corpus Christi, Texas (TX) are starting the process to re-open. These refineries do not provide gasoline to the Colonial Pipeline system.**
- **Gasoline prices 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.**

(U) SCOPE NOTE: The Department of Homeland Security (DHS)/Office of Cyber and Infrastructure Analysis (OCIA) produced this Infrastructure Impact Assessment as an update to the 30 August 2017 product, The Potential Impact of Tropical Storm Harvey on Petroleum Products.

(U) This product was coordinated with the DHS/Transportation Security Administration, Department of Energy (DOE) and the Department of Transportation.

UPDATE

Refineries

Table 1 lists the status of each of the 21 identified refineries in the Corpus Christi, TX to Lake Charles, LA area.

TABLE 1—STATUS OF PETROLEUM REFINERIES IN AFFECTED AREA

REFINERY	LOCATION	CAPACITY (MBPD[1])	NOTES
Baytown (ExxonMobil)	Baytown, TX	561	Closed[2]
Beaumont (ExxonMobil)	Beaumont, TX	362	Closed due to high water at the facility[3]
Corpus Christi (Buckeye)	Corpus Christi, TX	50	Unknown[4]

[1] MBP – Thousands of barrels per day.
[2] Bloomberg, "Gasoline Jumps, Oil Slips as Harvey Slams Texas Refinery Center", on August 28, 2017 at http://www.rigzone.com/news/oil_gas/a/151556/Gasoline_Jumps_Oil_Slips_as_Harvey_Slams_Texas_Refinery_Center, accessed August 29, 2017.
[3] New York Times, "Harvey Threatens More U.S. Gulf Refineries, Supply Constraints Emerge" on August 29, 2017 at https://www.nytimes.com/reuters/2017/08/29/business/29reuters-storm-harvey-energy.html?mcubz=1, accessed August 29, 2017.
[4] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.

REFINERY	LOCATION	CAPACITY (MBPD[1])	NOTES
Corpus Christi (Citgo)	Corpus Christi, TX	158	Restarting operations[5]
Corpus Christi (Koch)	Corpus Christi, TX	296	Restarting operations[6]
Corpus Christi (Magellan)	Corpus Christi, TX	50	Closed[7]
Corpus Christi (Valero)	Corpus Christi, TX	293	Restarting operations[8]
Deer Park (Shell Oil)	Deer Park, TX	326	Closed[9]
Houston (LyondellBasell)	Houston, TX	264	Operating at a reduced rate.[10]
Houston (PetroMax)	Houston, TX	25	Current status unknown, but vulnerable to shut down if still operating.[11]
Houston (Valero)	Houston, TX	191	Operating[12]
Pasadena (Petrobras)	Pasadena, TX	112	Closed[13]
Motiva (Saudi Aramco)	Port Arthur, TX	603	Shutting down operations[14]
Port Arthur (Total)	Port Arthur, TX	226	Shutting down operations[15]
Port Arthur (Valero)	Port Arthur, TX	335	Shutting down operations[16]
Sweeny (Phillips 66)	Sweeny, TX	247	Closed[17]
Galveston Bay (Marathon)	Texas City, TX	451	Restarting operations[18]
Three Rivers (Valero)	Three Rivers, TX	89	Restarting operations[19]
Lake Charles (Calcasieu Refining)	Lake Charles, LA	104	Closed[20]

[5] Chronicle News, "Largest Oil Refinery in U.S. Shutdown by Harvey" on August 30, 2017 at http://chronicleofnews.com/largest-oil-refinery-in-u-s-shutdown-by-harvey/, accessed August 31, 2017.
[6] Wall Street Journal, "Harvey Forces U.S.'s Largest Refinery to Cut Output to 60% Capacity" on August 29, 2017 at https://www.wsj.com/articles/harvey-forces-u-s-s-largest-refinery-to-cut-output-to-60-capacity-1504029040?tesla=y, accessed August 29, 2017.
[7] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[8] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[9] Bloomberg, "Gasoline Jumps, Oil Slips as Harvey Slams Texas Refinery Center", on August 28, 2017 at http://www.rigzone.com/news/oil_gas/a/151556/Gasoline_Jumps_Oil_Slips_as_Harvey_Slams_Texas_Refinery_Center, accessed August 29, 2017.
[10] Chemical & Engineering News, "Harvey Stalls Chemical, University Activities on the Gulf Coast", on August 28, 2017 at http://cen.acs.org/articles/95/web/2017/08/Harvey-stalls-chemical-university-activities.html, accessed August 28, 2017.
[11] Morningstar, "Morningstar Says Eleven Oil Refining Plants Vulnerable to Storm Harvey", on August 29 at http://timesofindia.indiatimes.com/business/international-business/morningstar-says-eleven-oil-refining-plants-vulnerable-to-storm-harvey/articleshow/60279930.cms, accessed August 29, 2017.
[12] San Antonio Business Journal, "Valero Keeps Houston Area Refineries in Operation as Harvey Moves", on August 28, 2017 at https://www.bizjournals.com/sanantonio/news/2017/08/28/valero-keeps-houston-area-refineries-in-operation.html, accessed August 29, 2017.
[13] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[14] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[15] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[16] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[17] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[18] Wall Street Journal, "Harvey Forces U.S.'s Largest Refinery to Cut Output to 60% Capacity" on August 29, 2017 at https://www.wsj.com/articles/harvey-forces-u-s-s-largest-refinery-to-cut-output-to-60-capacity-1504029040?tesla=y, accessed August 29, 2017.
[19] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[20] Chronicle News, "Largest Oil Refinery in U.S. Shutdown by Harvey" on August 30, 2017 at http://chronicleofnews.com/largest-oil-refinery-in-u-s-shutdown-by-harvey/, accessed August 31, 2017.

REFINERY	LOCATION	CAPACITY (MBPD[1])	NOTES
Lake Charles (Citgo)	Lake Charles, LA	425	Reduced production due to supply issues[21]
Westlake (Phillips66)	Westlake, LA	260	Off-line for planned maintenance[22]

The Corpus Christi, TX refineries, which constitute the bulk of the restarts, will not provide immediate relief to customers in the eastern half of the United States. These refineries primarily service San Antonio, Austin, and Dallas and also export to Mexico.[23,24,25]

Table 2 shows the changes in the status of refineries since Tuesday, August 29, 2017. All of the refineries that remained open but indicated that they may close, did so. However, most of the refineries in Corpus Christi, Texas City, and Three River, TX are re-starting operations.

TABLE 2—AGGREGATED REFINERY STATUS

DATE	CLOSED	CLOSED, BUT MAY RE-OPEN	OPEN	OPEN, BUT MAY CLOSE	UNKNOWN
August 29	9	2	2	5	3
August 30	11	5	3	0	2

In response to the impacts from Hurricane Harvey, the Secretary of Energy has authorized the 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, LA site and delivered via pipeline to the Phillips 66 refinery. DOE will continue to provide assistance as deemed necessary, and will continue to review incoming requests for SPR crude oil. Should the Secretary decide to approve additional requests for an emergency exchange of crude oil from the SPR, the public will be notified.[26]

Pipelines

The primary pipeline between Petroleum Administration for Defense District (PAAD) 3 and PADD 1 is the Colonial Pipeline. Another 19 percent of the petroleum products move from PADD 3 to PADD 2 (Midwest). The primary pipeline between PAAD 3 and PADD 2 is the Explorer Pipeline.

The Colonial Pipeline is the critical petroleum pipelines in the area. The Colonial Pipeline moves 2.5 million barrels per day of product from the Gulf Coast to the southeastern United States and up to the New York City area. This total represents about one-half of the total product used along the East Coast.[27] Coastal cities, such as New York City, also import petroleum products by sea. Gasoline is imported into New York Harbor from Europe as it is in less in demand in Europe than diesel, which is exported from the United States to Europe because of lower diesel

[21] Reuters, "Citgo Lake Charles Cuts Production Due to Storm-Tightened Supply," on August 28, 2017 at https://www.reuters.com/article/us-storm-harvey-citgo-lakecharles-idUSKCN1B901M?il=0, accessed August 29, 2017.
[22] Reuters, "Phillips 66 Shuts Gasoline-Producing Unit at Westlake Refinery", on August 24, 2017 at http://www.reuters.com/article/us-refinery-operations-phillips-66-westl-idUSKCN10Z2BN, accessed August 29, 2017.
[23] Citgo, "Terminal Facilities and Pipelines", at http://www.citgotpl.com/pipelines.jsp, accessed August 31, 2017.
[24] Koch Pipeline Company, "Koch Pipeline Company Facts" at https://www.kochpipeline.com/about-us/kpl-facts/, accessed August 31, 2017.
[25] Howard Energy Partners, "Howard Energy Mexico" at http://www.howardenergypartners.com/capabilities-operations/howard-energy-mexico, accessed August 31, 2017.
[26] The Hill, "Energy Dept. taps into emergency oil reserves after Harvey", on August 31, 2017 at http://thehill.com/policy/energy-environment/348679-doe-taps-into-oil-stockpile-for-harvey, accessed August 31, 2017.
[27] Wall Street Journal, "Harvey's Lessons for America's Stretched Energy Infrastructure" on August 29, 2017 at https://www.wsj.com/articles/harveys-lessons-for-americas-stretched-energy-infrastructure-1503947171?tesla=y, accessed August 29, 2017

demand domestically. The Colonial Pipeline is the primary source of gasoline for inland population areas that cannot receive product by water (e.g., Atlanta).

The Colonial Pipeline is continuing operations, though service out of Houston has been disrupted.[28] Colonial is reporting receiving shipment from Beaumont, TX, Port Arthur, TX, and Lake Charles, LA. The Colonial Pipeline Company established a *Harvey Storm Response* website at https://harvey.colonialresponse.com/.

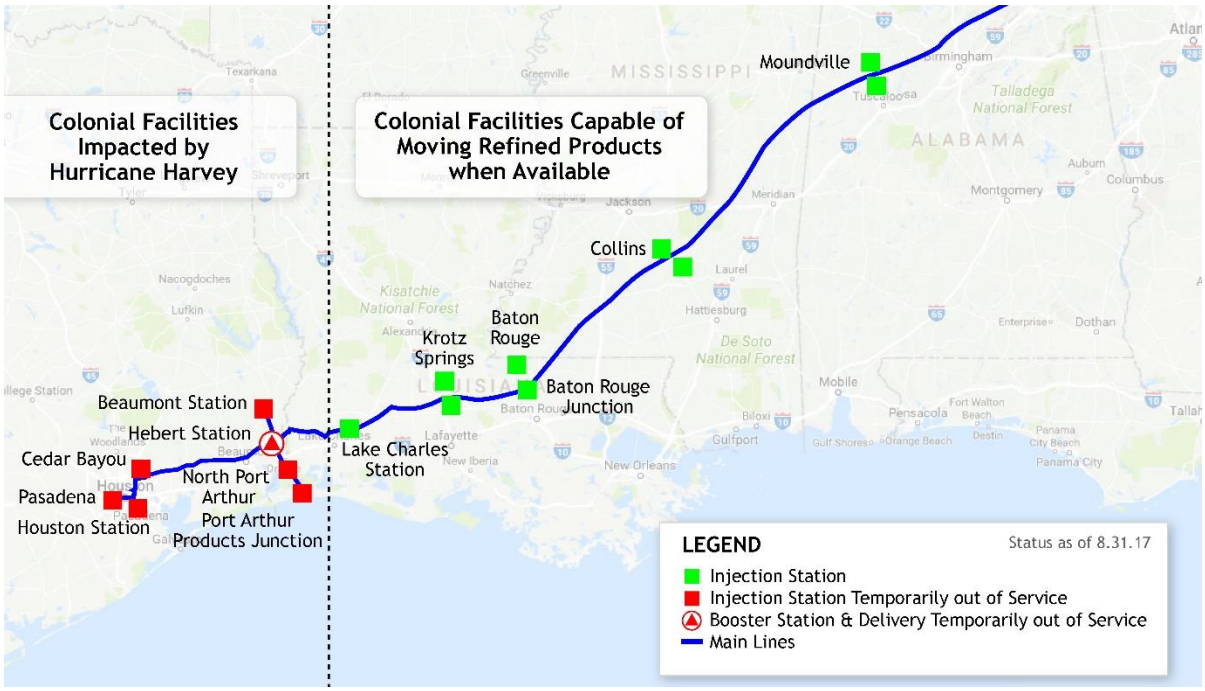


FIGURE 1: COLONIAL PIPELINE GULF COAST STATUS MAP[29]

The Colonial Pipeline reported that both lines, Line 1 that moves gasoline and Line 2 that move diesel, gasoline, and jet fuel, are operational (see Figure 1).[30] Deliveries are described as intermittent and dependent upon supply. The Colonial Pipeline Company estimates that supply out of Houston may recommence on Sunday, September 3, 2017, which would alleviate much of the concern.

The Explorer Pipeline shuttered parts of their operations because of a lack of supply.[31] The Explorer Pipeline moves 0.7 million barrels per day from Houston through Oklahoma and Missouri before terminating in Illinois. The supply on the Explorer Pipeline is so low that pressures have fallen, which led to the closure.[32] Operations are expected to resume on Friday, September 1, 2017, when supply should generate sufficient pressure. Pipelines from Cushing, OK and supply from Canada could feed refineries throughout the Midwest and mitigate some of the loss of product moving on the Explorer Pipeline.

[28] Colonial Pipeline Company, "Media Update #1" on August 28, 2017 at https://harvey.colonialresponse.com/, accessed August 29, 2017.
[29] Colonial Pipeline Company, "Media Update #4" on August 31, 2017 at https://harvey.colonialresponse.com/, accessed August 31, 2017.
[30] Colonial Pipeline Company, "Media Update #4" on August 31, 2017 at https://harvey.colonialresponse.com/, accessed August 31, 2017.
[31] New York Times, "Harvey Threatens More U.S. Gulf Refineries, Supply Constraints Emerge" on August 29, 2017 at https://www.nytimes.com/reuters/2017/08/29/business/29reuters-storm-harvey-energy.html?mcubz=1, accessed August 29, 2017.
[32] Platts, "Oil Factbox: Refinery outages, port closures spread on Harvey", on August 29, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refinery-outages-port-closures-spread-26795344, accessed August 29, 2017.

Ports

TABLE 3: PORT STATUS

PORT	STATUS
Corpus Christi, TX	Port still on track for re-opening September 4, 2017[33]
Freeport, TX	Port re-opened to some traffic though expected date for full re-opening has not been determined[34]
Houston-Galveston, TX	Port re-opened to some traffic though expected date for full re-opening has not been determined[35]
Port Arthur, TX	Condition Yankee Monday, meaning that they are closed to inbound traffic.[36]
Lake Charles, LA	Condition Yankee Monday, meaning that they are closed to inbound traffic.[37]

Product Availability

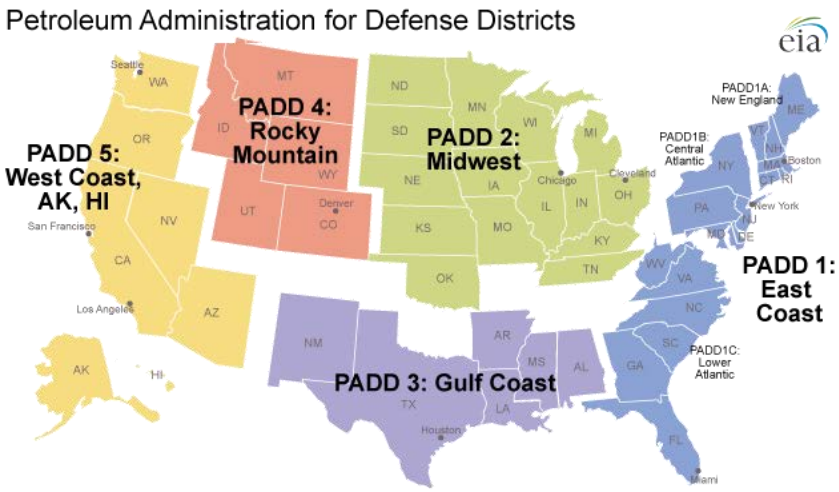


FIGURE 2— PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICTS[38]

[33] PortStrategy, "Port Corpus Christi Out of Action Until 4 September," on August 30, 2017 at http://www.portstrategy.com/news101/world/americas/port-corpus-christi-out-of-action-until-4-september, accessed August 31, 2017.
[34] Houston Chronicle, "Coast Guard Clears Ports to Reopen with Restrictions", on August 30, 2017 at http://www.houstonchronicle.com/business/article/Coast-Guard-clears-ports-to-reopen-with-12162976.php, accessed August 31, 2017.
[35] Houston Chronicle, "Coast Guard Clears Ports to Reopen with Restrictions", on August 30, 2017 at http://www.houstonchronicle.com/business/article/Coast-Guard-clears-ports-to-reopen-with-12162976.php, accessed August 31, 2017.
[36] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[37] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey-Related Flooding," on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[38] DOE/EIA, "PADD regions enable regional analysis of petroleum product supply and movements," on February 7, 2012 at "https://www.eia.gov/petroleum/marketing/monthly/pdf/paddmap.pdf, assessed August 30, 2017.

TABLE 4: GASOLINE INVENTORY[39]

REGION (SEE FIGURE 1)	GASOLINE STOCK (MILLION OF BARRELS; AS OF AUGUST 25, 2017)
New England	4.3
Central Atlantic	31.2
Lower Atlantic	27.3
Cushing, OK	57.2
PADD 3	82.4
PADD 4	6.4
PADD 5	26.2

The United States has about 23.7 days of supply on hand, a level both consistent over the past 7 weeks and with historical seasonal levels.[40] Gasoline supplies may remain sufficient because of competing forces. The Texas refineries have been shuttered for approximately 5 days, which should lower supply. However, other refineries remain operational including some, in other parts of the country, which are increasing production.[41] Further, there is demand destruction in the areas affected by Hurricane Harvey.

In the Lower Atlantic Region, that includes the States from Florida to West Virginia, gasoline stocks are running one percent higher than last year and in-line with historical averages (see table 4).

European, Middle Eastern and Asian refiners, anticipating that gasoline prices will be higher in the United States than Europe or Asia, are seeking to move gasoline to the United States.[42,43] Rates for petroleum tankers have doubled over the past week as the U.S. East Coast and countries that receive petroleum products from the U.S. Gulf Coast, Mexico, Brazil, and members of the European Union, are competing for tankers to move any available gasoline and diesel.[44] Much of the supply is expected to come out of the Persian Gulf, where there is excess refining capacity. [45] Asian refineries are expecting to move petroleum product to North and South America. [46]

Fuel supplies may be in short supply in areas that cannot receive supply by sea or rail. Fuel trucks could move fuel to areas that are not accessible by more conventional means, but there is a limitation on the number of trucks and costs will be far higher.

On Wednesday, August 30, 2017, the U.S. Environmental Protection Agency issued gasoline waivers to the following States and the District of Columbia in order to make it easier to move gasoline to areas in need. (table 5)[47]

[39] DOE/EIA, "Total Stocks" on August 30, 2017 at https://www.eia.gov/dnav/pet/pet_stoc_wstk_dcu_r1x_w.htm, accessed August 31, 2017.
[40] DOE/EIA, "Weekly U.S. Days of Supply of Total Gasoline," on August 30, 2017 at https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=W_EPM0_VSD_NUS_DAYS&f=W, accessed August 31, 2017.
[41] New York Times, "Harvey Threatens More U.S. Gulf Refineries, Supply Constraints Emerge" on August 29, 2017 at https://www.nytimes.com/reuters/2017/08/29/business/29reuters-storm-harvey-energy.html?mcubz=1, accessed August 29, 2017.
[42] CNBC, "Europe Gasoline Margins at 4 ½ Month High in Harvey's Wake", on August 29, 2017 at https://www.cnbc.com/2017/08/29/reuters-america-european-gasoline-margins-at-4-12-month-high-in-harveys-wake.html, accessed August 29, 2017.
[43] Platts, "Oil Factbox: Refineries Now Facing Brunt of Harvey Related Flooding", on August 28, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-refineries-now-facing-brunt-of-harvey-21772848, accessed August 29, 2017.
[44] TradeWinds, "Spot Tanker Markets Gain More on Harvey Outages", on August 30, 2017 at http://www.tradewindsnews.com/tankers/1337444/spot-tanker-markets-gain-more-on-harvey-outages, accessed August 31, 2017.
[45] TradeWinds, "Spot Tanker Markets Gain More on Harvey Outages", on August 30, 2017 at http://www.tradewindsnews.com/tankers/1337444/spot-tanker-markets-gain-more-on-harvey-outages, accessed August 31, 2017.
[46] Platts, "Oil factbox: USGC refinery outages, port closures continue to increase," on August 30, 2017 at https://www.platts.com/latest-news/oil/newyork/oil-factbox-usgc-refinery-outages-port-closures-26796285, accessed August 31, 2017.
[47] U.S. Environmental Protection Agency, "Fuel Waivers" on August 30, 2017 at https://www.epa.gov/enforcement/fuel-waivers, accessed August 31, 2017.

TABLE 5: STATES RECEIVING WAIVERS

Alabama	Florida	Georgia	Kentucky	Louisiana	Maryland
Mississippi	North Carolina	South Carolina	Tennessee	Texas	Virginia

Air quality considerations require that gasoline blends change between the winter and the summer and, with respect to summer blends, there are differences across States and cities. [48] The waiver removes these restrictions until at least September 15, 2017.

Gasoline Prices

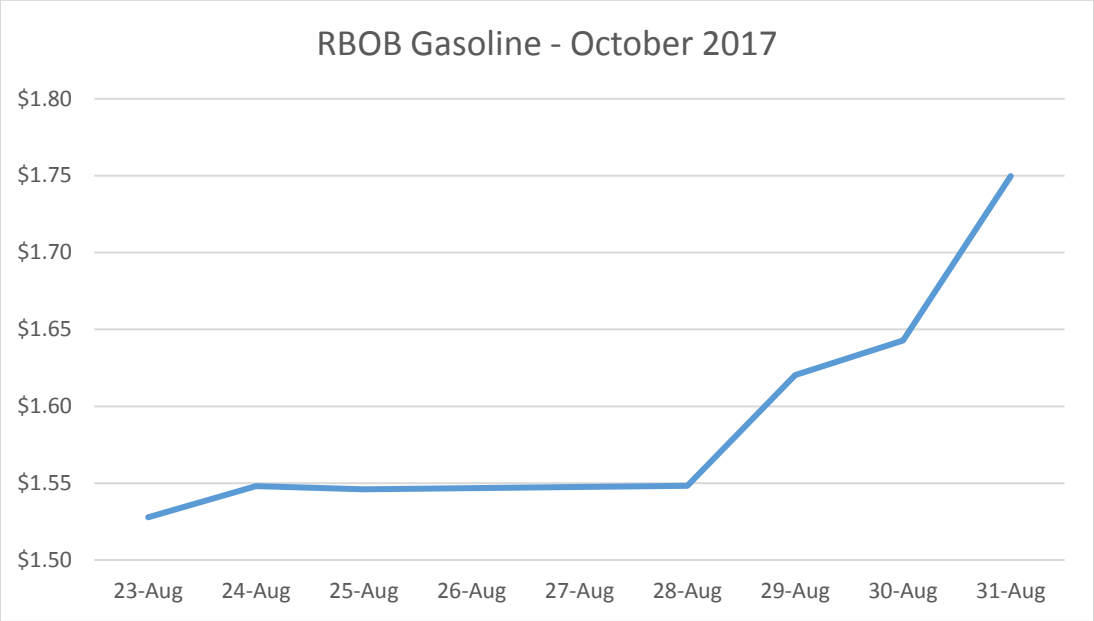


FIGURE 3: RBOB GASOLINE FUTURES PRICE

Gasoline futures prices, called Gasoline Reformulated Blendstock for Oxygenate Blending (RBOB), moved slightly between Wednesday, August 23, 2017—the day before Tropical Storm Harvey was upgraded to a hurricane—through Monday August 28, 2017 (figure 3).[49] Starting Tuesday, August 29, 2017 through the latest price on Thursday, August 31, 2017, gasoline prices have increased by about $0.20 per gallon. As of today, Thursday, August 31, 2017, prices today are up almost 8 percent.

[48] U.S. Environmental Protection Agency, "Gasoline Reid Vapor Pressure" athttps://www.epa.gov/gasoline-standards/gasoline-reid-vapor-pressure, accessed August 31, 2017.
[49] Gasoline RBOB pricing can be found at: http://www.cmegroup.com/trading/energy/refined-products/rbob-gasoline.html.

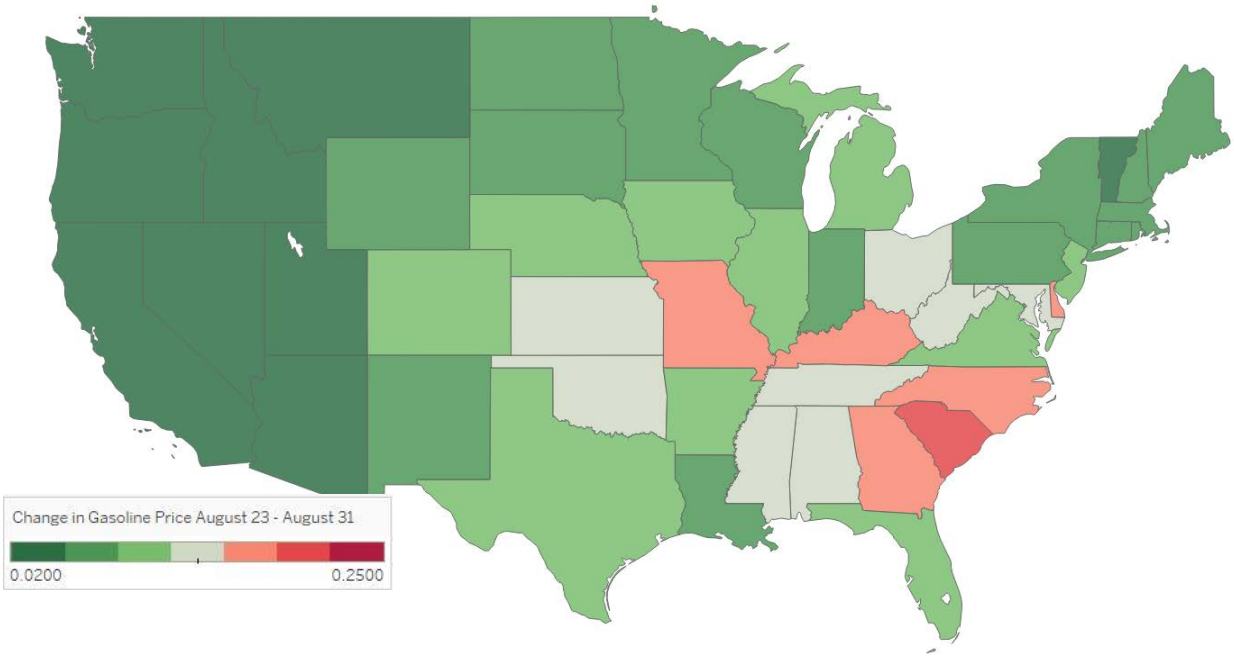


FIGURE 4: CHANGE IN GASOLINE PRICES AUGUST 24 - AUGUST 31[50]

Gasbuddy reported that gas prices nationwide have risen $0.113 per gallon over the past week.[51] As figure 4 shows, gasoline price changes are occurring in areas most dependent upon the Colonial Pipeline. South Carolina, Delaware, North Carolina, Georgia, and Kentucky have all seen prices rise by more than $0.17 per gallon. Prices in Alabama and Maryland have risen by $0.13 per gallon. Prices have risen by $0.16 in Missouri and $0.13 in Oklahoma likely due to the shutdown of the Explorer Pipeline.

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[50] GasBuddy, "United States Average for Regular" on August 31, 2017 at http://fuelinsights.gasbuddy.com/, accessed August 31, 2017.
[51] Ibid.

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Homeland Security

National Protection and Programs Directorate

NPPD Customer Feedback Survey

1. Product Title: Tropical Storm Harvey - Petroleum Availability - Update 1

2. Please rate your satisfaction with each of the following:

	Very Satisfied (5)	Somewhat Satisfied (4)	Neither Satisfied Nor Dissatisfied (3)	Somewhat Dissatisfied (2)	Very Dissatisfied (1)
Timeliness of product	○	○	○	○	○
Relevance of product	○	○	○	○	○

3. How did you use this product in support of your mission?

☐ Yes ☐ No Integrated into one of my own organization's information or analytic products

If so, which products?

☐ Yes ☐ No Used contents to improve my own organization's security or resiliency efforts or plans

If so, which efforts?

☐ Yes ☐ No Shared contents with government, private sector, or other partners

If so, which partners?

☐ Yes ☐ No Other uses (please specify)

4. Do you have questions that this product didn't answer?

Yes ○ No ○ (Please specify)

5. How could this product be improved?

6. Would you like to see more on this topic?

Yes ○ No ○ (Please specify)

7. Are there other topics or questions you would like to see addressed by OCIA?

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