



# ENERGY ASSURANCE DAILY

Tuesday Evening, June 28, 2016

## ***Major Developments***

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### **Explosions at Enterprise's 1.5 Bcf/d Natural Gas Plant in Pascagoula, Mississippi on June 27 Prompt Offshore Well Shut-ins, Pipeline Force Majeure June 28**

Enterprise Products Partners L.P. is investigating the cause of two explosions and resulting fires that occurred on the evening of June 27 at its natural gas processing facility in Pascagoula, Mississippi. There were no injuries nor impacts to the surrounding community and the fire was restricted to inside the facility's perimeter. The situation has since been brought under control and the plant has been shut down, however; at least two offshore production platforms and an offshore natural gas transmission pipeline have halted operations as a result. The Pascagoula plant receives natural gas from third party pipelines, including offshore pipelines from Gulf of Mexico production platforms. According to Enterprise, the facility is comprised of three processing trains with approximately 1.5 Bcf/d of capacity and was averaging approximately 400 MMcf/d inlet volumes. Enterprise said it is working with its customers and third party facility operators to provide situational awareness and determine other available options while the Pascagoula plant is out of service. On Tuesday morning, Destin Pipeline declared a force majeure event due to Enterprise's inability to process gas at the plant. The pipeline company said it was unable to provide gas transportation service from all of its offshore receipt locations and is evaluating alternative flow options for its shippers. Later on Tuesday, Enterprise advised Destin Pipeline that the plant would be inoperable until a full damage assessment is completed. Destin Pipeline said it was evaluating shipper options for alternative offshore transportation services, including flow into the Viosca Knoll Gathering system. The 225-mile Destin gas pipeline system can carry 1.2 Bcf/d from offshore producers to the Pascagoula plant, and then further north to interconnections with six major interstate gas transmission lines. The Viosca Knoll Gathering system is capable of delivering approximately 600 MMcf/d of gas per day into the facilities of a number of major onshore interstate pipelines including Tennessee Gas Pipeline, Columbia Gulf Transmission, Southern Natural Gas, Transcontinental Gas Pipe Line and Destin Pipeline Company. Additionally, offshore producers Murphy Oil and LLOG also said they were shutting in crude oil and natural gas production wells as a result of the processing plant outage. Murphy said on Tuesday that its Thunder Hawk platform was shut in, and that plans to flow natural gas to an alternate processing facility were underway with minimal disruptions expected. The Thunder Hawk platform, which is owned by SBM Offshore and operated by Murphy Oil, produces approximately 70 MMcf/d of natural gas and 45,000 b/d of crude oil from the Mississippi Canyon offshore field. LLOG said it was in the process of shutting down its Delta House floating production system and would resume operations once downstream issues were resolved. LLOG's Delta House system, also located in the Mississippi Canyon field, has a production handling capacity of 240 MMcf/d of natural gas and 100,000 b/d of crude oil with initial production established during the second quarter of 2015. At this time, the number of production wells that were shut in as well as the actual volumes of curtailed crude oil and natural gas production are not available.

<http://www.businesswire.com/news/home/20160628006314/en>

<https://bp.trellisenergy.com/ptms/home.do>

[http://www.sbmoffshore.com/wp-content/uploads/2013/07/THUNDER\\_HAWK\\_Murphy\\_USA.pdf](http://www.sbmoffshore.com/wp-content/uploads/2013/07/THUNDER_HAWK_Murphy_USA.pdf)

[http://www.llog.com/images/pdfs/2015-01\\_delta\\_house\\_pub.pdf](http://www.llog.com/images/pdfs/2015-01_delta_house_pub.pdf)

<https://www.sec.gov/Archives/edgar/data/1022321/000119312515254288/d81876dex993.htm>

Reuters, 16:09 June 28, 2016

Reuters, 12:09 June 28, 2016

Reuters, 11:23 June 28, 2016

Reuters, 10:14 June 28, 2016

### **LADWP Approves Energy Savings Program in Response to Limited Natural Gas Availability from SoCalGas' Aliso Canyon Storage Facility in California June 21**

The Los Angeles Department of Water and Power (LADWP) will offer a new SummerShift energy saving program for large commercial and industrial customers in order to mitigate the risk of outages this summer resulting from the limited availability of natural gas from Southern California Gas Co.'s (SoCalGas) Aliso Canyon natural gas storage facility. With the current moratorium on gas injections and reduced capacity at Aliso Canyon, there is a heightened threat of outages this summer, especially during times of extreme heat when gas and electricity are in higher demand, LADWP's Board President said. LADWP has identified a potential savings of up to 1,000 MW if all 5,000 eligible medium and large commercial and industrial customers were to participate in reducing or shifting their electricity use during high demand, peak hours. If only 20 to 30 percent participated, it would save from 200 to 300 MW at an estimated cost of \$3 million per month. The Aliso Canyon storage field plays an essential role in maintaining both natural gas and electric service reliability in the greater Los Angeles area. LADWP and other utilities serving the region depend upon this facility to maintain power reliability when energy use spikes during hot weather. Gas is used not only in homes and businesses, but is also primary fuel for gas-fired electric power plants. Aliso Canyon is the only gas storage facility that can immediately respond to rapid changes in gas supply for 17 gas-fired generating plants, including four generating stations operated by LADWP in the Los Angeles basin.

<http://www.ladwpnews.com/go/doc/1475/2857386/>

### **Update: Entergy Identifies, Stops Flow of Lubricating Oil at Its 813 MW FitzPatrick Nuclear Power Plant in New York June 27**

Entergy personnel on Monday identified the source of oil released on Sunday at its Fitzpatrick nuclear power plant in Scriba, New York to the site's discharge canal and stopped the flow. A preliminary investigation has determined a tank that stores lubrication oil overfilled due to an apparent equipment failure. A pipe that acts as an air vent from the tank exits onto a building roof. Excess oil flowed through the vent pipe and pooled on the roof, then apparently migrated to a roof drain and eventually into Lake Ontario. Equipment that discharges water to the lake has been turned off, and there is no apparent ongoing release of oil. FitzPatrick's site vice president the source of the oil was identified, the leak was stopped, and protective absorbent material and barriers were put in place to help mitigate additional oil from reaching the lake. Site personnel and environmental contractors are cleaning up the lubricating oil from the building and working within the discharge canal to absorb and contain any oil that reached the canal, which flows to Lake Ontario. FitzPatrick nuclear power plant has been shut down since Friday afternoon, when control room operators removed the unit from service following a loss of power supply affecting water pumps at the plant.

<http://www.entergynewsroom.com/latest-news/entergy-identifies-stops-flow-lubricating-oil-its-jamesfitzpatrick-nuclear-power-plant/>

### **PSEG's 1,160 MW Salem Nuclear Unit 2 in New Jersey Shut June 28**

Public Service Enterprise Group (PSEG) said Unit 2 at its Salem nuclear power plant in New Jersey automatically shut early on Tuesday due to a protection signal activating on the generator on the non-nuclear side of the plant. A PSEG spokesman said troubleshooting was in progress but noted the company does not discuss outage durations or provide estimates on when its plants will return to service. The 1,166 MW Unit 1 at Salem has remained out of service for a refueling and maintenance outage since mid-April. The spokesman said he could not say when Unit 1 would return to service but noted the company extended the refueling outage to inspect and repair some bolts in the reactor. There was increased significance for this specific inspection after a recent experience at Entergy's 2,069 MW Indian Point nuclear plant in New York, where bolt degradation was discovered during a refueling outage on Unit 2, according to the spokesman. Entergy said its Indian Point Unit 2 shut March 7 and returned to service June 17 following a refueling and bolt upgrade where 278 bolts were replaced during the outage. PSEG, which inspects the reactor bolts during each refueling outage, said it identified degradation issues with a series of baffle bolts located on a metal insert liner inside its Salmen Unit 1. PSEG said 18 of the metal insert liner's 832 baffle bolts exhibited degradation. The insert liner is a metal structure that holds and keeps the fuel assemblies in place during operation and helps direct water flow through the reactor. It consists of 28 large metal plates that are 1.125 inches thick and stand over 13 feet tall. The baffle bolts are 2 inches long with bolt heads measuring over half an inch in diameter. PSEG was scheduled to conduct ultrasonic testing of the baffle bolts in 2019 but based on the visual inspections, decided to conduct ultrasonic testing of the bolts now.

Reuters, 10:59 June 28, 2016

### **Update: Talen Energy's 1,105 MW Susquehanna Nuclear Unit 1 in Pennsylvania Restarts, Ramps Up to 50 Percent June 27**

Talen Energy's Susquehanna nuclear unit 1 was restarted on Monday after it was manually shut down on June 6 due to a water leak inside the unit's containment structure. During an inspection of the area, a second minor leak was identified on June 8 from a pipe beneath the reactor vessel. Unit 2 at the plant remained at full power.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

<http://talenergy.investorroom.com/2016-06-27-Susquehanna-Unit-1-Reconnected-to-the-Power-Grid-Following-Maintenance-Outage>

### **Update: TVA's 1,125 MW Watts Bar Nuclear Unit 1 in Tennessee Ramps Up to 70 Percent by June 28**

On the morning of June 27 the unit was operating at 60 percent, reduced from 84 percent on June 25.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Update: Entergy's 966 MW River Bend Nuclear Unit 1 in Louisiana at Full Power by June 28**

On the morning of June 27 the unit was operating at 72 percent after restarting on June 25. The unit shut from full power on June 11 due to an unknown cause.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Update: OPPD's 478 MW Fort Calhoun Nuclear Unit in Nebraska Restarts June 27, Ramps Up to 90 Percent by June 28**

On the morning of June 27 the unit had restarted and ramped up to 11 percent. The unit was shut from full power due to a turbine trip on June 22.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

<http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2016/20160623en.html>

<http://www.oppd.com/news-resources/news-releases/2016/june/oppd-s-fort-calhoun-station-temporarily-taken-offline/>

### **Exelon Says Small Pump Fire Extinguished at Its 1,800 MW Dresden Nuclear Plant in Illinois June 27**

Exelon on Monday said operators extinguished a small fire, which lasted three minutes, on a pump at its Dresden nuclear plant. The fire was contained to the pump and did not affect the operation of the plant. Both reactors remain at full power.

<http://www.exeloncorp.com/newsroom/dresden-small-fire-on-pump>

### **Update: RRI Energy's 320 MW Etiwanda Gas-fired Unit 4 in California Returns to Service by June 27**

The unit returned from an unplanned outage that began on June 25.

<http://content.caiso.com/unitstatus/data/unitstatus201606271515.html>

### **Update: AES's 496 MW Redondo Gas-fired Unit 8 in California Returns to Service by June 27**

The unit returned from an unplanned outage that began on June 24.

<http://content.caiso.com/unitstatus/data/unitstatus201606271515.html>

### **AES's 226 MW Huntington Beach Gas-fired Unit 1 in California Shut by June 27**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201606271515.html>

### **Mesquite's 165 MW Solar Unit 1 in California Shut by June 27**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201606271515.html>

### **AES's 506 MW Redondo Gas-fired Unit 7 in California Shut by June 27**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201606271515.html>

## **Mirant's 530 MW Pittsburg Gas-fired Unit 7 in California Reduced by June 27**

The unit entered an unplanned curtailment of 130 MW.

<http://content.aiso.com/unitstatus/data/unitstatus201606271515.html>

## **Petroleum**

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### **Update: U.S. Coast Guard Reopens Section of Red River in Louisiana after Barge Incident June 27**

The U.S. Coast Guard (USCG) said it reopened a section of the Red River in New Orleans, Louisiana for vessel traffic on Monday, after its closure due to a barge incident. The river was shut on Sunday from mile marker 40 to 42 after a barge ran aground at mile marker 41. The Red River Express successfully lightered the grounded barge and re-floated it, the USCG said. There was no information on the cargo carried by the barge.

<http://www.uscgnews.com/go/doc/4007/2859122/>

### **PBF Energy Says Operations Stable after Upset at Its 182,200 b/d Delaware City, Delaware Refinery June 28**

PBF Energy on Tuesday said operations were stable at its Delaware City, Delaware refinery after the flare system was activated due to an operational upset, earlier Tuesday, according to a community information line.

Reuters, 9:43 June 28, 2016

### **Update: Valero's 190,000 b/d Memphis, Tennessee Refinery Running at 60 Percent Capacity June 28 – Sources**

Valero Energy Corp's Memphis, Tennessee refinery was running at 60 percent capacity on Tuesday as repairs were underway on a shut reformer, sources familiar with plant operations said. The refinery's 65,000 b/d fluidic catalytic cracking unit was running at about 50,000 b/d, the sources said.

Reuters, 12:09 June 28, 2016

### **Phillips 66 to Restart Crude Unit at Its 336,000 b/d Wood River, Illinois Refinery within 48 Hours – Source**

Phillips 66 plans on restarting a 64,000b/d crude unit at its Wood River, Illinois refinery within the next 48 hours after it was unexpectedly shut down on Monday morning, according to a source familiar with the plant's operations.

Reuters, 12:22 June 27, 2016

### **Update: LyondellBasell Shifts Workers in Push to Fix Coker at Its 263,776 b/d Houston, Texas Refinery – Sources**

LyondellBasell Industries shifted contract workers within its Houston, Texas refinery in order to finish repairs to the small coking unit by the end of this week, Gulf Coast market sources said on Monday. Last week, repairs to the 42,000 b/d coker's piping following an April 8 fire were expected to continue into the first half of July, missing a target date set by company executives to complete the work by the end of the second quarter. The April 8 fire broke out when piping on the unit ruptured. An inspection of piping on the unit found some of it to be decades old. Pipe of a different composition with greater resistance to corrosion was purchased and is being installed, the sources said.

Reuters, 15:59 June 27, 2016

### **Citgo Reports FCCU Shutdown at Its 157,500 b/d Corpus Christi East, Texas Refinery June 28**

Citgo Petroleum Corp reported a fluid catalytic cracking unit (FCCU) shut due to an equipment malfunction at its Corpus Christi East, Texas, refinery, according to a filing with the Texas Commission on Environmental Quality.

Citgo said the unit was safely shut and related opacity, which exceeded the reportable quantity, ceased.

Reuters, 9:17 June 28, 2016

### **Imperial Oil Reports Fire at Its 121,000 b/d Sarnia, Ontario Refinery June 27**

Imperial Oil on Monday notified local emergency officials of a fire in the substation at its Sarnia, Ontario refinery, according to the city's fire department. The potential impact to production is not currently known, a source said. The company classified the fire as a "code 8," which means they are notifying local emergency officials but not requesting additional support, the city's fire department said.

<http://ca.reuters.com/article/businessNews/idCAKCN0ZD2BQ>

## Tesoro Acquires 20,000 b/d Dakota Prairie Refinery in North Dakota June 28

Tesoro Corporation, through its affiliate Tesoro Refining & Marketing Company, bought the Dakota Prairie refinery near Dickinson, North Dakota from MDU Resources Group Inc. and Calumet Specialty Products Partners. The refinery began selling fuel last year but hasn't been profitable due to the slumping oil industry and low diesel prices. The plant lost \$7.2 million in the first three months of the year, and officials in May announced plans to operate it at only 75 percent capacity. MDU Resources subsidiary WBI Energy Inc. on Monday bought out a subsidiary of Calumet and sold the refinery to a subsidiary of Tesoro for an undisclosed price, the companies.

<http://phx.corporate-ir.net/phoenix.zhtml?c=79122&p=RssLanding&cat=news&id=2180413>

Reuters, 10:16 June 28, 2016

## Canada Oil Sands Output to Grow to 3.4 Million b/d by 2025 – IHS Energy

Canada's oil sands production will grow by 42 percent to 3.4 million b/d by 2025, most of which will come from the expansion of existing facilities rather than new projects, analysts at IHS Energy said on Monday. Low crude prices have forced producers such as Cenovus Energy and Royal Dutch Shell to stop sanctioning new oil sands plants, while all projects currently under development will be completed by 2018, IHS said.

[http://www.rigzone.com/news/oil\\_gas/a/145310/Report\\_Canada\\_Oil\\_Sands\\_Output\\_to\\_Grow\\_42\\_by\\_2025](http://www.rigzone.com/news/oil_gas/a/145310/Report_Canada_Oil_Sands_Output_to_Grow_42_by_2025)

## Natural Gas

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See Major Developments.

## Other News

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Nothing to report.

## International News

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### Nigeria Oil Output Rises to 1.9 Million b/d – NNPC

Oil production in Nigeria has risen to about 1.9 million b/d, from 1.6 million b/d, due to repairs and more than a week having passed since a major pipeline attack in the Niger Delta, a spokesman for the Nigerian National Petroleum Corporation (NNPC) said on Monday. Militants who say they want a greater share of Nigeria's oil wealth to go to the impoverished Delta region have carried out a series of attacks on pipelines in the last few months. Nigeria has seen production fall from 2.2 million b/d at the start of the year to 1.6 million b/d in early June.

[http://www.rigzone.com/news/oil\\_gas/a/145311/NNPC\\_Nigeria\\_Oil\\_Output\\_Rises\\_to\\_19\\_Million\\_Barrels](http://www.rigzone.com/news/oil_gas/a/145311/NNPC_Nigeria_Oil_Output_Rises_to_19_Million_Barrels)

### French Workers' Strike Cuts 2,350 MW in Nuclear Output June 28 – CGT Union

French nuclear power output was cut by 2,350 MW on Tuesday as CGT trade union workers at utility EDF joined a nationwide protest against planned labor reforms, the union said.

Reuters, 10:46 June 28, 2016

## Energy Prices

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U.S. Oil and Gas Prices			
June 28, 2016			
	Today	Week Ago	Year Ago
<b>CRUDE OIL</b>			
West Texas Intermediate U.S. \$/Barrel	47.38	48.90	59.36
<b>NATURAL GAS</b>			
Henry Hub \$/Million Btu	2.76	2.73	2.79

Source: Reuters

## Links

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***This Week in Petroleum*** from the U.S. Energy Information Administration (EIA)

<http://www.eia.gov/oog/info/twip/twip.asp>

Updated every Wednesday.

***Weekly Petroleum Status Report*** from EIA

[http://www.eia.gov/oil\\_gas/petroleum/data\\_publications/weekly\\_petroleum\\_status\\_report/wpsr.html](http://www.eia.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html)

Updated after 10:30 AM & 1:00 PM ET every Wednesday.

***Natural Gas Weekly Update*** from EIA

<http://www.eia.gov/oog/info/ngw/ngupdate.asp>

Updated after 2:00 PM ET every Thursday.

### ENERGY ASSURANCE DAILY

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<http://www.oe.netl.doe.gov/ead.aspx>

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