January 24, 2018

Refinery Maintenance Report

*updated

PADD1 / East Coast

**PBF Energy** – OPIS understands from an industry source that as of at least Jan. 11 the company’s 190,200-b/d refinery in Delaware City, Del., could be experiencing an operational problem with the 54,500-b/d coker. The company wasn’t immediately available for comment. OPIS notes that PBF filed a report to Delaware environmental regulators on Jan. 9 regarding 18 minutes of sulfur dioxide emissions resulting from a problem with a compressor. Neither the processing unit nor its operating status was specified in the report.

**Phillips 66** – The timing of planned maintenance on the FCC at the company’s 251,000-b/d Bayway refinery in Linden, N.J., is currently aligned with work on the FCC modernization project, taking place in February and much of March, an industry source told OPIS. Upgrade of the 145,000-b/d unit is expected to increase clean product yield by some 4,000 b/d. Phillips has long held to project completion in the first half of 2018.

**United Refining** – The company’s 70,000-b/d refinery in Warren, Pa., is planning some 40 days of plant-wide maintenance to begin in the latter part of Q1 2018, according to investment bank Tudor Pickering Holt, citing published reports. The refinery in the northwest corner of the state serves markets in Pennsylvania and parts of New York and Ohio.

PADD2 / Midwest

**CITGO** – The company’s 185,200-b/d Lemont, Ill., refinery near Chicago experienced an operating unit pump failure on Jan. 1 which led to flaring and a report to the state’s emergency management agency. Extreme cold temperatures – negative 9 deg F – may have led to the failure and emissions were ongoing at the time the report was made. The operating unit was not identified and CITGO was not immediately available for comment.

**ExxonMobil** – Timing for crude unit repairs at ExxonMobil’s Joliet refinery in Illinois is tilted toward later Q1, a market source told OPIS on Dec. 20, specifically the month of March and perhaps extending into April. As previously reported, the crude unit at the 260,000-b/d Joliet plant has been operating at reduced rates, likely following a Dec. 13 process upset. A filing about the upset to state emergency officials didn’t identify the affected unit or actions taken. However, trading sources told OPIS the rate reduction at the crude unit would continue until repairs could be made in Q1.

**HollyFrontier** – Early-2018 maintenance at the company’s 151,000-b/d refinery in El Dorado, Kan., appears to have been deferred to the end of the year, according to HollyFrontier’s recent Investor Day presentation. Previous published reports had said a full plant turnaround was scheduled to take place over 46 days of portions of Q1 and Q2, but the company said on Dec. 7 that El Dorado would see a turnaround in Q4 2018. No other details were provided.

**HollyFrontier** – As of at least Jan. 9, the company had shut a crude unit at its Tulsa, Okla., refinery for “short-term repairs,” a market source told OPIS, adding the unit was likely the West Plant CDU. Duration of the work wasn’t clear; the source noted that adjunct operations were shut for related work.

As previously reported, an autumn 2017 turnaround was pushed back to February 2018. The work was seen lasting 50 days and was to involve the 91,020-b/d crude unit in the West Plant (and perhaps a reformer and coker as well). EIA listed (as of Jan. 1, 2017) East Plant crude

All refinery and processing unit capacity figures are given in barrels per stream day (as of Jan. 1, 2017) per the EIA Refinery Capacity Report from June 2017. Material is from the best possible sources, but because of the reticence of many companies to confirm unit outages, it cannot be guaranteed.
capacity of 75,500 b/d as idle. HollyFrontier gives the refinery’s nameplate capacity as 125,000 b/d.

**Husky** – A unit at the company’s 170,000-b/d refinery in Lima, Ohio, tripped on Jan. 7, “resulting in a larger flare than usual,” a spokesperson told OPIS, confirming media reports. Efforts were underway on Jan. 8 to bring the unit – not identified by Husky – back on line.

As previously reported, Husky carried out a planned turnaround during November. The work involved an FCC and crude unit, according to an industry source.

**Husky** – On Dec. 4, the company said that a project to increase heavy oil processing capacity by up to 5,000 b/d at its 50,000-b/d Superior refinery in Wisconsin will be completed in the first half of 2018. Husky took ownership of the plant formerly owned by Calumet on Nov. 9. The first phase of the “heavying up” project took place during a major turnaround in Q2. Start and end dates for the 2018 work remain unclear.

**Marathon Petroleum** – The company’s 100,000-b/d refinery in Canton, Ohio, experienced flaring on Jan. 16 that spurred a number of residents to erroneously report fires in the area, according to local news reports. A fire official told the Canton Repository the flaring was due to a compressor problem. MPC declined to comment. As of presstime, the identity of any processing units affected and their operating status wasn’t known.

**Marathon Petroleum** – Reports of a coker problem at the company’s 245,000-b/d refinery in Robinson, Ill., were said spurring some of the wave of refiner spot market buying during the third week of December, market sources told OPIS. Total coking capacity of 30,000 b/d was said at least partially affected by an operations issue requiring repairs. As of Dec. 20, duration of the operations issue wasn’t clear.

**PBF Energy** – As of early January OPIS understands that the turnaround set for Q1 at the company’s 188,000-b/d refinery in Toledo, Ohio is seen taking place over three to six weeks and could begin as early as February and possibly stretch into April. Units to see work include a 52,000-b/d hydrocracker, and possibly also a 32,000-b/d jet fuel hydrotreater and a crude unit.

**Phillips 66** – Some 40 days of planned maintenance at the company’s 330,000-b/d Wood River refinery in Illinois is seen beginning in late February, a market source told OPIS. As previously reported by OPIS, work on an FCC modernization project is also taking place during the turnaround. According to Energy News Today, units seeing maintenance are a crude unit, coker and an FCC.

As previously reported, “minor” repairs were underway as of at least Jan. 4 following a “small process fire” in a crude unit on Dec. 29. Reuters, citing an unnamed source, reported a crude unit and coker were down following both a line freeze amid frigid temperatures and the fire.

**PADD3 / Gulf Coast**

**Alon** – A power failure occurred at the 74,000 b/d Big Spring refinery in Texas on Dec. 23. An emissions filing with the Texas Commission on Environmental Quality (TCEQ) said the power failure resulted in the shutdown of north side process units. The report listed the No. 2 sulfur recovery unit and the North Side flare as sources of the emissions.

**Andeavor** – As of Oct. 24, the company’s 134,000-b/d refinery in El Paso, Texas, was carrying out planned maintenance, Andeavor told OPIS, confirming plans for work in October first made public by former owner Western in May. A spokesperson declined to provide details on the work, but based on previous comments, a crude unit there is to be expanded (by 3,500 b/d), along with related downstream units such as an alkylation unit (by 1,000 b/d), idling about half of the refinery during the maintenance. The expansion was seen boosting total El Paso capacity to about 140,000 b/d and increasing the plant’s ability to make Phoenix-grade AZRBOB gasoline by 2,500 b/d.

**CITGO** – The company’s 163,500-b/d refinery in Corpus Christi, Texas, experienced a Jan. 16 process upset at the larger of two FCCs (70,000 b/d) that forced its shutdown, CITGO said. The spokesperson didn’t indicate the expected duration of the outage.
As previously reported, OPIS understands that the refinery’s Q1 reformer turnaround (originally scheduled for October 2017) will take place during March. The unit seeing work is the larger of two reformers – 36,500 b/d.

The roughly three-week outage of the smaller reformer (15,000 b/d) concluded in early January, according to market sources.

**CITGO** – The company’s 440,000-b/d refinery in Lake Charles, La., plans to take down one of two smaller reformers for a few weeks of scheduled maintenance around Jan. 20, OPIS understands. The EIA lists low-pressure reforming capacity at the refinery as 60,000 b/d and high-pressure reforming capacity as 53,200 b/d.

**Deer Park** – As of Jan. 23, the 340,000-b/d Houston-area Shell-Pemex joint venture refinery was beginning a turnaround according to market sources, almost three weeks later than previously expected. Units to see work over four to six weeks were both crude units (to be taken down sequentially) and a coker which had seen several upsets in recent weeks, sources said.

**Delek** – The company plans to spend $103 million to add a 6,000-bbl alkylation unit to its 83,000-b/d refinery in Krotz Springs, La., Delek disclosed in early November 2017. Work is already underway with completion of the project estimated for Q1 2019. The unit will aid in the conversion of low-value product into gasoline, the production of multiple summer gasoline grades, and increase octane which will allow the refinery to produce premium gasoline.

**Delek** – As of Jan. 22, the company’s 75,000-b/d refinery in Tyler, Texas, was offline following an operational event caused by conditions of severe cold in mid-January. Delek said personnel were working to restore normal operations and were also doing some maintenance. Downtime was expected to extend through Jan. 28. As a result, the refinery was out of ULSD until further notice and allocations were in place for supply of unleaded and premium gasoline.

**ExxonMobil** – As of Dec. 5, the status of the reformer at the company’s 523,200-b/d refinery in Baton Rouge, La., (shut after a fire Nov. 1) was unclear. Market sources variously reported flaring which could indicate some progress on repairs, but also that the 76,000-b/d unit could be down until sometime in Q1 2018.

As previously reported, a crude unit (one of four) at the refinery that was sidelined by the reformer fire came back on line on Nov. 20.

**ExxonMobil** – Hard freeze conditions in the Baytown, Texas, region Jan. 16-18 led to elevated pressure at towers in the company’s 584,000-b/d refinery there, resulting in emissions from several units, according to a report to state environmental regulators. The report listed FCC Unit 3, a light ends fractionation unit and a catalytic light ends unit as emissions sources. “Adjustments were made to return to normal operations,” the report said, noting that site impacts were “minor.”

As reported, similar weather extremes Jan. 1-3 affected operation of the 54,000-b/d coker at XOM Baytown, possibly shutting it down, a trading source told OPIS.

**ExxonMobil** – FCC operations at the company’s 377,400-b/d refinery in Beaumont, Texas, appear to have been disrupted on Jan. 6, according to an emissions report to state environmental regulators. Flaring was reported from an FCC following the shutdown of a process compressor, the report said. Duration of the outage wasn’t known as of presstime.

Meanwhile, downtime for the smaller of two crude units after a fire on Nov. 28 has stretched to as much as two months (into early February), according to Reuters.

**Houston Refining** – At least one of two cokers at LyondellBasell’s 196,300-b/d refinery along the Houston Ship Channel was reportedly experiencing operational problems on Jan. 17, a market source told OPIS, possibly due to hard freeze conditions in the area. The scope and duration of the issue for the cokers (whose capacities total 100,000 b/d) was not clear as of presstime.

**Marathon Petroleum** – The company’s 481,000-b/d Galveston Bay refinery in Texas took out of production on Jan. 15 the 137,000-b/d FCC after a blower upset, it told state environmental regulators, possibly the result of freezing temperatures. Operations resolved the issue and initiated restart.
As previously reported, the unit concluded a restart as of Jan. 10, after a three-day unplanned outage from a compressor upset.

Meanwhile, a turnaround begun earlier in January at the Galveston Bay-Texas City complex involved work on the larger of two reformers (80,500 b/d); an H-oil/resid hydrocracker (75,000 b/d) and a distillate hydrocracker (77,500 b/d). Sources said the work has also reduced crude runs. Duration of the planned maintenance was estimated at 30 days. Other sources have said that the alkylation unit at the Texas City portion of the complex is down until about Jan. 20 and the 58,500-b/d FCC continues to operate.

**Marathon Petroleum** – The company told OPIS on Jan. 17 that its 580,000-b/d refinery in Garyville, La., experienced a loss of power from a third-party supplier. Plant personnel were working to restore operations to normal, the statement said. As of Jan. 19, the refinery said was on track for restart by Jan. 21 or a few days after that, a market source told OPIS.

**Motiva** – Market sources tell OPIS that the company’s 635,000-b/d refinery in Port Arthur, Texas, has slated a turnaround in the February-March period for one of its three crude units and one of two cokers. Industry reports from Fall 2017 had suggested March-April timing for the work so the timeline may have been advanced.

**PBF Energy** – The FCC at the company’s 197,000-b/d refinery in Chalmette, La., was experiencing operational issues, a market source told OPIS on Jan. 17, possibly due to hard freeze conditions in the eastern part of the state. The scope and duration of the issue for the 75,600-b/d unit was not clear as of presstime.

**Phillips 66** – The Q1 turnaround at the company’s 154,000-b/d joint venture refinery with Cenovus in Borger, Texas, is seen involving the entire plant, getting underway in early February and taking 60 days to complete, according to Energy News Today. Duration of the work was previously reported at about 40 days.

As previously reported, the Unit 40 FCC at Borger saw on-and-off operation between Dec. 23 and Jan. 2, according to multiple filings with state environmental regulators.

**Phillips 66** – As of Jan. 17, planned maintenance was underway at the company’s 260,000-b/d Sweeny refinery in Old Ocean, Texas, according an emissions report filed with state environmental regulators. The unit cited in the report is a hydrotreater, which is consistent with previous reporting that the turnaround involves a hydrotreater as well as a crude unit, coker and reformer. The turnaround is seen lasting about seven more weeks (roughly until mid-March).

**Shell** – The company’s 260,000-b/d refinery in Convent, La., will continue to operate the 92,000-b/d FCC for “another cycle,” Shell said in early November 2017. The unit was previously slated to be decommissioned. Refining experts have told OPIS that the FCC will see a major turnaround in 2018 that should allow it to operate for another 4-5 years. The timing of that work wasn’t known as of presstime.

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**Valero** – About halfway through planned maintenance at the company’s 300,000-b/d refinery in Corpus Christi, Texas, work has begun on an FCC (95,500 b/d) and an alkylation unit, a market source told OPIS on Jan. 22. As previously reported by OPIS, a turnaround of some six weeks involving at least the FCC and the 110,000-b/d crude unit got underway around Jan. 3.

**Valero** – As of early Jan. 22, processing units at the company’s 125,000-b/d refinery in Meraux, La., were still down following a shutdown on Jan. 16 caused by a power failure, OPIS understands from a market source. The region was experiencing hard freeze conditions in mid-January. The refinery regained power on Jan. 17. The source told OPIS units still down included the crude unit, reformer, and a vacuum distillation unit. Valero didn’t respond to an OPIS request for comment. OPIS notes that the Meraux refinery was reported to have had a power failure around Jan. 2, during a period of frigid temperatures, taking until Jan. 10 to fully restart.

**Valero** – The company’s 220,000-b/d St. Charles refinery in Norco, La., is set to begin planned maintenance on its 75,000-b/d hydrocracker at the beginning of February, market sources told OPIS. The turnaround is seen lasting about six weeks.
**Valero** – The company’s 415,000-b/d Port Arthur, Texas, refinery has scheduled a Q1 turnaround of about six weeks for one of its two hydrocrackers to begin at the end of January, market sources told OPIS. Some accounts say the smaller unit (57,000 b/d) is to see work but OPIS previously reported that the smaller hydrocracker was in turnaround for most of October 2017. Total hydrocracker capacity at the refinery is 124,800 b/d, according to EIA.

**Valero** – Dec. 17 saw the company shut down equipment associated with the 54,500-b/d FCC at its 200,000-b/d McKee refinery in Sunray, Texas, following mechanical failure of a wet gas compressor, according to a filing with state environmental regulators. “The Safety Instrumented System (SIS) activated as designed and removed feed to the unit,” the report said, without indicating the duration of the outage.

As previously reported, Valero carried out planned maintenance on the FCC and a crude unit between mid-October and the end of November.

**Valero** – The company is planning to carry out Q1 2018 maintenance at its 197,000-b/d refinery in Houston, Tudor Pickering Holt said in early November, citing published reports. The unit involved is the 71,900-b/d hydrocracker, according to the investment bank. Start and end dates aren’t known but the duration is estimated at about 30 days.

**PADD4 / Rockies**

**Calumet** – The company appears to have deferred 45 days of planned maintenance at its 35,000-b/d refinery in Great Falls, Mont., to Q2 2018, according to investment bank Tudor Pickering Holt. Calumet had previously said the work would take place in second-half 2017 and reports earlier during the summer had indicated a full plant turnaround would be underway in July-Sept.

**PADD5 / West Coast**

**Andeavor** – As of Jan. 2, the company’s 383,000-b/d Los Angeles refinery had begun planned maintenance on crude distillation and coker units, Andeavor said, confirming previous reporting by OPIS citing multiple West Coast trading sources. The company declined to elaborate on the duration of the turnaround as well as the scope. Between the Carson and Wilmington portions, the refinery complex has four crude units and two cokers.

**Chevron** – The company’s 290,500-b/d refinery in El Segundo, Calif., is scheduled to begin in January a turnaround on its 73,800-b/D FCC and alkylation unit, according to multiple West Coast trading sources.

**PBF Energy** – Flaring at the company’s 157,800-b/d Torrance, Calif., refinery could occur Jan. 5-12, according to a filing with local environmental regulators, resulting in reportable emissions levels of sulfur oxide and vent gas flows. The report didn’t state the cause of the flaring other than to say it was not due to a breakdown, although sources tell OPIS that the refinery is shutting a hydrocracker (23,000 b/d) for unplanned repairs. PBF Energy declined to comment.

**Par Pacific** – The company’s plans to expand ULSD production at the 95,000-b/d Kapolei refinery in Hawaii remain on track for completion in Q4 2019, Par Pacific said on Jan. 3. The $27 million diesel hydrotreater project is seen increasing distillate output by 5,000 to 7,000 b/d. The refinery has an 18,000-b/d hydrocracker.

As previously reported, Par advanced a plant turnaround originally planned for Q1 2018 to Q4 2017. The planned work on the 13,500-b/d reformer began early in October and lasted three to four weeks.

**Valero** – Flaring was reported Dec. 17 at the company’s 87,000-b/d Wilmington, Calif., refinery, according to a filing with local environmental regulators. The event was not due to a breakdown; no cause was specified.

As previously reported, the refinery was expected to begin turnaround work on crude and coker units around mid-November. Industry reports also said a reformer and CDU were being worked on, with the maintenance expected to last around 30 days.
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