



## As Refineries Close, New Stresses are Added to the System

Posted by [Gail the Actuary](#) on December 5, 2009 - 10:45am

Topic: [Miscellaneous](#)

Tags: [gasoline](#), [oil refinery](#), [original](#), [supply disruption](#) [[list all tags](#)]

In the past several weeks, we have seen many reports such as this:

### [Colonial Pipeline Limits Gasoline Supply Shipments for Cycle 70](#)

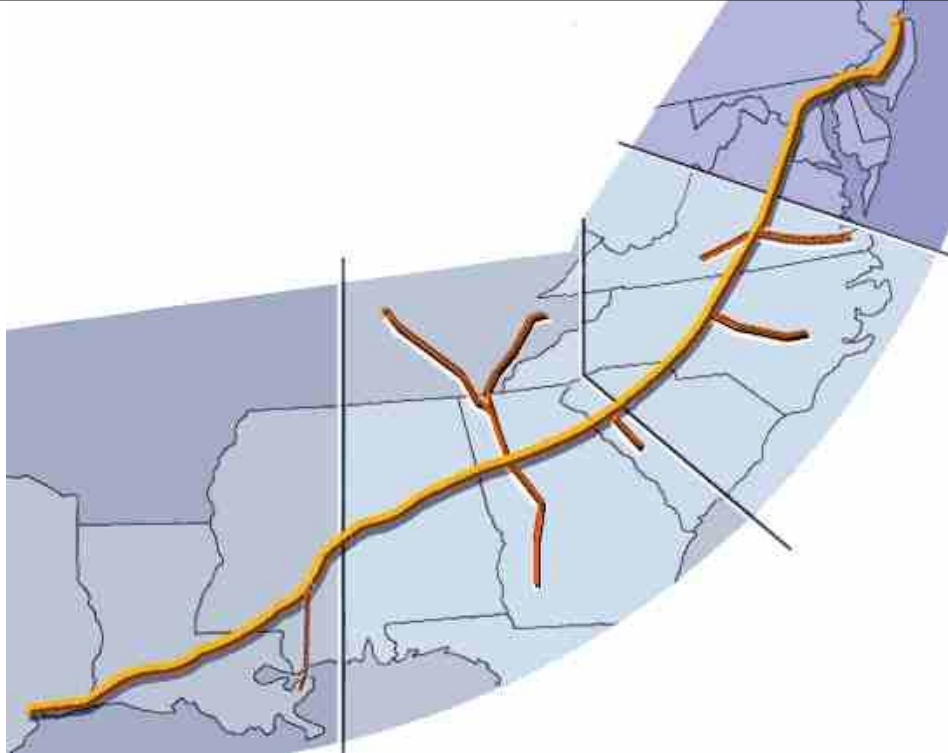
Colonial Pipeline Co., which operates the largest pipeline linking U.S. Gulf Coast refiners and East Coast markets, will limit shipments of gasoline because orders exceed the company's ability to deliver fuel on time.

The Alpharetta, Georgia-based company issued the requirement, known as an allocation, in a bulletin to shippers for the 70th cycle. The restriction applies to shipments on Colonial pipelines north of Collins, Mississippi.

Companies will be able to ship a pro-rated portion of their original nomination, based on their shipping history over the past year, according to Colonial.

With the assistance of Jane Van Ryan at API, I contacted to Steve Baker at Colonial Pipeline, to find out what is happening. I discovered the oversubscription seems to be related to refinery shutdowns in the Northeast.

Many of you will remember that Colonial Pipeline is the big pipeline that carries finished oil products from the Gulf Coast up to the Northeast part of the United States.



Map showing route of Colonial Pipeline

I live in the Atlanta area, so I remember when there have been gasoline disruptions because of inadequate supply. This has happened twice: once following Hurricane Katrina in 2005, and again in September 2008, following two gulf hurricanes.

When I inquired, I found out that there are really two parallel pipelines. One carries only gasoline products; the other carries distillate products. The line that is running short of capacity is the gasoline pipeline. (If only one is running short of capacity, it is not too surprising that it is the gasoline line. Distillate products like diesel fuel are now in very abundant supply; gasoline is at closer to normal levels.)

When I asked why demand was so high for gasoline pipeline capacity, one of the reasons mentioned was that shutdowns in refinery capacity in the Northeast were causing more demand for Gulf Coast gasoline. (If a refinery closes, it presumably will stop importing crude oil, and will also stop producing finished products such as gasoline and diesel. This supply needs to be replaced somewhere else.)

In checking in the news, I see two different refineries recently mentioned with shut downs:

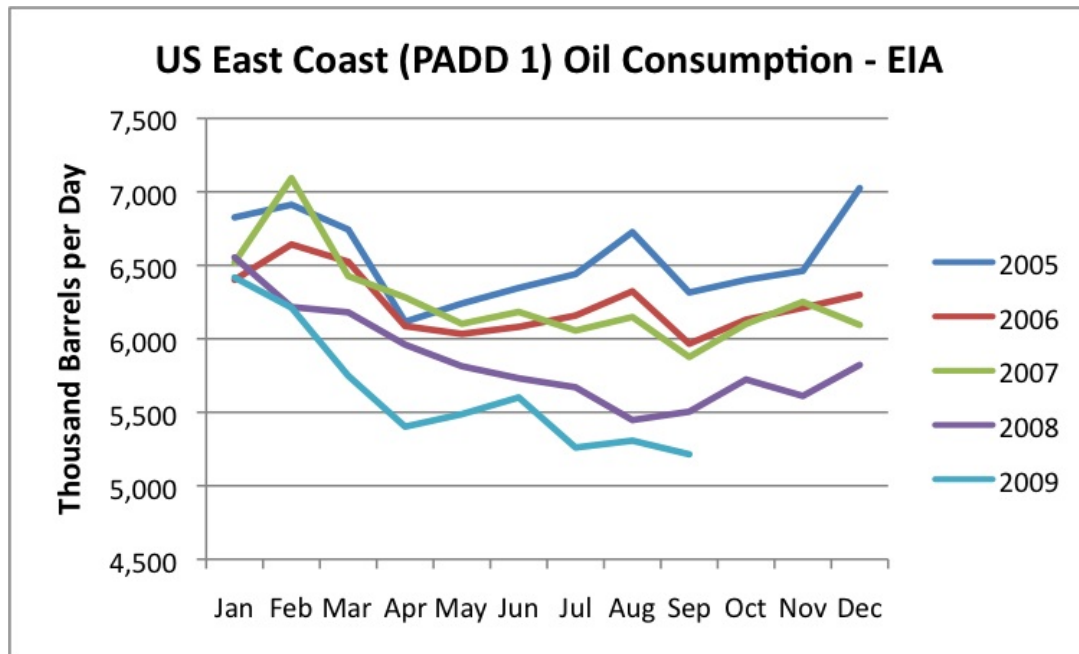
#### [Valero to permanently close Delaware City Refinery](#)

This is a [192,000 barrel a day](#) plant in Delaware. The story above indicates it was partially shut down early this year. No exact date for closing was given, but it sounds to be around the end of 2009, so the final shut down hasn't really taken place yet.

#### [Sunoco idling Eagle Point refinery, slashing dividend in half](#)

The other refinery closing was that of Sunoco's 145,000 barrel a day Eagle Point refinery in New Jersey. This may have taken place over a period of time, but did not finish until [December 1, 2009](#). So at this point, we really haven't really felt the full effect of these two refinery shut downs. Even so, gasoline distributors are putting in more orders for gasoline from the Gulf Coast, to help

Another reason Mr. Baker gave for the high levels of orders is that the price of gasoline on the Gulf Coast is relatively inexpensive now. If given a choice between importing gasoline from the Gulf or gasoline from Europe, gasoline from the gulf is a getter deal. So perhaps European supply is a little on the short side, or the falling dollar makes what is available more expensive.



It is not too surprising that refiners are shuttering refineries in the Northeast. These are likely among the oldest refineries, and oil consumption in the East has been dropping for several years, as can be seen on the graph above. Profit margins have also been low.

Will the refinery shutdowns in the Northeast cause a gasoline supply problem? With supplies as adequate as they are now, probably not, but it is a situation to keep watching. There are several different approaches that can be taken to make up the shortfall caused by the refinery shutdowns:

1. Oil that would have been imported by the two refineries that are being shut down can perhaps be imported by other refineries in the Northeast, so the refined product will still be available in the Northeast. The amount of capacity being shut down amounts to about 20% of total refining capacity in "PADD1" (the East Coast), and production has recently been running at about 75% of capacity. If the remaining refineries run at close to full capacity, the other refineries could theoretically make up the difference--but it would be a stretch.
2. More refined products (rather than crude oil) might be imported from Europe.
3. If pipelines are full, ships could be used to transport gasoline from the Gulf Coast to the Northeast.

So there are options that can work, as long as everything is operating normally. The question is what happens when there is a shortfall, such as from a hurricane, or a supply disruption from Europe. Then it seems like there may be even more buyers dependent on the Colonial Pipeline for supply.

One thing that is annoying (to someone living in Atlanta, anyhow) is that if more customers want

to use the pipeline than the total capacity, it appears that all of the orders are prorated by the same percentage. The problem I see with this is a place like Atlanta is not on the coast, so is 100% dependent on what we get from the pipeline. If Atlanta orders are prorated because someone in New Jersey would like to order more gasoline, we are stuck with getting along with whatever is available (and possibly long lines at gas stations, as with the two hurricane situations). If New Jersey or Baltimore or New York are "shorted," they at least have the option of receiving shipments by sea, either from the Gulf Coast or from Europe.

I suppose with time, and the possibility with higher prices, this will all work out. But one doesn't like to see Colonial's gasoline pipeline already being utilized at of 100% of capacity, and orders being prorated, even before the two refineries that are being closed are fully off line. The system seems to have very little slack in it. Such systems are the ones most prone to disruption.



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