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PETROCHEMICAL MARKETS

USA update: "Harvey" moves on to Louisiana / Ports closed / Cutbacks in petrochemicals / South Texas picks itself up again / Glimmer of hope in Houston as rainfall eases

It's not over yet. Hurricane "Harvey", which has been torturing the US Gulf Coast during the past five days and turned the Houston region into a flooded catastrophe area (see PIEWeb of 30.08.2017), is now venting its anger on the coastline of eastern Texas and western Louisiana. Many more big US refineries with downstream petrochemical and plastics production are located there, including such well-known sites as Beaumont, Port Neches and Port Arthur. Somewhat further east, the production plants around Lake Charles could also be affected.

Although, in terms of wind speeds, Harvey has been downgraded from a class four hurricane to a tropical storm, it is still carrying an enormous amount of water. Today, Wednesday, rainfall of 25 to 50 cm/m² is expected in the region, which may not be quite as much as Harvey dumped over Houston in the last few days, but is still a lot. The authorities have therefore closed the region's ports, including those in Beaumont, Port Arthur and Lake Charles, which are particularly important for industry. Rail lines to Lake Charles are already impassable because of the severe flooding.

Some companies have shut down or reduced output of other plants simply for logistical reasons. **DuPont**'s cracker in Orange, for example, has stopped operating due to a lack of raw materials, while **ExxonMobil** is operating its refinery in Beaumont at a much reduced rate. At both sites there are also large downstream PE production facilities. The biggest refinery in the USA in Port Arthur, operated by **Saudi Aramco** subsidiary **Motiva**, has already been forced to lower its utilisation rate to 40% – simply because the necessary oil can no longer be delivered. **Flint Hills Resources** has completely shut down its olefin facilities in Port Arthur. There have as yet been no reports of any restrictions from Lake Charles, but the probability of this happening is relatively large merely in view of the raw materials issue.

The well-known petrochemical sites in the Houston bay area that are affected by the aftermath of "Harvey"

In the meantime, the first reports have been received of production plants restarting again in the region around Corpus Christi in southern Texas, where Harvey arrived on Saturday. The big **Formosa Plastics** site at Point Comfort, for example, is said to be in the process of restarting. Flint Hills aims to have its refinery and petrochemical plant in Corpus Christi back at full speed by 6 September. Generally speaking, the production facilities that were hit by the first wave of shutdowns at sites such as Victoria, Seadrift, Green Lake, Matagorda, Ingleside, Bishop and Chocolate Bayou will probably be back online again soon, as hoped.

In contrast, the situation still looks very different in Houston, although there is one glimmer of hope: The rain eased on Tuesday evening (local time) for the first time for four days, and the national weather service does not expect any more significant rainfall there. It seems as if the worst is over. It is, however, not yet possible to give the all-clear because the region is still threatened by overflowing water reservoirs and waste water tanks as well as surrounding rivers and canals where the water levels are very high.

The refineries, petrochemical plants and the region's pipeline infrastructure are showing the first scars from the event. Apart from the danger emanating from the necessary burning off of gas when a plant is shut down, there are also various reports of damage. A tank may have a leak, liquid may escape from a pipeline – all of which are virtually unavoidable side-effects of large-scale industrial systems. It is not possible to rule out consequences of leakages with highly toxic substances. The most serious case at present is probably a plastics additives plant to the north of Houston, which is at risk of exploding after the failure of its emergency power generator for cooling.

It is still impossible to predict when the situation in Houston will allow an assessment of the temporary and permanent damage. When the curtain opens, as the vast quantities of water flow away, it should be feasible to take stock. Discussions on industrial monoculture for energy and petrochemicals on the US south coast have already begun.

Worldwide, too, the events on the Gulf of Mexico will soon have a much bigger impact. All export activities on the US Gulf Coast – for example for ethane and propane, which are also processed in European crackers and production plants – have now been shut down. In the coming weeks, plastics processors in the US could well need unusually large volumes of imported material. Everyone involved in the value chains in Europe and the world should prepare themselves for a turbulent time in the petrochemical markets in the next few days and weeks.