

Waiting for Amur – what's next for helium markets?

By Phil Kornbluth 8 March 2021

Since Covid-19 took a chunk out of helium demand and brought Helium Shortage 3.0 to a rather abrupt end in February 2020, there has been a relative lack of headline events impacting helium markets. The market has seen sufficient supply, the end of steep price increases and no large new sources have entered the market.

After experiencing a demand reduction of as much as 25% during Q2 of 2020, the majority of the reduced demand has returned and helium markets are in relative balance during the early part of 2021. While certain applications, including party balloons, diving/offshore gases and MRI have still not fully recovered from the impact of Covid, other sectors, such as electronics and aerospace are thriving. The recovery of helium demand seems to be tracking the overall economic recovery and it could be another year or so before helium demand has fully recovered to pre-Covid levels.



Source: Gazprom

Amur GPP

While underlying supply and demand are now in reasonable balance, that does not mean that the industry has not been challenged to maintain reliable supply for helium users. As this article is being written, there are considerable Covid-related shipping bottlenecks, with the most severe delays affecting the Pacific ports of North America. With cargo ships queuing up for much longer than normal at West Coast ports, shipments from the US to Asian markets have been delayed, causing supply outages in some instances. These port bottlenecks could linger for at least the next few months.

In the Middle East, we had good news with the lifting of the Saudi-led embargo of Qatar, but the impact thus far has been negligible because mandatory Covid-related quarantines of truck drivers have made it impractical to ship helium containers over land between Ras Laffan and the Jebel Ali port in Dubai. Meanwhile shipments via cargo vessels from the Qatari port of Hamad to Jebel Ali are still not permitted, a remnant of the dispute between the UAE and Qatar. The trucking situation is not expected to change until the COVID pandemic has eased.

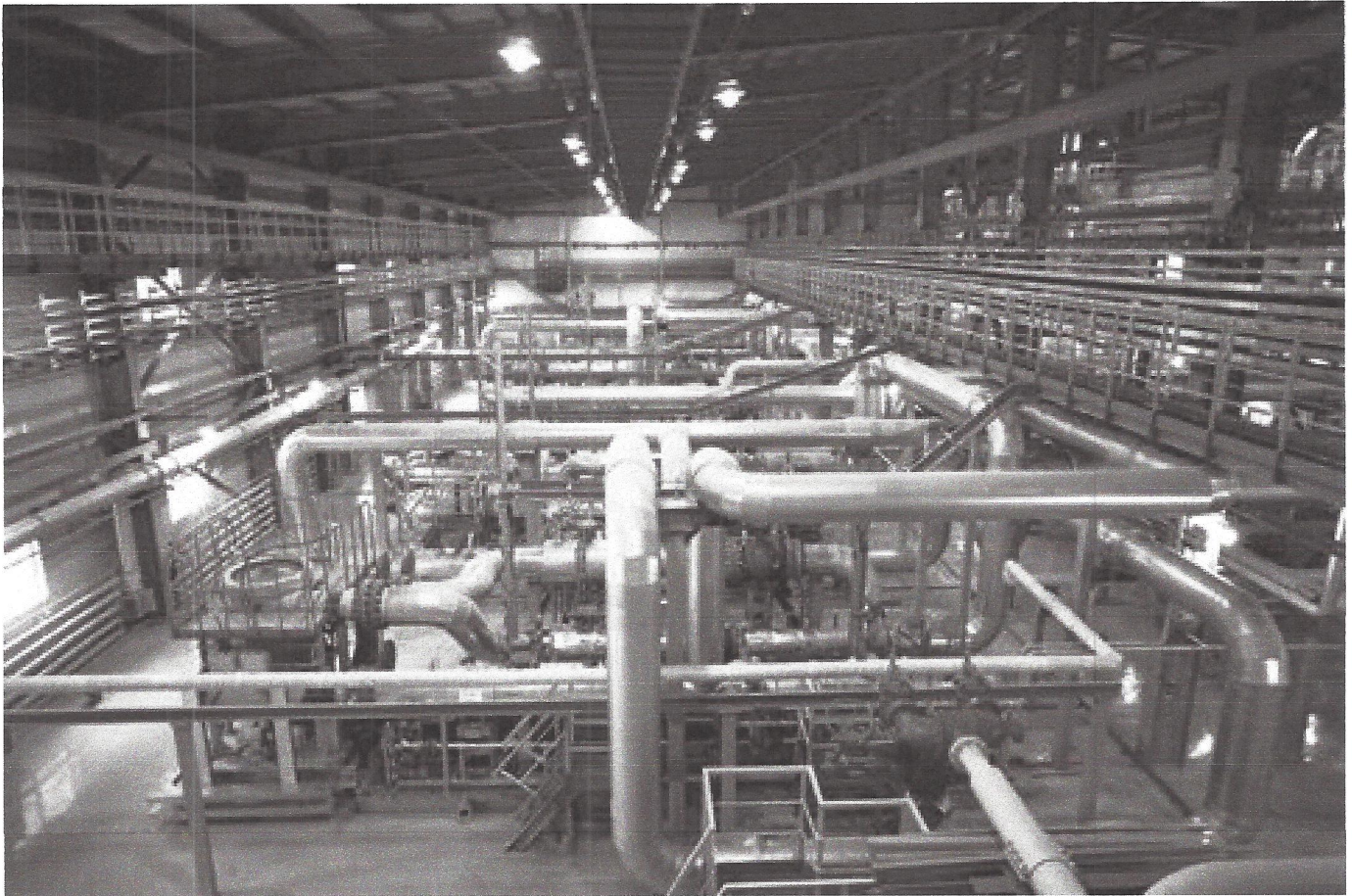
Helium supply has also been impacted by the severe winter weather that impacted the US mid-continent and Texas, shutting down the Bureau of Land Management's (BLM) Crude Helium Enrichment Unit and Pipeline System for the better part of a week. Going forward, the BLM is planning a 10-13 day shutdown commencing March 15 as well as a second planned shutdown during April. Also, a portion of the supply from Qatar will be temporarily off-line from early March through mid-April due to planned maintenance.

With overall ample supply in the market, helium suppliers have generally been able to maintain continuity of supply despite these disturbances to the helium supply chain.

What's next for helium markets?

The next big events that helium markets are waiting for are the start of production from the Barzan Gas Plant in Qatar, which the industry refers to as Qatar 3 and Gazprom's Amur Project. While the Qatar 3 Plant is thought to be mechanically complete, information related to the precise timing of the start of production has been closely guarded. Although it is widely expected to commence production at a reduced rate, Qatar 3 will eventually have capacity of around 425 million standard cubic feet (MMCF) per year.

Gazprom's long-awaited Amur Project, which includes three trains of 700 MMCF each for a total of 2.1 billion cubic feet (BCF), is expected to begin production from its first train before the end of the summer. The second train of the Amur Project is expected to commence production in early 2022, with production from the third train expected in 2024. While the likelihood of production from Amur's first train in 2021 is viewed as quite probable, questions remain about how quickly production from



Source: Gazprom

Low-temperature separation workshop at Chayandinskoye field

this huge and complex plant will ramp up to its 700 MMCF capacity.

While the precise timing of supply from Qatar 3 and Amur remains unclear, it seems likely that as much as 1 BCF of new capacity could enter the market later this year and close to 2 BCF of new supply could enter the market between now and the end of 2022. If all or most of this new supply comes to fruition, helium markets will experience a big change and the period of recurring sustained shortages that have plagued helium markets since 2006 should finally come to an end. While helium markets will always have exposure to temporary periods of shortage due to plant maintenance shutdowns or supply chain upsets, we may not see the return of grinding, multi-year shortages to which we have grown accustomed for an extended period.

About the author

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