Refinery Turnaround: Inspecting All Systems in Great Detail

Once every six years, oil and gas giant OMV takes on an enormous task at its refinery in Schwechat, Austria: completely dismantling, inspecting, renewing, and restarting the petrochemical plant. Every time this project takes place, safety experts from HIMA visit the site to thoroughly check all the safety systems.

For 59 years, the refinery in Schwechat has been doing its job reliably. To ensure this remains the case in the future, a turnaround is required by law once every six years. OMV collaborates with TÜV Austria to carry out this process. The inspection, maintenance, and modification of safety systems play an important role, as these systems are responsible for functionally safe, automated operations. For this reason, in April 2017, 19 service engineers from HIMA packed their suitcases and headed to Austria for seven weeks.

A Demanding Project on a Tight Schedule
In total, around 3,500 service technicians from 50 OMV partner companies from around Europe were involved in the petrochemical plant turnaround, with an additional 700 employees from the refinery itself. Because it was a project of such enormous proportions, HIMA began making detailed preparations for the turnaround a year in advance.

6,700 HIMA man-hours on site

Industry
Oil & gas

Description
International, integrated oil and gas company, and one of the largest listed industrial companies in Austria

Headquarters
Vienna, Austria

Revenue
EUR 19.26 billion (2016)

Employees
22,544 (2016)
The safety experts faced the challenge of performing a general inspection on a total of 61 safety systems and then modernizing them. This took the engineers anything from three hours to two-and-a-half weeks to complete for each system cabinet.

Predictive Safety Management

The specialists also inspected the Planar4 system cabinets and the HiQuad and HIMatrix systems. Another task for the engineers was to adapt and extend the safety systems in line with the HAZOP (hazard and operability) process.

After comprehensive tests and seven weeks of downtime, OMV restarted production in Schwechat. By working well together as a team in shifts, the HIMA service engineers even managed to complete their assignment earlier than originally planned.

Plant Shutdown: A Monumental Task

Around half of the OMV refinery is dedicated to petrochemicals, manufacturing intermediate products for use in the production of plastics. The specialists inspected 26 HIMA safety systems in the ethylene cracker alone. In maintenance projects of this size, the goal is to complete as much work as possible in the shortest possible time frame – especially as the plant has to remain offline during the turnaround. This is just one of the reasons why the expertise of the engineers has to live up to high expectations.

“The refinery is very sophisticated in terms of technology. As external partners, we had to completely immerse ourselves in this world. Our experience contributed to the project’s success, and we were able to execute the modernization measures efficiently.”

Fabio Lodigiani
Head of Safety Services, HIMA

“We also faced the challenge of maintaining and, more importantly, renewing dozens of Planar F system cabinets. Although we discontinued the Planar F system in 2012, it is still running stably and reliably with many customers. They can rest assured that the expertise of our specialists will continue to be available to them,” says Thomas Lang, head of service operations at HIMA Paul Hildebrandt GmbH, who led HIMA’s part of the project.