

Hydraulics maintenance ensures continuous large-scale refinery operation

Neste Oil manufactures premium-grade oil products and renewable traffic fuels at its Porvoo refinery. The plant's capacity is as high as 206,000 barrels a day. PMC Polarteknik is responsible for the hydraulics maintenance at the refinery, oil harbour and unloading terminal.

Jukka Hurmeranta, Group Leader of Neste Oil's Production and Logistics believes that collaboration with PMC Polarteknik has brought with it many advantages to the Porvoo refinery. The collaboration started in spring 2012, when a one-year maintenance contract was signed. After that, the partnership expanded: in 2013, a multiannual contract for total hydraulics maintenance was signed.

"We selected PMC Polarteknik as our maintenance provider, because we wanted a partner that is a certified supplier in its field," Hurmeranta says.

The goal of the partnership is, in its part, to make sure that the refinery operations are running uninterrupted. This is for the good of the Neste Oil customers both in Finland and in the international market. Among other things, it is important to prevent unexpected malfunctioning of hydraulics, since this can lead to a unit shutdown at the main refinery.

The size of the plant is demonstrated by the fact that production can go up to as much as 12 million tonnes a year. In 2011, the Porvoo refinery's average utilisation rate was 85 percent.

Desire to focus on core competence

Earlier on Neste Oil handled the hydraulics maintenance in the refinery, oil harbour and unloading terminal area independently. Now PMC Polarteknik is responsible not only for regular maintenance but for charting the maintenance locations, anticipatory planning and for storing the maintenance history in a digital format.

"We wanted to focus on our core competence and its development. PMC Polarteknik is the obvious partner with strong hydraulics know-how. I have very positive experiences with the company from previous projects," says Hurmeranta.

Neste Oil's Porvoo oil harbour is in terms of tonnage the biggest of its kind in Finland. About 1,200–1,400 ships visit the harbour annually. Each year, about 20–23 tonnes of cargo are loaded and unloaded.

The vessels load and unload oil products at the harbour, whereas cargo carried by trains is exchanged by using the loading arms located at the unloading terminal. The port is used for transporting crude oil, other industry input materials, finished oil products as well as gases and chemicals.



Caring, problem-solving and flexibility

The maintenance work focuses on, among other things, on the hydraulics aggregates in the loading arms at the port and unloading terminal. The aggregate seals, pumps, filters and valves require constant care.

Hurmeranta lists three key features, which he expects his service suppliers to fulfill. Caring about the customer and the maintenance jobs is number one, since Neste Oil appreciates partners who are capable of regular contacts and communication. Another important issue is the ability to solve problems, which in PMC Polarteknik's case means that it can bring up various problem-solving methods, when necessary.

The third key characteristic is flexibility. The refinery runs 24/7, which means that PMC Polarteknik needs to be able to react quickly and solve problems so that they are dealt with at one go.

The Porvoo oil refinery

The biggest oil refinery in Finland

In terms of tonnage, the biggest port in Finland

Four production lines and 40 processing units

In production there are more than 150 products and product components

The refinery area employs approximately 1,900 people

