

WPU plans Rotterdam pyrolysis plant

An 80,000 t/y chemical recycling plant could be built next to Vitol's refinery in the Dutch port area.

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Waste Plastic Upcycling (WPU), part of Dutch group Vitol, is planning to build a new chemical recycling plant for plastic waste using pyrolysis at the Port of Rotterdam, alongside Vitol's VPR refinery.



The project remains subject to the relevant regulatory approvals. If the project clears the regulatory process, the facility will have a treatment capacity of around 80,000 tonnes per year of plastic waste. This will be added to the 20,000 t/y capacity of the demonstration plant already operating in Denmark, which is running close to full capacity.

At the new facility, WPU will use its proprietary batch pyrolysis technology, which makes it possible to obtain an oil that can be used, as an alternative to naphtha, in the production of circular chemicals, intermediates and new plastics.

The plant will adopt state-of-the-art furnace technology designed to reduce emissions and energy consumption, which has already been successfully tested by Vitol at its Rotterdam refinery, where it has delivered a 50% reduction in NOx emissions and an 80% reduction in SO2 emissions, together with an energy consumption cut of up to 40%.

According to the Dutch company, the project comes at a favourable time: demand for circular feedstocks is growing and European policy continues to promote higher recycled content and the decarbonisation of petrochemical value chains.

“Projects such as this will help tackle the plastic waste problem, expand the availability of alternative raw materials for the petrochemical sector, and lower the overall carbon intensity of manufacturing plastic,” said Tom Baker of Vitol. “Located alongside VPR in Rotterdam, the facility would be well placed to connect recycled output with existing industrial infrastructure and end markets.”

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