

Rotary Kiln

R-04-04 / RAFFINERIE DES FLANDRES

LOW TEMPERATURE THERMAL DESORPTION OF TPH CONTAMINATED SOIL FROM THE DUNQUERQUE REFINERY (RAFFINERIE DU NORD)

Context

TOTAL FRANCE owns and operates a large oil refinery in Dunquerque (France) and, in the course of refinery operations and application of the company's internal environmental policies, contaminated soils were sent for treatment at the Haemers technologies facility permitted in Rouen (France). The transportation of the soil took place by trucks, after full acceptance and administrations procedures were set up. TOTAL FRANCE, through Saninord, has remediated over 4,900 tons of TPH contaminated soil at the Rouen (France) facility, owned and operated by Haemers technologies.

Equipment

Contaminated soils were processed by a counter flow, direct fired LTDU (Low Temperature Desorption Unit) with nominal capacity of 15 tons per hour. The equipment train included a pre-screener, belt scale conveyor, rotary dryer, fabric filter baghouse, thermal oxidizer, soil moisturizer, and stacker. Diesel and recycled oil were used as process fuel.

Treatment/Clean Up Targets

The soil to be treated contained TPH concentrations up to 15,000 ppm. All soils were cleaned down to less than 50 ppm TPH. Air emissions were in accordance with the local air permit conditions.

Key facts

Contaminants
TPH

Max. Concentration
15000

Volume
3063

Tonnage
4900

Number of Heating Tubes

Temperature Target

Heating duration

Treatment Targets
<50

Location

Future Use

Client

Consultant

