

# Rotary Kiln

## R-01-04 / PORTLAND

THERMAL DESORPTION OF 21,000 TONS OF MGP TAR  
CONTAMINATED SOIL BY MEANS OF THERMAL DESORPTION

### Context

The clean-up site is known as “The Pearl District” of Portland and is located downtown. It was a former manufacture gas plant (MGP) site operating from the 1930’s to mid 1950’s. The clean-up site was part of a major redevelopment project for the downtown area. Excavation took place on location, and contaminated soil to be thermally treated was transported to Haemers technologies’ facility approximately 8 miles away.

### Haemers technologies involvement

Haemers technologies was involved in the project for the thermal desorption treatment operation, as well as the set-up of all environmental, health and safety procedures for the operation of the thermal unit.

### Equipment

The project was performed by means of a parallel flow thermal desorption unit, with a nominal capacity of 50 t/h, equipped with an oxidizer, gas coolers, and baghouse. Production was limited due to the high moisture content exceeding 40 percent.

### Treatment/Clean Up Targets

The soil to treat was highly contaminated with PAH’s, had a high clay content, and a high moisture content. Other petroleum related contaminants were also found in the soil. The clean-up levels were less than 5 ppm for the total PAH’s and less than 100 ppm for the heavy petroleum.



## Key facts

### Contaminants

PAH

### Max. Concentration

4700

### Volume

13125

### Tonnage

21000

### Number of Heating Tubes

### Temperature Target

### Heating duration

### Treatment Targets

<100

### Location

Industrial

### Future Use

### Client

### Partner

### Consultant

### Date

2001

