

Integration of a highway construction in a final landfill capping

Project Details Belgium

Client:
Contractor, confidential

Project Budget:
Confidential

Key Staff:

- Piet Wens
- Paul Verkaeren
- Luis Hens

Duration:
2012 – ongoing

Provided services

- Drafting of the biogas production prognose (BLP) of the landfill
- Drafting of the Capping Plan of the landfill
- Supervision of the capping works
- Permit application for discharge of water

Introduction

The Client installs a road infrastructure, including a highway and bridges. The new road crosses a partially capped former landfill for incineration slags and sewer sludge.

The new road is partially constructed on top of the landfill

Global description

The landfill is capped in conformity with the Legislation, consisting of a: GCL, HDPE geomembrane, drainage layer and vegetation layer. A specific authorisation was delivered by the environmental authorities to replace the geomembrane by a concrete plate along the track of the road, with specific requirements on the quality of the concrete.

A soil embankment was placed as ballast on the landfill in order to improve the consolidation of the sludge and to minimize future settlements into the capping.

In the lowest part of the landfill, waste excavation will occur beneath the leachate level requiring leachate extraction and discharge.

The road is founded by more than 1.500 piles. A specific installation plan was set up for the placement of the bentonite liner along the piles.

Because of the presence of sewage sludge, Pollux Consulting evaluated the remaining biogas production and drafted the concept plan of the biogas evacuation network.



Currently, the first phase of the road construction is in execution. Pollux Consulting carries out the daily supervision of the bentonite liner placement

In a second phase, the landfill outside of the road will be capped and biogas collection system will be placed.

Delivered Services

Pollux Consulting acts in the project as certified landfill expert in landfill capping and biogas management.

Furthermore, services are provided at the level of leachate management.

