



Hazardous Waste Landfill Bonfol, Lot A (CH) Roofing

Country	Switzerland
Type	Roofing, Landfill, Rehabilitation
Client	bci Betriebs-AG (Basler Chemische Industrie)
Contractor	Groupement DIB: Marti Technik, Marti Infra, Parietti et Gindrat, JV Zueblin
Project Management	Marti Infra AG
Execution of the work	Renesco AG
Construction Period	2009

Project Description

The Bonfol hazardous waste dump was opened in the years 1961 - 1976 operated in a former disused clay pit. Around 114,000 tons of hazardous waste was disposed. In 1976, the pit's capacity was exhausted and covered with an additional layer of clay. Since 2007, the landfill has been renovated in two stages. An airtight negative-pressure hall was built above the landfill. The excavation and removal of the waste and contaminated subsoil began in March 2010. The first stage was completed in mid-August 2013 and the hall was pushed on slideways over the northern half of the landfill. Here, the waste was excavated between 2016 and 2017. In order to complete the dismantling, the roof structure of three halls (excavation, manipulation and ground hall, with a total of 22'000m²), consisting of a substructure formed by 21cm high trapezoidal sheets, were sealed with a synthetic sheet waterproofing.

Scope of Service

Roof sealing of the excavation hall (area 18'300m²); airtight; movable hall construction, arched (steel) structure with a wingspan of 150m at a length of 122m, plus sealing of the other two halls. The sealing system consists of the following elements:

- Vapor control layer, 0.16mm thick, based on polyethylene (PE), airtight sealed via butyl-adhesive strips/tapes
- Mineral insulation, 50mm thick, as a sound barrier
- Synthetic roof waterproofing sheets, based on soft polyvinylchloride (PVC-P) according to EN 13956, 1.5mm thick, a polyester reinforced multilayer.

These components are intended to keep rain and wind away from the inside of the halls and which are also responsible for the airtightness.

Note:

The renovation of the two hazardous waste dumps Koelliken and Bonfol are the flagship projects of Swiss waste management. During these cost-intensive and long-ongoing works, a lot of technical know-how was gained, which will benefit future renovations.



1. Excavation hall with steel construction
2. Roofing Works
3. Roof area including towing ropes