

## LAOGANG SOLID WASTE DISPOSAL CENTRE, SHANGHAI

# Transforming Shanghai's waste management landscape



**Industry:** Waste  
**Sub-industry:** Landfills  
**Location:** China  
**Product:** GSE® HD

## Overview

A groundbreaking initiative at a landfill in Shanghai, China sought to address the pressing need for efficient industrial solid and hazardous waste disposal in Shanghai. This resulted in the construction of China's first semi-underground double-layer rigid structure landfill at the Laogang base, designed to handle a substantial annual waste volume of 250,000 tons, with a total storage capacity of 5.05 million m<sup>2</sup> (54.38 million ft<sup>2</sup>).

## Challenge

The project's purpose was to address Shanghai's general industrial solid waste and hazardous waste disposal needs. The project specifications involved constructing a landfill in Shanghai's Laogang base with a design scale of

250,000 tons/year and a total storage capacity of 5.05 million m<sup>2</sup> (54.38 million ft<sup>2</sup>). The project timeline was from March 2022 to June 2023. The design process was carried out in collaboration with Shanghai Environmental Design Institute Co., Ltd. The specific design was implemented to cater to the treatment of general industrial solid waste and hazardous waste. Successful completion of the project would benefit the solid waste comprehensive disposal function of the Laogang base and promote the client's products.

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## CASE STUDY

Laogang Solid Waste Disposal Centre, Shanghai

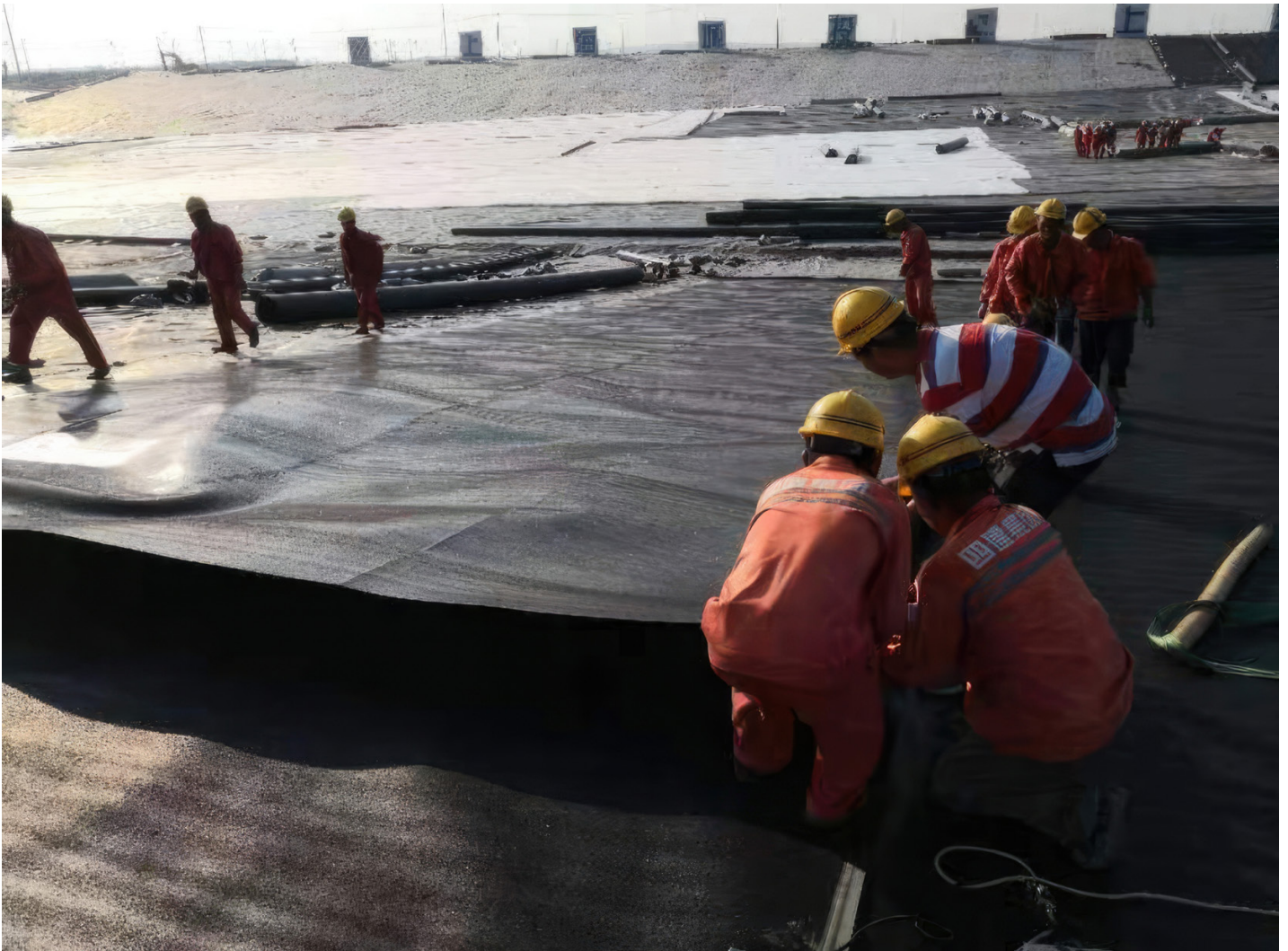
## Solution

The installation process involved constructing a rigid landfill. However, the project faced several challenges. Firstly, the COVID-19 lockdown in Shanghai from March to June 2022 had a significant impact on material supply and shipments. Additionally, there was tough competition from low-price competitors. To address these challenges, the client established effective communication channels with customers to ensure product quality and stability. They also adjusted the production line to meet the specification requirement and made efforts to find logistics vehicles to overcome shipment issues during the Shanghai lockdown.

This project stood out due to its status as the first semi-underground double-layer rigid landfill in China. It also achieved a 30% increase in storage capacity per unit area. The primary

product used in the project was a 2.0 mm (0.08 in) **GSE HD** smooth geomembrane, with an estimated quantity of 300,000 m<sup>2</sup> (3.23 million ft<sup>2</sup>). The selection of this product was based on its ability to offer superior protection to the concrete base and extend the landfill's service life. The project considered alternative products from other imported brands but ultimately chose the client's products due to a comprehensive analysis, production capacity, quality stability, and supply security.

Effective communication with customers emerged as a crucial factor in understanding their needs. Product quality stability played a significant role in the client's selection process. Lastly, the client's strong brand reputation contributed to their success.



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