



Case Study

Specialist Epoxy Lining & Remedial Works

Tanjung Bin Power Plant

DATA AT A GLANCE

Chimney Height	200 m
Internal Liner Can Dia.	10.582 m
Total Lined Surface	3,200 m ² (Can 4 to Can 19)
Coating	Epoxy Glass Flake Lining

Specialist Access



Abseiling and gondola systems enabled safe execution within confined chimney space.

Execution Efficiency



Approximately 3,200 m² of flake lining completed within 14 days.

Rapid Mobilisation



Planning and manpower deployment commenced within two days of PO issuance.

Project Overview

Balanced Engineering & Construction (BEC) was engaged to deliver specialist epoxy lining and remedial works for Chimney (T4) at Tanjung Bin Power Plant, Johor, Malaysia, following the 2025 fire incident affecting the plant's pollutant removal system.

The scope included the removal of existing borosilicate blocks and the supply and application of Epigen XD005FL epoxy glass flake lining to critical internal flue liner surfaces. The works were undertaken to restore corrosion protection, safeguard system integrity, and support the continued reliability of the facility.

Challenges

The project presented several challenges requiring rapid planning and disciplined coordination:

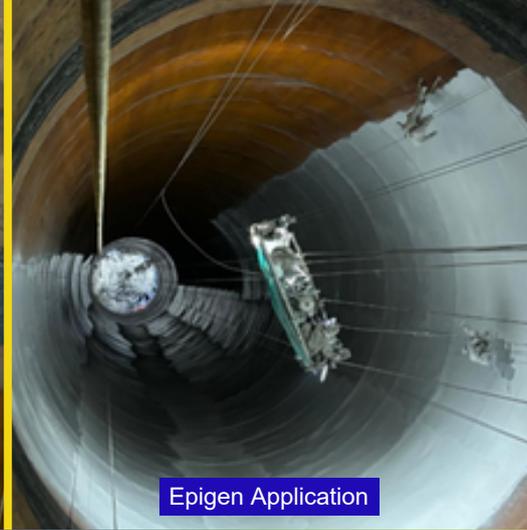
Short Mobilisation Period: Planning and manpower mobilisation were required within an extremely compressed timeframe.

Limited Access Equipment: Only one gondola was available due to the short mobilisation window, requiring careful sequencing and resource optimisation.

Aggressive Schedule Requirements: Approximately 3,200 m² of flake lining coating was required within a highly compressed schedule.



Removal of Borosilicate Blocks



Epigen Application



Temp Roof Structural Work

Owner

Malakoff Corporation Bhd

Client

Turcomp Engineering Services Sdn. Bhd.

Completion Date

January, 2026

Detail of work by BEC

BEC delivered specialist internal remedial and flake lining works for the affected unit, including the removal of existing borosilicate blocks and the supply and application of Epigen XD005FL flake lining coating.

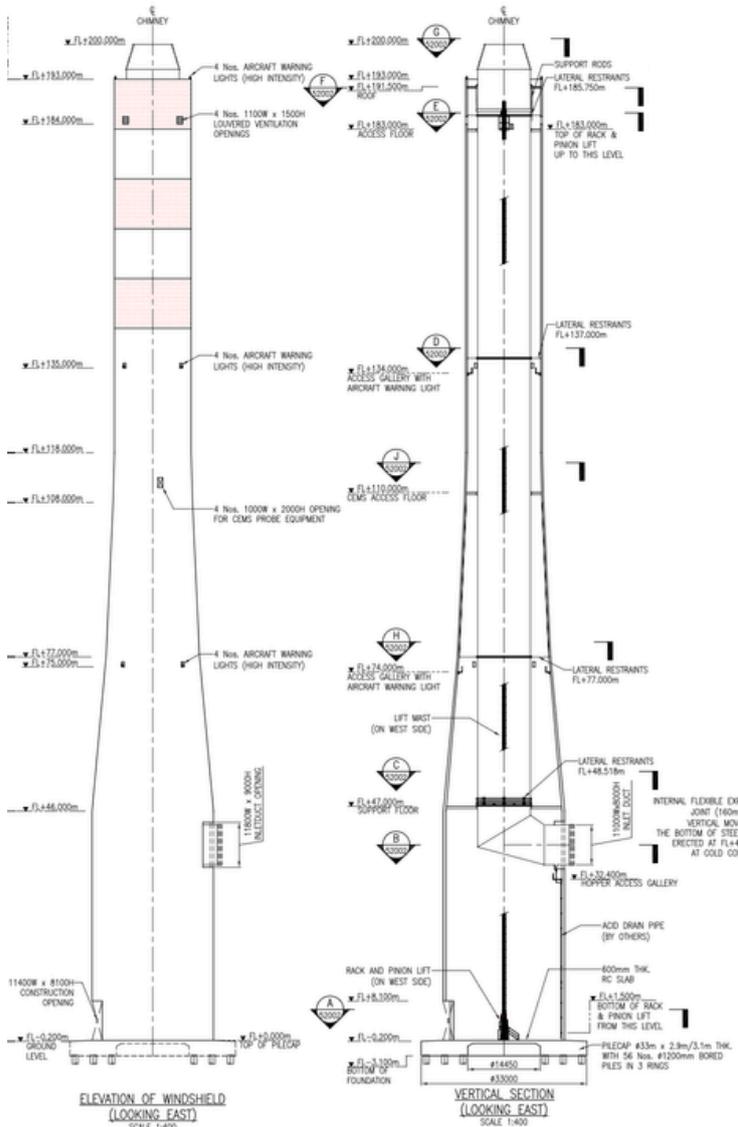
Approximately 3,200 m² of flake lining coating was applied within 14 days (single shift) using abseiling methods, supported by a centrally suspended gondola and airless spray system. Coating application was performed by certified abseilers, with material handling and equipment loading strictly controlled in accordance with Safe Working Load (SWL) requirements.

All works were executed under BEC's established safety management systems, with disciplined surface preparation, controlled coating application, and quality verification measures ensuring coating integrity and long-term corrosion protection performance.

The BEC Advantage

BEC combines rapid mobilisation capability, specialist lining expertise, and disciplined execution practices to perform effectively in complex industrial environments. The team commenced planning and mobilised manpower within two days, successfully applying approximately 3,200 m² of flake lining coating within a 14-day execution window.

Our deep understanding of high-performance corrosion protection systems, coupled with flexible access methodologies and strict safety controls, enables BEC to deliver reliable outcomes while maintaining quality, safety, and programme certainty.




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