

CASE STUDY

4701-F SULPHUR STORAGE PIT PROJECT

SINGAPORE



Project Participants

Client

Singapore Refining Company

Sulphur Pit Maintenance Contractor

Balanced Engineering & Construction Pte Ltd

SRU-4 MODIFICATION WORKS (4701- F SULPHUR PIT)

SINGAPORE PROJECT



Singapore Refining Company required extensive modification works to their existing sulphur pit at Jurong Island, Singapore

4701-F Sulphur Pit Modification Works

Civil & Refractory work scope for SRU4 improvement project works included:

Design and installation of new pit cover of SRU-4 sulphur storage pit (4701-F) and new internal linings were scheduled to be completed during HCU-2 turnaround (March 2022).

Detail of work by BEC

BEC was awarded the contract to carry out the design and construction of the major modification to the existing sulphur pit. Work scope include:

- Engineering services.
- Demolish existing sulphur pit cover, including 100mm refractory layer.
- Remove and clean sulphur residue to pit internal.
- Complete removal of 4 brick lined walls.
- Refractory works including APQ test.
- Side wall repairs and complete hacking of existing brick floor and removal of existing steel plate.
- Modification of centre partition wall.
- Prefab and installation of new sulphur pit cover according to BEC design.
- Casting of 2 no. bubbling column supports.
- Raising existing floor and reinstating 4 side wall brick linings.

Challenges

- Inclement weather
- Restricted working area
- Working inside a live refinery



BEC Group of Companies

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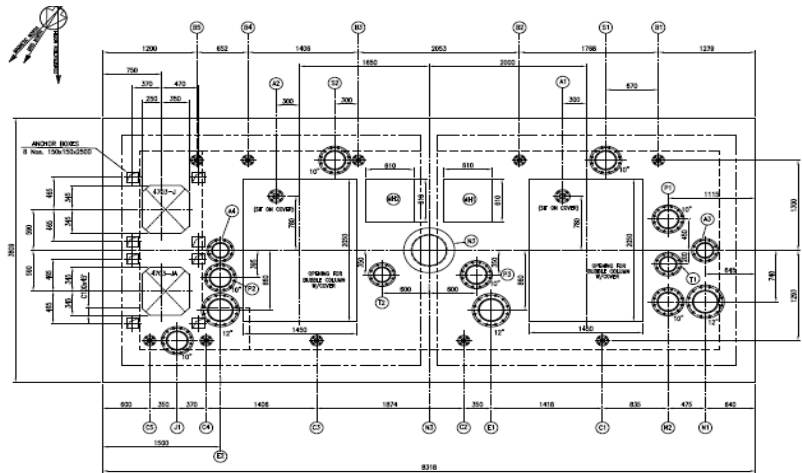
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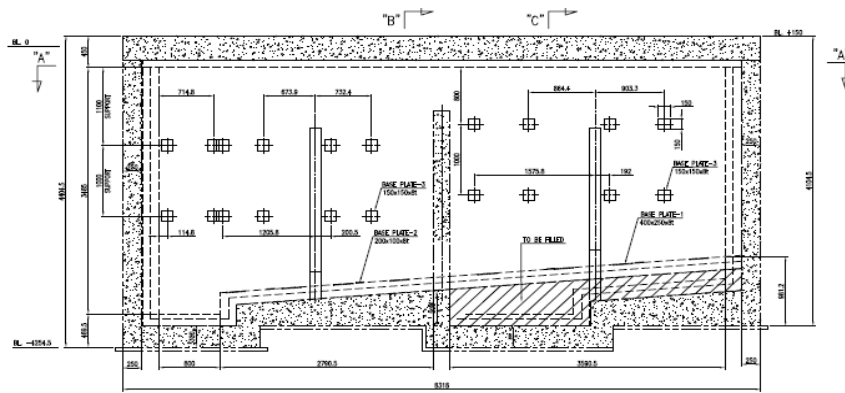
Sulphur Pit Improvement Works

4701-F Sulphur Pit Data

Height	4.50 m
Length	8.32 m
Width	3.80 m
Wall Type	Concrete/Steel/Insulation/Brick



TOP VIEW FOR PIT COVER
SCALE 1:25



ELEVATION VIEW
SCALE 1:25



Removal of pit cover using mini excavator. Hacking and removing hardened sulphur. Complete removal of existing brick lining walls.



Off site fabrication work for the new sulphur pit cover.



Reinstate side wall brick lining inclusive of foam glass insulation.

Installation of new sulphur pit cover.