

# CASE STUDY

## PETRON BATAAN REFINERY FLARE PROJECT



### Project Participants

#### Client

Petron Bataan Refinery, Inc.

#### Maintenance Contractor

BEC Specialist Philippines Inc.

### FLARE STACK REPAIR AND SERVICING

FLARE STACK



PETRON BATAAN REFINERY, INC contracted BEC to carry out the repair work on the Flare Stack, located in Limay, Bataan, Philippines.

### Petron Refinery Flare - 2 Stack

The Petron Bataan Refinery Flare Stack is 130m in height from the ground level with 68-inch diameter Hydrocarbon and 20-inch diameter Acid Gas lines respectively. The structural support for the flare comprises tubular members painted with red and white bands. Three main columns are anchored to a concrete foundation.

In addition, the flare stack has 2 nos. of 2-inch steam tracer lines, 1 no. of 2-inch centre steam line, 1 no. of 4-inch upper steam line, and 1 no. of 12-inch upper steam line that were subjected to repair during this Turn Around period.

### Detail of work by BEC

BEC was awarded the contract for the flare repair and servicing. The work scope included:

- Removal of insulation and cladding on the steam lines
- Removal and replacement of Flare Gas and Acids Gas flare tips
- Sectional replacement of steam line piping
- Repair of leaking steam tracer coupling and tubes including new bolts installation
- Crack restoration including inspection and testing
- Repair and replacement of all eight (8) pilot tip assemblies for both acid and hydro carbon lines

### Challenges

- Making safe existing corroded ladders and gantries
- Tight schedule
- Working at height

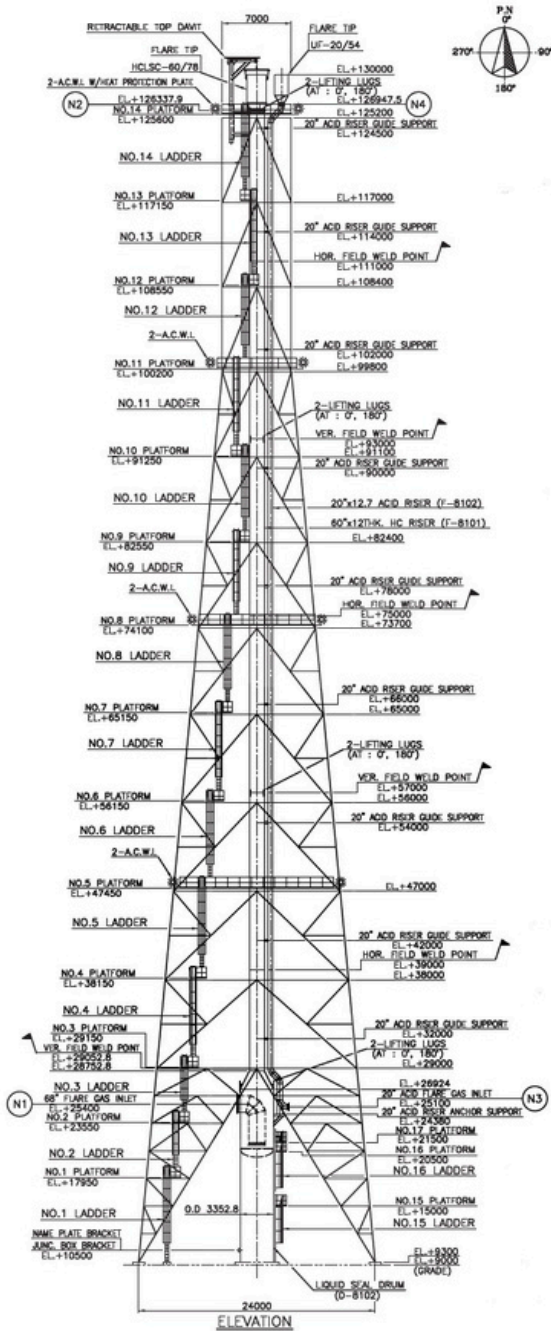


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## Flare Basic Data

Height	130 m
Diameter	1.72 m
Stack Support	Derrick structure



Restore damage insulation and cladding.



Repairing of leaking tracing line and cladding restoration



Crack restoration



Support restoration and replacing missing bolts.



Repair and installation of all eight (8) pilot tips of the acid flare tip.