

Title:

Condition Assessment of Coke Drum Supporting RC Structure, CPCL

Duration: One year

Deliverables:

- Based on the investigation and interpretation of test results, the prevailing condition of Coke Drum Supporting RC Structural components have been evaluated, which in turn helped in the formulation of repair strategy to avoid unexpected failures/shutdown.

Significant Achievements:

- In-situ non-destructive tests (NDT) and partially destructive tests (PDT) were carried out with respect to quality, integrity and recommendations for remedial measures.
- Based on the combination of visual observations and test results, it is found that the selective structural members need to be improved for quality, integrity and to mitigate deterioration.
- Appropriate repair measures are suggested to improve the quality, integrity and durability of Coke Drum supporting structures (Columns and Beams).
- Specific repair methodologies and general surface protection measures are provided for long-term durability.

Team:

S. Bhaskar (Project Leader)
Dr Prabhat Ranjan Prem
Sh. G. S Vijaya Bhaskara and
Dr Senthil Kumar

Photographs:

Typical photograph of supporting RC structure and two Coke drums
Date: 24.06.2026



Delamination, spalling of cover concrete and rebar exposure