Project Management International

SANTO DOMINGO CBM MOORING FACILITY - REINSTATEMENT PROJECT

Client: Coastal Petroleum Dominica SA
Location: Santo Domingo, Dominican Republic
Period: June - October 2008

SANTA DOMINGO, CBM Mooring Facility, - Re-instatement Project.

Coastal Petroleum operates the Santo Domingo CBM Facility in Dominican Republic. The facility was originally constructed in 1998, is able to accommodate a maximum vessel size of 30 000 DWT.
The facility imports LPG through an 8 inch pipeline and Jet Fuel and Diesel through a 12inch pipeline.
The system suffered from a severe lack of maintenance and one of the anchor legs was lost in a storm.
PMI was appointed to re-instate the system to its original design condition.

Scope of Works
PMI carried out the following activities for this project.

Inspection works
PMI conducted a thorough inspection of the complete facility in its then current state, to ascertain the existing status so that appropriate remedial and upgrade measures could be identified.
This included full inspections of the following components:

- ✓ Each of the remaining 5 anchor legs.
- ✓ The 5 remaining insitu mooring buoys
- ✓ The Pipe Line End Manifold
- ✓ The subsea marine hoses

The results of the inspection were used in determining the design required for re-instatement

Design Works
PMI provided all necessary design services to complete the works.
More specifically the following services were carried out:

- Analysis of the design of the installed CBM system.
- Design services to determine optimal solution for re-instatement works.
- Detailed design of the preferred remedial upgrading solution.
- Specifications for replacement parts required for re-instatement works
- Re-instatement engineering
- Update of the existing O&M manual including:
  - ✓ Review environmental conditions
  - ✓ Include approach vessel motions
  - ✓ Mooring analysis
- Operational limits auxiliary craft & standby tug
- As built documentation for the re-instatement works

Supervision Works
PMI also provided construction management services for the re-instatement of the CBM facility
More specifically the following services were provided:

- Project management to ensure that project elements were effectively coordinated.
- Project scope management to ensure all the work required is included.
- Project time management to provide an effective project schedule.
- Project cost management to identify needed resources and maintain budget control.
- Project quality management to ensure functional requirements are met.
- Project human resource management to effectively employ project personnel.
- Project risk management to analyse and mitigate potential risks.

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Construction Works

PMI carried out the installation works for the re-instatement of the missing anchor leg, including the anchor setting and pull testing, and replacement of the buoy for the newly installed anchor leg.

Additionally, PMI performed the works required to replace worn anchor chains and components on the remaining anchor legs.

PMI also carried out the refurbishment of the 6 existing buoys to the required specification. This included renewing the ancillary equipment and navigation aids on the buoys.

To minimise the costs, the installation works were carried out using equipment available locally in accordance with method statements specifically produced by PMI to take account of equipment available and the local conditions.

PMI made recommendations for the replacement of the submarine hoses so that these could be procured and installed by Coastal Energy.

Conclusion

The refurbishment was carried out whilst the CBM facility remained in service to reduce the impact on operations. As such, careful planning was required to ensure the impact of construction works on the operability of the system was minimised.

After the refurbishment, a revised O&M manual was produced that allowed the mooring of larger vessels under controlled conditions.

The O&M manual also defined the maintenance criteria more robustly to prevent the system from falling into disrepair.