DEENDAYAL PORT AUTHORITY

ISO 9001-2015 & 14001:2015 Certified

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No. CE/Project/ **Dated: 24/04/2026**

Expression of Interest

Sub: Request for EOI for "Providing support to facilitate Operation and maintenance of Augmented Liquid Cargo Handling Capacity by Revamping of existing Pipeline network at Oil Jetty Area, Deendayal Port Authority - Kandla"- Reg.

Sir,

Deendayal Port Authority intends to carry out the work for "Providing support to facilitate Operation and maintenance of Augmented Liquid Cargo Handling Capacity by Revamping of existing Pipeline network at Oil Jetty Area, Deendayal Port Authority, Kandla".

Kindly submit your Expression of Interest along with a budgetary – offer as per the prescribed format i.e. Annexure – I & II.

The rates quoted must be inclusive of all taxes, duties for performing the scope of work & exclusive of GST. The GST applicable shall be shown separately, which shall not be considered for evaluation purposes.

Your Expression of interest should be submitted through email to the id: kptprojectdivision@gmail.com or hard copy to the following address on or before 01.05.2026 by 17:30 Hrs.

Thanking you,

Yours faithfully,

Executive Engineer (P),
Deendayal Port Authority

Annexure - I

INTRODUCTION

This Expression of interest is for willingness to participate in the tender, when floated and also to understand the current market rate for **"**Operation and maintenance services for the augmented liquid cargo handling facilities created by revamping the existing pipeline network at the Oil Jetty Area, and to ensure safe, reliable and efficient operation of these facilities**"** in order to firm up the estimated cost for the project.

The successful Contractor, hereinafter called DAACPO (DPA Appointed Agency for Common Pipeline Operations) shall be responsible for:

a) Management, operation and maintenance of the common user and dedicated liquid cargo pipelines and associated facilities between Oil Jetties (OJ-1 to OJ-5 & OJ-7) and the Y-Junction / manifold area, which broadly includes product transfer through pipelines from / to marine tankers and all related pigging and line-up activities in all three shifts. The operation activities shall comply with ISGOTT / OCIMF, applicable OISD standards and statutory regulations. The Bidder shall provide adequate resources on a contractual basis for management, operation and maintenance of these facilities, and the entire handling operation and safety of products within the scope limits defined in the tender shall be included in the scope of work.

b) Preventive and breakdown maintenance of equipment and facilities falling under this contract scope, including but not limited to valves, pig launchers / receivers, manifolds, instruments, insulations, pipeline accessories, paintings structural supports for pipelines and other associated mechanical and civil works, in accordance with the maintenance schedules and equipment lists provided in the tender documents.

c) Liaison and coordination, in all three shifts including Sundays and holidays, with the Employer's operations / marine departments, Port Authority and terminal operators and with other parties associated with operation of the revamped pipeline network, as required for safe and efficient liquid cargo handling through the system.

SCOPE OF O&M WORK

All Products are discharged via Flexible hoses transferred via common pipeline to receiving manifold. The comprehensive O&M covers pure mechanical/pipeline operation and maintenance of following systems:

Leak Detection & Monitoring Responsibility:

Continuous monitoring of pipeline integrity, including visual patrols, pressure trend analysis, abnormal flow detection, comparison of ship-shore receipts and early identification of leaks, seepage or loss of containment, shall form an integral part of the Contractor's scope.

DETAILED SCOPE OF WORK:
SUPERVISION, ADMINISTRATION CO-ORDINATION & DOCUMENTATION
Summary:

The DAACPO shall be responsible for the administrative control and supervision of all activities related to the entire pipeline network areas (OJ-1 to OJ-5 & OJ-7 and Y-Junction including manifolds, pig stations, valve galleries) as directed by DPA / Engineer-in-charge (EIC).

The DAACPO shall co-ordinate on day-to-day basis with various agencies including;

a. DPA operation & Engineering Departments
b. Terminal Operators (Edible Oil, Chemicals)
c. Shipping Agents, Surveyors
d. CISF Security Personnel
e. PESO Inspectors
f. GPCB Environmental Officers
g. Other users / visitors to the pipeline network as per direction by DPA EIC for pipeline line-up-operations, pigging activities maintenance coordination, and asset management

Supervision of entire pipeline network (24 x 7 Coverage) 14" & 10" CS Edible, 10" SS Chemicals and Nitrogen / Air / Water lines), Pig launcher / Receiver station, valve galleries, Pipe support Structures, Manifold Area Civil works

Round the clock supervision for all activities including Pipeline line up for the terminal operators, pigging operations using nitrogen/air, Emergency isolations, Leak detection & response, structural integrity monitoring

All maintenance, modification and repair jobs on pipelines, valves, manifolds, pipe supports, structural trestles and pipe bridges being carried out by any agency within the defined work area, ensuring compliance with the Employer's safety and technical requirements.

The DAACPO shall maintain daily records (in soft and hard copy) of all operational and maintenance activities related to the pipelines and associated structural works, including vessel / pipeline allocation, product transfer details, pigging / cleaning operations, isolation and line-up status, and maintenance interventions, and shall submit daily reports / analysis and any other periodic reports as required by the Employer.

Emergency Response & Incident Management:

The DAACPO shall develop, maintain and implement a Pipeline Emergency Response Plan (PERP) covering scenarios such as leakage, rupture, fire, explosion, loss of containment, pig stuck, pressure surge, hose failure and vessel-related emergencies.

The DAACPO shall ensure round-the-clock emergency preparedness, including trained personnel, mock drills (minimum quarterly), emergency isolation procedures, coordination with Port Fire Services, CISF and terminal operators, and immediate reporting of incidents to the Employer and statutory authorities as per OISD / PESO norms.

Pipeline Network:

i. 14" Piggable Carbon Steel pipelines for edible oil with pig launcher/receiver facilities
ii. 10" Piggable Stainless Steel pipelines for chemicals
iii. Nitrogen pipelines for purging/pigging
iv. Instrument air lines for pigging operations
v. Flushing and potable water supply pipelines
vi. All associated manual/motor operated valves,

Pipe Supports & Structures:

i. Pipe racks, sleepers, spring hangers, guides, anchors, gratings, platforms
ii. Painting and corrosion protection of exposed surfaces (3-year cycle)

Pigging Facilities:

i. Pig launcher/receiver stations - cleaning, inspection, pig loading/unloading support
ii. Differential pressure logging during pigging operations

Documentation & Reporting:

i. Monthly pipeline health reports
ii. Pigging logs, breakdown records, spares consumption records
iii. Valve operation and leak test records

NOTE:

1. LPG pipelines in OJ-1 will not come under the scope of DAACPO (**DPA Appointed Agency for Common Pipeline Operations)**. LPG pipeline maintenance and operations are handled by the respective terminal operators only.2.
2. In OJ-5, the jetty is shared with IFFCO, with certain pipelines owned and operated by IFFCO. DAACPO should handle only pipelines assigned to it by DPT (i.e. DAACPO should not maintain or operate IFFCO pipelines).

MANPOWER

The DAACPO shall deploy, at a minimum, the following qualified personnel for management, operation and maintenance of the augmented liquid cargo handling system comprising the revamped pipeline network and associated structural facilities between Oil Jetties OJ-1 to OJ-5 & OJ -7 and the Y-Junction, Manifolds:

Operation Manager:

i. **Jetty / Pipeline In-Charge:** One qualified engineer in general shift on all working days (or as required), responsible for overall supervision and coordination of all activities related to the revamped pipeline corridors, manifolds, pigging facilities and pipe racks / trestles.

ii. **Maintenance Engineer:** One qualified Mechanical Engineer in general shift on all working days, responsible for preventive, predictive and breakdown maintenance of pipelines, valves, manifolds, supports and associated structural works created under this augmentation / revamping project.

iii. **Safety Officer:** One qualified Safety Officer, meeting applicable statutory requirements, in general shift on all working days, responsible for HSSE management of all works associated with operation and maintenance of the revamped pipeline network and related structures.

iv. **Shift In-Charges:** Four qualified shift engineers, one in each shift, for round-the-clock operation and supervision of the common user and dedicated pipelines, including line-up, monitoring, pigging support and coordination with the Employer's operations.

v. **Shift Officers:** Eleven qualified Shift Officers, with minimum three officers in each shift, for round-the-clock operation and maintenance support of the augmented liquid cargo handling system.

vi. **Workmen:** One hundred forty seven workmen, ensuring minimum ~~ten~~ forty two workers per shift (six workers per jetty per shift and six workers at common manifold area), with basic knowledge of liquid cargo jetty pipeline operation, pigging assistance and routine maintenance of the revamped corridors and associated facilities.

vii. **Fitters:** Two mechanical fitters in general shift for maintenance jobs related to the new and revamped pipelines, supports and structural elements.

viii. **Housekeeping Workmen:** Two workmen in general shift for housekeeping of pipeline corridors, trestles, manifolds and associated structural areas covered under the augmentation / revamping scope.

ix. **Welder and Rigger:** Two mechanical welders and one rigger and two helper in general shift for maintenance jobs related to the new and revamped pipelines, supports and structural elements.

x. **Electricians:** Four electricians, one in each shift round the clock including Sundays and holidays, for electrical systems and instrumentation associated with the augmented liquid cargo handling facilities (e.g. heat tracing).

Minimum qualification / Experience criteria

Jetty / Pipeline In-Charge

Degree in Engineering (Chemical / Mechanical) with minimum 8 years of experience in operation and maintenance of liquid cargo jetty / cross-country pipelines or similar facilities, including at least one revamping / augmentation project. He should have

knowledge of ISGOTT norms and relevant OISD standards, good leadership qualities and ability to lead and motivate a team of engineers / operators for effective performance, with sound knowledge of safety and maintenance activities.

Shift In-Charge
Degree in Engineering (Chemical / Mechanical / Instrumentation) with minimum 4 years of experience in operation and maintenance of liquid cargo jetty pipeline systems or similar facilities. He should have knowledge of ISGOTT norms and minimum 2 years' experience related to tanker / jetty / marine liquid cargo operations or pipeline transfer, with a basic understanding of tankers and tanker operations.

Maintenance Officer
Degree in Mechanical Engineering with minimum 3 years of experience in maintenance of oil and gas terminals and / or liquid cargo pipeline networks, preferably including piggable pipelines and associated structural supports.

Shift Officers
Minimum Engineering Graduates with 2 years' experience or Diploma Engineers with 5 years' experience, in (Chemical / Mechanical / Instrumentation) disciplines in the field of liquid cargo jetty / terminal / pipeline operation and maintenance.

Safety Officer
Minimum Engineering Graduate (as per applicable Factories Act requirements) with 2 years' experience, or Diploma Engineer with 5 years' experience, in HSE / safety in oil and gas terminals, liquid cargo jetties or pipeline projects, familiar with ISGOTT, OCIMF, OISD and statutory safety regulations

Workmen
Minimum 10th pass with at least 3 years' experience in liquid cargo handling at jetty / terminal or operation and maintenance of product pipelines or similar facilities.

Electrician Minimum NCTVT /ITI, should be a Electrical license holder with experience of three years at jetty or in similar field.

Fitter/ Welder
Minimum NCTVT / ITI in Mechanical trade with at least 3 years' experience in piping / structural maintenance at liquid cargo jetties, terminals or similar industrial facilities, preferably involving revamping or modification works on pipelines and supports.

Note on Manpower: Sub contracting is allowed for engaging semi-skilled and skilled employees.

RESPONSIBILITIES

Role of Shift In-Charge
Collect hourly pipeline data (pressure, temperature, flow, batch/product details) for each active transfer and maintain Shift Log Book / Pipeline Log Book.
Communicate with tank farm operators, Port / jetty control, agents, surveyors and Employer's officers on day-to-day issues related to pipeline line-up, change-over,

pigging and shutdown, under guidance of the Pipeline / Jetty In-Charge.
Monitor access control for personnel working in pipeline corridors / manifolds and ensure entries are as per Employer's security procedures; check permits / clearances for work and visitors.
Maintain and update operational and preventive maintenance records related to the revamped pipeline network, and verify that third-party personnel working on the pipelines comply with PPE and work-permit requirements.

Role of Field Officer 1 (Operations)
Coordinate daily with Port / jetty control, Employer and representative of tank farm users on vessel schedules and required pipeline line-ups and transfer plans linked to the common / dedicated pipelines.
Support ISGOTT ship-shore safety checks from the pipeline side and ensure all required pipeline-side conditions (valves, pressure limits, over-pressure protection) are addressed before giving clearance for start of transfer through pipelines in scope.
Perform periodic rounds on manifolds, trestles and exchange-pit headers during transfers, checking for leaks, abnormal vibrations, temperature / pressure deviations and ensuring prompt reporting / corrective action; prepare daily and monthly operational reports for pipeline utilisation.
Conduct toolbox talks / safety talks with workers engaged on pipeline operations and minor maintenance and report unsafe acts / conditions and near-misses to the Location / Pipeline In-Charge.

Role of Field Officer 2 (Pigging & Maintenance)
Plan and supervise pigging operations on pipelines in scope (pig launching, tracking and receiving), ensuring full compliance with safety precautions, venting / depressurisation and gas-testing requirements.
Coordinate with Employer's electricians / other vendors for maintenance affecting pipelines: testing of dock / approach lines, painting of exposed lines, hot-work on supports, and ensure permits, isolation and fire-watch arrangements are in place.
Execute preventive maintenance on valves, pig traps, supports and associated equipment as per Employer-approved schedules and maintain housekeeping along pipeline tracks, manifolds and exchange-pit areas.
Verify that intermediate lines and designated sump / drain systems linked to the pipelines are maintained in safe condition (no unintended liquid hold-up) before and after transfers or pigging, and coordinate fire-water / firefighting system checks related to pipeline corridors.

Role of Jetty / Pipeline In-Charge
Monitor berth / vessel status and associated pipeline requirements on a daily basis with Port / Employer / Representative of tank farm users, and brief shift officers on the previous day's operations, issues and planned activities.
Participate in berthing / operations meetings as required to discuss pipeline availability, constraints and planned maintenance, and verify daily reports, registers and records for correctness and completeness.
Coordinate with the Employer's engineering / maintenance officers on pending and upcoming maintenance on the pipeline network, including planning of outages, nitrogen requirements, consumables and spares, and ensure timely arrangement / payment within approved budgets.

Plan and monitor training programmes for engineers and workers on pipeline operation, pigging, HSSE and emergency response; certify subcontractor bills related to pipeline O&M after checking supporting records.
Ensure all activities on the pipeline network are performed as per Employer's SOPs and statutory requirements, including work permits, boundary management of subcontractors and timely reporting / investigation of incidents and near-misses.

Vessel - related operations (pipeline scope)

The Bidder shall support safe vessel discharge / loading operations at the oil jetties to the extent related to the common / dedicated pipelines and pigging facilities covered under this contract, in compliance with ISGOTT and other applicable guidelines.

a) Coordinate with Port / Terminal / Shipping agents and tank farm operators for pre-berthing and post-berthing information relevant to pipeline line-up, transfer rates and pigging plans, and obtain required details immediately after berthing schedules are finalised.

b) Coordinate with the Port / Jetty operator so that ship manifolds are aligned with the designated loading arm / hose connection points linked to the common pipeline headers, and record relevant operational timings for pipeline transfer records.

c) Ensure that, before starting transfer through the pipelines in scope, clearance to be obtained from the terminal boarding officer regarding ship/shore readiness, the ship-shore safety checklist as per ISGOTT is completed by the concerned tank farms, and that pipeline-side conditions (valves, pressure, vents, pig traps) are ready and safe for operation.

d) Coordinate with receiving tank farms to line up the shore pipeline system to the ship's manifold via loading arms / hoses, and brief them on the status of the shore lines, manifolds and pigging / air / nitrogen systems so that any quality / contamination issues are avoided.

e) Ensure safe line-up of valves on the pipelines and manifolds under this contract prior to commencement of loading / discharge, in consultation with vessel personnel / terminal operators, and ensure that only fit-for-service hoses / arms certified by the jetty operator are used.

f) Monitor liquid transfer through pipelines within the scope by maintaining jetty / control-room logs, recording hourly flow, pressure and receipts at terminal end, and highlight any abnormal variations for joint review with the Employer / terminal operator.

g) After completion of discharge through the pipelines in scope, ensure safe shutdown and depressurization, disconnection from pig traps / manifolds, stripping of

lines where required and routing of stripped product to designated tanks or slop systems as per the Employer's instructions.

h) Carry out or supervise pigging of the common / dedicated pipelines covered under this contract, using compressed air or nitrogen as specified, and coordinate with terminal operators at the receiving end for pig receipt, depressurization and line clearing.

i) Where pigging is carried out from or into other operators' terminals, depute suitable personnel to supervise safe pig launching / receiving and ensure that the activity is performed in accordance with agreed procedures.

j) Arrange for nitrogen required specifically for pigging / purging of pipelines under this contract; where agreed, the cost and applicable service charges will be reimbursed by the Employer as per the terms of the Schedule of Rates.

k) Use the communication systems (VHF, telephones, radios) provided by the Employer / Port for effective coordination between jetty, terminal and control room for all pipeline and pigging operations.

l) Arrange shifting of pigging-related equipment (air compressors, pig cups, etc.) between designated locations when required for operations related to pipelines in scope, without additional mobilization charges beyond those provided for in the contract

m) Maintain adequate stocks of consumables required for pipeline operation and pigging (grease, lubricants, pig cups / foam pigs, etc.) as per experience, so that transfer and pigging operations are not interrupted for want of such items; where reimbursement is provided for certain consumables, submit supporting documents as specified.

n) Operate and maintain the exchange-pit manifolds associated with the revamped pipeline network, including all line-up, change-over and pigging-related operations at the exchange pit in coordination with tank farm representatives.

o) When Employer-provided compressors or utilities located at other facilities are used for pigging of the pipelines under this contract, depute an officer to coordinate operation of such equipment and maintain detailed logs for the duration of pigging.

p) Issue operational notices or letters (such as letters of protest on pipeline-related issues) to vessels or third parties and /or tank farm user of pipelines when instructed by the Employer, based on records maintained under this contract.

q) For negligence or default attributable to the Bidder in performing duties under this pipeline O&M contract that leads to vessel-related penalties or port charges, the Bidder shall be liable as per the terms of the conditions of contract, to the extent such penalties are proven by mutually appointed third party agency to arise from the Bidder's actions or omissions.

- **No. and Size of Pipelines from each jetty and details of Equipments and accessories.**

1. OJ -1 (14" CS 4 Nos), (10" CS 1Nos) (4"GI 3 Nos) (3" GI 2 Nos)
2. OJ -2 (14" CS 4 Nos), (10" CS 1Nos) (10" SS 9 Nos) (4"GI 3 Nos) (3" GI 3 Nos)
3. OJ -3 (14" CS 4 Nos), (10" CS 1Nos) (10" SS 8 Nos) (4"GI 3 Nos) (3" GI 3 Nos)
4. OJ -4 (14" CS 4 Nos), (10" CS 1Nos) (10" SS 8 Nos) (4"GI 3 Nos) (3" GI 3 Nos)
5. OJ -5 (14" CS 1 Nos), (10" CS 1Nos) (10" SS 3 Nos) (4"GI 3 Nos) (3" GI 2 Nos), (6"GI 1 No) and (8"GI 1 No)
6. OJ -7 (14" CS 4 Nos), (8" GI 1Nos) (4"GI 2 Nos)
7. Pipeline Accessories' (Gate valve, Pressure Gauge, Gasket, Ball Valve, Flanges, Nut and Bolts)
8. Slop Tank Capacity 600 cubic m and accessories (Slop tank and pump facility of sufficient capacity with all piping facilities to be constructed at site as per the design standards.)
9. The system includes supply and installation of two air compressors one main and one stand-by with receivers as also air lines from compressor station to Y junction and to all the Jetties.
10. Heat Tracing: chemical lines to be provided heat tracing as enunciated in Employer's Requirements
11. Insulation Details: The insulation thickness normally 2". (CS Pipe Insulation Fibrous Material (Rock or Glass Wool): Can be used for all piping other than electrical traced pipes up to 125°C.) (SS Pipe Insulation Rigid Material (Calcium Silicate, can be used for all piping other than electrical traced pipes up to 125DegC. Can be used for all temperatures.) (Cellular glass and Polyisocyanurate Can be used for all piping including electrically traced piping for service temperatures below 125oC (with electrical and steam tracing the maximum metal temperature reached by tracer in order to conduct the requisite heat into the pipe shall be the deciding factor).
12. N2 Details Contractor Not Submitted and Tender condition is provided N2 plant only mentioned

OPERATIONAL PROCEDURES

Pre-Operation Phase (24-48 hours before vessel berthing)

Port Notification & Information Receipt

Responsibility: DPA → DAACPO

Timeline: 48 hours before berthing

Information to be provided:

- Vessel name, IMO number, flag state, size (DWT)

- Berth assignment (OJ-1 to OJ-5, OJ-7)
- Expected date, time of arrival
- Cargo type, quantity, temperature requirements
- Terminal operator details and contact information
- Cargo transfer priority matrix (if multiple cargoes)
- Bunkering requirement
- Ship manifold nos and the sizes available

DAACPO Pre-Berthing Checklist

i. Vessel information logged in MIS system
ii. Cargo type verified against pipeline classification matrix
iii. Required common pipelines identified and reserved
iv. Flexible hoses inspected and pressure-tested, if hoses are supplied by DPA.
v. Compressed air/nitrogen availability confirmed
vi. Slop tank capacity verified (ensure 30% minimum free capacity)
vii. Team briefing conducted with shift in-charge
viii. Emergency response plan reviewed with all personnel
ix. Weather forecast and tidal conditions reviewed
x. Safety permits and gate passes prepared
xi. Equipment status checklist completed
xii. Coordination meeting scheduled with terminal operators

Equipment Readiness Verification

Flexible Hoses (Annually Inspected, Pressure-Tested)

1. Visual inspection for cracks, wear, corrosion
2. Pressure test certificate available (1.5× working pressure) Gaskets and ferrules checked for degradation
3. Rapid coupling systems tested for smooth operation
4. Inventory: Maintain 20% spare stock

Manifold at Y-Junction

1. Valves are checked for smooth operation
2. Pressure gauges calibrated and functional
3. Isolation blinds verified in secure condition
4. Slop line integrity confirmed
5. Safety relief valves set per specifications

Compressed Air System

1. Compressors running at full capacity
2. Dryer filter pressure differential monitored
3. Receiver tank pressure: xxx
4. Moisture content: <3 ppm (monitored with hygrometer)
5. Oil separator functioning properly

4.2 Cargo Transfer Operations – **IMPORT** (Ship to Shore)

4.2.1 Sequence of Operations (20 Steps)	
Step 1-5: Connection and Setup	1. Cargo type and pipeline assignment DAACPO reviews cargo manifest vs. pipeline classification matrix Confirms pipeline compatibility with cargo characteristics Assigns appropriate CP to terminal operator Informs terminal operator and records in logbook
	2. Terminal operator connects flexible hose at ship end Connects to correct cargo outlet on vessel Inspection by DAACPO representative for proper fit Connection pressure tested: verify no leaks Time and pressure recorded
	3. DAACPO connects hose at jetty manifold Connects to assigned common pipeline inlet Uses standard gaskets (verify material compatibility) Pressure test: hold for 30 seconds, verify pressure drop <1 psi Digital photos of connection for records
	4. DAACPO connects hose at Y-Junction manifold Connects to correct outlet of assigned CP Isolation valve (upstream) verified in open position Downstream isolation valve to terminal operator pipeline Pressure gauge readings recorded
	5. Terminal operator connects hose to their tank farm pipeline Connects at Y-Junction to their receiving pipeline Verifies pipeline is empty (initial purge if required) Safety isolation verified Coordination with tank farm operations confirmed
Step 6-8: Pressure and Safety Setup	6. DAACPO informs maximum safe operating pressure Pressure limit based on pipeline design Maximum allowable pressure communicated in writing Pressure relief valve setting verified All personnel briefed on pressure limits
	7. Terminal operator initiates cargo transfer Pump started at low speed initially (ramp-up) Pressure monitored continuously (Shift Officer responsibility) Flow rate recorded hourly Temperature monitored if cargo temp-sensitive

	8. Continuous monitoring during transfer Shift Officer maintains hourly log: pressure, flow, temperature Vessel manifold pressure vs. tank farm pressure comparison Alert thresholds: pressure >105% of max pressure = immediate stop Any abnormal variation documented Communication maintained via VHF/telephone
Step 9-13: Cargo Clearing Operations (vessels or third parties and /or tank farm user of pipelines)	9. Terminal operator notifies completion of transfer Cargo transfer stopped Final quantity recorded and signed off by surveyor Time of completion logged
	10. Cargo clearing – PIG operation (Phase 1) First dry PIG launched from jetty end Compressed air pressure: 2-3 bar (controlled) PIG traverses pipeline from jetty → Y-junction If diameters compatible: PIG continues to terminal tank Terminal operator receives and disposes of PIG Document: PIG launch time, condition, receipt confirmation
	11. Cargo clearing – PIG operation (Phase 2) Second dry PIG launched to remove trace cargo Objective: ensure no cargo remains in CP section Pressure maintained at 2-3 bar Reception at Y-junction or terminal (diameter-dependent) Critical for safety: prevents contamination of next cargo
	12. Terminal operator disconnects flexible hose at ship Hose disconnected following standard procedure Any residual cargo in hose carefully handled Hose capped and stored
	13. Hose verification and handling slop DAACPO inspects hose for contamination Any slop (residual cargo) transferred to slop line Flexible hose cleaned at jetty using designated washout Connections inspected for residual contamination
Step 14-17: Pipeline Cleaning Operations (vessels or third parties and /or tank farm user of pipelines)	14. Flexible hose disconnection at Y-Junction Terminal operator disconnects hose from their pipeline DAACPO disconnects hose from Y-Junction manifold Slop generated during disconnection collected in collection tray Isolation valves at Y-Junction in open position
	15. Common pipeline cleaning – Protocol depends on cargo type EDIBLE OIL: 2 dry pigs, visual inspection COMMON CHEMICALS: Detergent + Caustic + Water protocol DEDICATED CHEMICALS: 3 dry pigs, visual inspection

	DETAILED PROTOCOL (Chemical Pipelines): a. Detergent wash: 2 kL water + 1.5-2 kg detergent Form column of cleaning solution Launch PIG to push through pipeline Residence time: 2-3 hours b. Caustic wash: 2 kL water + 10 kg NaOH Secondary cleaning for chemical residues Remove any organic compounds PIG launch to traverse pipeline c. Rinse water (Phase 1): 2 kL clean water + 1 PIG Remove caustic residue Monitor discharge water clarity d. Rinse water (Phase 2): 2 kL clean water + 1 PIG Final rinse cycle Collect final rinse water for testing
	16. Cleanliness verification (CHEMISTRY-BASED STANDARDS) Final rinse water analyzed for: **pH:** 6.5-7.5 units (neutral range) **UV-VIS Absorbance:** ≤0.05 units at 260-300 nm **Turbidity:** ≤5 NTU (Nephelometric Turbidity Units) If specifications NOT MET: Repeat cleaning protocol by the last tank farm user of pipeline until compliance achieved Record all iterations with timestamps
	17. Pipeline readiness confirmation Cleanliness certificates issued by authorized personnel of last tank farm user/surveyor as per point no.16 Pipeline isolation valves in proper positions Pressure gauges zeroed and verified Pipeline marked "CLEAN AND AVAILABLE" in logbook
Step 18-20: Final Steps	18. Manifold and line clearing Remove all temporary hoses at Y-Junction Drain any accumulated liquid to slop tank Pressure test manifold connections Valve positions verified as per standard operation
	19. Documentation and reporting Cargo transfer completion report prepared Quantities matched: vessel records vs. terminal records Invoicing documents prepared with surveyor sign-off Incident/anomaly reports (if any) submitted to DPA

	20. Terminal operator communication Notification sent: DAACPO ready for next cargo transfer Or: System secured if no further transfers planned Gate clearance issued to terminal operator

Cargo Transfer Operations – EXPORT (Shore to Ship)
Key Differences from Import
Export Specific Steps:

1. Cargo clearing by tank farm → Ship (alternative method)
2. Tank farm can push cargo back into pipeline using their pump
3. More efficient if ship needs quick undocking
4. Option: Use PIG from tank → jetty (DAACPO receives)
5. Diameter incompatibility handling
6. If tank pipeline ≠ common pipeline diameter:
7. Tank farm delivers PIG to Y-Junction
8. Tank farm user launches separate PIG from Y-Junction → jetty
9. Tank farm user receives and disposes PIG
10. Cleaning sequence (same as import)
11. Identical cleaning protocols apply
12. Same chemistry-based verification standards

MAINTENANCE OPERATIONS

Preventive Maintenance Schedule

Daily maintenance

Item	Frequency	Responsibility	Checklist
Pipeline Patrol	Every shift (3x / day)	Shift Officer	1. Visual inspection from jetty to Y- junction 2. Look for leaks, corrosion, loose connections 3. Document any anomalies 4. External damage
Pressure Gauge Check	3x daily	Shift Officer	1. All gauge zeroed when idle 2. Readings logged every 4 hours 3. Calibration status verified 4. Check clear visibility of gauge dial and no damage.
Flexible Hose Inspection	After each transfer	Field Officer	1. Visual for cracks, kinks, wear 2. Connections tight and sealed

			3. Color-coded tags indicating last test date
Slop Tank Level	3x daily	Field Officer	1. Level stick measurement taken 2. If >70% full: initiate disposal process 3. Keep at 10-50% during operations
Sleeper pedestal	Daily	Maintenance Engineer	1. Regularly inspect for structural stability, corrosion and cracks.
Compressed Air Quality	Every 4 hours	Maintenance Engineer	1. Moisture Content Check (hygrometer) 2. Oil content inspection 3. Pressure and flow rate verified
Valve	2x daily	Maintenance Engineer	1. Manual override test (Smooth Operation)
Housekeeping	Continuous	Housekeeping Staff	1. Jetty area debris-free 2. Spill cleanup immediate 3. Drains clear of obstruction

Change Management / Management of Change (MOC):

Any change in pipeline configuration, operating pressure, product type, pigging protocol, cleaning methodology or interface with third-party systems shall be carried out only through an approved Management of Change (MOC) procedure, duly reviewed and approved by the Employer.

Force Majeure & Extreme Weather Preparedness:
The DAACPO shall prepare contingency plans for cyclones, heavy rainfall, flooding, high winds, tidal surges and other force majeure events affecting pipeline safety and operations, and shall secure the system as per Employer's emergency instructions.

Weekly Maintenance

Item	Frequency	Responsibility	Scope
Pipelines	Weekly	Maintenance Engineer	Visual inspection for leaks, corrosion and external damage
Pipeline structure	Weekly	Maintenance Engineer	Visual inspection for cracks, corrosion or damage
Pipeline Insulation	Weekly	Maintenance Engineer	Check visible damage, moisture, or degradation.
Hose Pressure test	Weekly	Maintenance Engineer	Spot- check 2-3 flexible hoses at 1.5x working pressure for 30seconds
Compressed Air System	Weekly	Maintenance Engineer	Filter element inspection, receiver tank drain condensate, dryer regeneration

Gate Valve	Weekly	Maintenance Engineer	Lubricate pivot points; operate valves to maintain smooth movement.
Manifold Integrity Check	Weekly	Maintenance Engineer	Tightness of all manifold connections using torque wrench
Heat tracing	Weekly	Electrician	Inspect cables for visible damage.
Slop tank integrity	Weekly	Maintenance Engineer	External visual inspection for cracks, corrosion; internal sludge level

Monthly Maintenance

Item	Frequency	Responsibility	Scope
Comprehensive pressure test	Monthly	Maintenance Engineer	All common pipelines tested at 1.5x working pressure for 5 minutes each
Pipeline	Monthly	External Contractor (Coordinated by Maintenance Engineer)	Ultrasonic Thickness measurement at 6 key points per pipeline section, check for any scale buildup and clean needed (especially for SS pipe to preserve corrosion resistance)
Pipeline structure	Monthly	Maintenance Engineer	Check firmness and alignment
Pipeline insulation	Monthly	Maintenance Engineer	Clean insulation surfaces and check thermal performance
Heat tracing	Monthly	Electrician	Check insulation resistance and control system operation.
Gate valves	Monthly	Maintenance Engineer	Inspect valve packing and adjust if leaking.
Equipment Calibration	Quarterly	Maintenance Engineer	Pressure gauge calibrated against certified standard; temperature sensors checked
Emergency Equipment Check	Monthly	Safety officer	Tightness of all manifold connections using torque wrench

Annual Maintenance

Item	Frequency	Responsibility	Scope
Full pipeline	Annually	Maintenance Engineer	1. All common pipelines hydro test Conducted at 1.5x working pressure for 5 minutes each

			2. More thorough inspection including thickness measurement and potential repainting or coating for CS Pipes to avoid corrosion. SS pipes require less maintenance but need monitoring for chloride exposure.
Pipeline insulation	Annually	Maintenance Engineer	Repair or replace damaged insulation material, verify integrity of seals.
Gate valves	Annually	Maintenance Engineer	Disassemble and inspect internals (stem, seats, gaskets), lubricate moving parts as per OEM recommendation, replace worn components.
Compressed air system overhaul	Annually	Maintenance Engineer	Compressor valve inspection, filter element replacement, seal integrity check
Pipeline Structure	Annually	Maintenance Engineer	Repair cracks, replace corroded parts or damaged supports, and maintain concrete pedestals as per design requirements and potential repainting or coating.
Pressure Gauge	Annually	Maintenance Engineer	Disassemble, calibrate, verify internal components, replace and damaged parts.
Heat tracing	Annually	Electrician	Fill electrical testing and maintenance by qualified personnel, update documentation.
Slop tank thickness survey	Annually	External Contractor	Non - destructive thickness measurement of tank walls; corrosion assessment
Safety & Environmental Audit	Annually	External Agency (Coordinated by Safety officer)	Compliance with OISD, environmental regulations, incident trends review

Slop Disposal Procedure

Selection of Disposal Agency:
Requirement: PESO (Petroleum Explosives Safety Organization) licensed
Approval: DPA nominates pre-qualified contractors
DAACPO Responsibility: Coordinate with contractor, arrange pickup
Disposal Contract Terms:
Disposal Process Flow:

1. NOTIFICATION (when slop tank reaches 50%)
1. DAACPO notifies contractor (telephone + email)
2. Contractor provides estimated arrival time

2. PREPARATION (before contractor arrival)
1. Verify slop tank contents (check for incompatible materials)
2. Ensure environmental containment in place
3. Prepare paperwork: manifests, waste characterization
4. Brief safety requirements to contractor personnel

3. LOADING (contractor's tanker truck)

1. Position truck at designated loading point
2. Connect transfer hose to tank outlet
3. Activate pump (contractor's responsibility)
4. DAACPO monitoring: flow rate, duration
5. Measure volume using calibrated gauge
6. Document initial & final gauge readings

4. DOCUMENTATION

1. Waste manifest: signature by contractor, DAACPO, DPA
2. Volume certified by mutually agreed measurement
3. Treatment facility details & license numbers
4. Disposal completion certificate (received later)
5. Cost invoice for billing terminal operator

5. POST-DISPOSAL

1. Tank flushed with clean water (if required)
2. Residual sludge removal (annually)
3. Update MIS: volume disposed, date, cost
4. Maintain records for 3 years (regulatory compliance)

ENDORSEMENT OF PERSONS TO BE DEPLOYED BY THE CONTRACTOR

The persons to be deployed must strictly meet the minimum qualification and experience criteria specified in this tender and as per the organogram approved by the Employer. In case, in the opinion of the Engineer-in-Charge / Terminal-In-Charge, any deployed person is found not suitable for the work, the Bidder shall ensure immediate replacement of such person at no extra cost to the Employer.

The DAACPO shall provide details of deployment of minimum manpower (officers / supervisory staff and workmen) for this job. The successful Bidder shall submit bio-data for all supervisory / management staff and workmen proposed to be deployed for operation and maintenance of the revamped liquid cargo pipeline network and associated structural facilities, and shall obtain formal written clearance from the Employer before deployment. All contract staff and workmen shall undergo a suitability / competency assessment and/or interview conducted or approved by the Employer.

The DAACPO shall possess a valid Labour License and registrations under PF, ESI and any other applicable statutory schemes, along with PAN and any other NOC / license or permission required from statutory authorities / Government departments for deploying manpower at the Oil Jetty Area. All persons deployed shall be certified as medically fit for working in jetty / hazardous area duties by a competent registered medical practitioner, and such medical fitness shall be maintained and periodically renewed for the duration of the contract as specified by the Employer.

Liaisoning and Documentation Activities:

i. Ensure proper and safe custody of all statutory documents, records, drawings, equipment manuals and data related to the revamped liquid cargo pipeline network and associated structural facilities handed over to the Bidder for reference and use.
ii. Prepare all statistical information and MIS reports related to operation and maintenance of the augmented liquid cargo handling system (including pipeline utilization, pigging, cleaning, incidents and maintenance activities) as required by the Employer and adhere to the prescribed timelines.
iii. Coordinate with internal / external audit teams and assist the Employer in providing information and clarifications required for audit queries concerning the operation and maintenance of the revamped pipeline network.
iv. Carry out correspondence within and outside the organization on the Employer's instructions in matters related to the augmented liquid cargo handling facilities, including coordination with port departments and terminal operators where required.
v. Compile periodic operational data (such as vessel / product movement through the common pipeline system, line allocations, quantities transferred and cleaning / pigging records) and maintain consolidated monthly statements as required by the Employer.
vi. Where required by the Employer, assist in certification / verification of quantities transferred through the pipeline system based on bill of lading, shore measurements and tank ullage reports, and prepare summary sheets to support invoicing or reconciliation.
vii. Verify relevant documents related to pipeline operations issued by terminals / agents / surveyors as instructed by the Employer.
viii. Maintain vendor / contractor records for various works carried out on the pipelines and associated structural facilities at the jetty.
ix. Maintain details of materials procured and services availed for operation and maintenance of the revamped pipeline network and associated structures.
x. Maintain records and history cards for all equipment and instruments related to the augmented liquid cargo handling system (including pigging equipment, valves, manifolds and structural elements), and integrate these with preventive maintenance schedules in line with applicable OISD / statutory requirements where relevant.
xi. Operate and maintain the gate pass / access control system for contractor personnel deployed for pipeline and structural works, and issue site clearances / work permits as per the Employer's procedures.
xii. Maintain all additional records, registers and documents as may be specified by the Employer from time to time for effective management, operation and maintenance of the augmented liquid cargo handling facilities.

The DAACPO shall ensure that all staff and workmen deployed under this contract are medically fit and shall undergo complete medical fitness check-up / tests through a registered medical practitioner prior to deployment. Medical clearance / approval shall be obtained from the Employer on the basis of such medical fitness certificates. All access permits / gate passes shall be issued or renewed only after medical clearance is granted by the Employer.

Medical check-ups shall be carried out at the commencement of work under this contract

and thereafter at intervals not exceeding six months for all persons regularly working in the jetty / pipeline corridor area. All costs of medical fitness tests, including consultation fees and associated expenses, shall be borne by the successful Contractor. The Contractor shall ensure timely renewal of all access permits / gate passes for its personnel as per the security procedures prescribed by the Port / Employer.

Safety

i. The Bidder shall provide appropriate Personal Protective Equipment (PPE) such as safety shoes, safety helmets, protective clothing, safety goggles, ear-plugs, life buoys and any other PPE required as per applicable standards to all staff and workmen. PPE shall be worn correctly at all times during operation and maintenance activities within the oil jetty and pipeline corridor areas.

ii. The Bidder shall conduct safety training for all its staff, drivers and contract employees, and shall arrange and maintain First-Aid boxes at suitable locations in the jetty / pipeline corridor working areas and site offices. Training shall include, as a minimum, safe work practices, emergency response and First-Aid measures, and shall cover all employees at least once in a year or at intervals specified by the Employer.

iii. In case of any change in safety rules, regulations, codes or Employer's safety procedures applicable to the works, the same shall be communicated to the Bidder, and it shall be binding on the Bidder to comply with such updated requirements without additional cost to the Employer.

iv. The Safety Officer designated by the Bidder shall act as Safety-in-Charge for this contract and shall ensure compliance with the Employer's HSSE requirements, OISD guidelines and other applicable statutory provisions in all activities related to operation and maintenance of the revamped pipeline network and associated structures.

The Safety Officer shall:

i. Ensure that all employees of the Bidder are trained and participate in safety drills and emergency response exercises as per the Employer's directions.

ii. Facilitate identification and reporting of near-miss incidents and ensure timely implementation of corrective and preventive measures.

iii. Monitor the status and effectiveness of safety devices and systems relevant to the work (such as gas detectors, alarms, emergency shutdowns and escape arrangements) and ensure they are kept in operational condition at all times.

iv. Assist the Employer in complying with safety audit recommendations related to activities under this contract.

v. Identify unsafe conditions and unsafe acts within the work area, carry out or initiate root cause analysis (RCA) where required, and implement improvements in coordination with the Employer.

vi. The Bidder shall conduct regular (at least weekly) safety talks / toolbox meetings and maintain records of attendance and topics discussed. The Safety Officer shall oversee that all operational and maintenance activities are undertaken with appropriate safety measures and precautions, and no unsafe operations or maintenance work shall be permitted under this contract.

vii. Others:

viii. Fire water, utility water, drinking water and electrical power required for operation of the facilities will be provided at designated points by the Employer / Port Authority, to the extent specified in the tender documents. Any further distribution, temporary connections and utilization shall be arranged by the Bidder at his own cost and responsibility, in compliance with applicable safety and statutory requirements.

ix. All operations within the scope of this contract related to the revamped pipeline network and associated structural facilities shall be monitored and controlled by responsible officers of the Bidder deployed at site.

x. Where canteen or catering facilities are not available within the work area, the Bidder shall make necessary arrangements for his staff and workmen without any liability on the Employer.

xi. All records required under this contract shall be maintained in complete, accurate and up-to-date form, and shall be made available at any time to the Employer and to statutory / regulatory authorities for audit or inspection.

xii. The Bidder shall be liable to pay any compensation to its employees under the Workmen's Compensation Act and shall strictly observe and comply with all applicable labour and industrial laws, such as Minimum Wages Act, Contract Labour (Regulation & Abolition) Act, Industrial Disputes Act and any other relevant legislation, as amended from time to time.

xiii. The Bidder is expected to take care of boundary management and interface issues related to his activities in the jetty / pipeline corridor area and shall ensure that his operations do not encroach upon or adversely affect adjacent facilities.

xiv. The Employer / Port Authority shall not be responsible for any loss, breakage or theft of the Bidder's materials, equipment, tools or personal belongings, for which the Bidder shall make his own arrangements for safe custody.

xv. The Bidder shall ensure that no worker or staff member consumes alcohol, drugs or tobacco products in any form during working hours or within the designated work areas.

Housekeeping:

The successful Bidder shall maintain excellent housekeeping in all areas under this contract, including jetty platforms, pipeline corridors, trestles, manifolds and associated access ways. This shall include daily cleaning of walking surfaces, prompt clearing of any product spills within the Bidder's scope, removal and disposal of unwanted vegetation and litter, and periodic grass cutting in the jetty area and along the pipeline track within the defined limits.

Office Setup and MIS:

The Bidder shall provide suitable office facilities at site, including at least one PC with printer and internet connection for shift officers and the In-Charge responsible for operation and maintenance of the revamped pipeline network. The Bidder shall maintain all Management Information System (MIS) records related to operation and maintenance of the augmented liquid cargo handling system (including pipeline utilisation, pigging, cleaning and maintenance) in formats specified or approved by the Employer.

TRANSPORT FACILITY:

The Bidder shall arrange its own transportation and accommodation for staff and workmen. In addition, the Bidder shall provide the following vehicles for use in connection with operation and maintenance of the revamped pipeline network and associated facilities:

i. One utility vehicle with driver on 24-hours basis for the entire contract period, for transporting pigs, tools and tackles, consumables, small equipment, and for attending to emergencies and maintenance activities. All costs related to the vehicle (including maintenance, driver wages and fuel) shall be borne by the Bidder.

ii. One light vehicle (e.g. jeep / car) with driver available daily for a minimum of 15 hours (e.g. from 07:00 hrs to 22:00 hrs, or as specified by the Employer) for attending to urgent jobs, meetings and local travel between site and Employer / Port departments. All costs related to the vehicle (including maintenance, driver wages and fuel) shall be borne by the Contractor.

iii. Drivers of the above vehicles shall be well disciplined, in proper uniform, and shall be provided with a mobile phone or equivalent means of communication by the Contractor.

iv. In case any vehicle is unavailable for any reason, the Contractor shall provide a suitable replacement vehicle without interruption of service

v. Drivers and vehicles shall comply with all applicable labour, motor vehicle and transport laws, and all statutory obligations in this regard shall be the sole responsibility of the Contractor.

The above vehicles shall be properly maintained to ensure their full availability, and shall operate as per the instructions of the Employer's authorized representatives. All costs for providing and operating these vehicles shall be included in the Contractor's quoted rates. Kilometer capping and typical routes may be finalized after mutual discussion with the Employer.

OPERATION AND MAINTENANCE PERIOD

- O&M shall commence from date of commissioning certificate of last pipeline section and continue for 5 years.
- During 24-month Defect Liability Period O&M contract, manufacturing/installation defects shall be rectified by EPC contractor at no cost to DPA. O&M contractor shall handle normal wear-tear maintenance only.
- During the Defect Liability Period (as specified in the EPC contract), manufacturing and installation defects attributable to the EPC scope shall be rectified at no cost to the Employer. The O&M Contractor shall coordinate such rectification while continuing routine O&M activities.

CONTRACTOR OBLIGATIONS

For any damage, breakage or loss of any equipment, material or property of the Employer arising out of acts / omissions of the Bidder, the Bidder shall make good the same at his own cost; failing this, the cost shall be recovered from his security deposit or any other sums due or becoming due under the contract.

The DAACPO shall maintain a proper inventory of all items, equipment and tools placed at his disposal by the Employer for operation and maintenance of the revamped pipeline network and associated structural facilities, and such inventory shall be jointly verified by the Contractor and the Employer's representatives at intervals specified by the Employer.

The DAACPO shall maintain minimum critical spares for valves, pigging accessories, gaskets, seals, hoses, gauges, fittings and consumables as per an Employer-approved spare list, and ensure availability at all times to avoid operational delays. All critical spares for various equipments and all consumables such as Pigs for pigging, Diesel for air compressor, lubricants for equipments, Nitrogen for pigging, detergent / caustic / pigs for cleaning of pipelines, etc will be provided by DPA or reimbursed at actuals to O&M Operator by DPA, if these are to be procured by O&M operator as per approval of DPA.

AMC for all critical equipments will be under the scope of DPA. However, O&M contractor shall coordinate with AMC agencies appointed by DPA for execution of works as per the schedule.

Minor maintenance such as lubrication, greasing, etc shall only be part of O&M Operator's scope.

Major maintenance such as repair/replacement of any pipelines / structures / valves, painting of pipelines, repair/replacement of any equipment like pumps, compressor, etc shall in the scope of DPA. However, O&M contractor shall coordinate with the agencies appointed by DPA for execution of works.

The Employer reserves the right of free access, through its authorized representatives, to inspect the pipelines, corridors, trestles, manifolds and associated facilities and equipment at all times, without prior notice.

The DAACPO shall be responsible for coordination, supervision and protection of the pipeline system during any third-party work within or near the pipeline corridor and shall immediately report any unsafe condition or damage risk to the Employer.

The DAACPO shall perform the services efficiently so as to ensure safe, reliable and uninterrupted operation of the augmented liquid cargo handling facilities. In case the Contractor is found to be persistently non-performing or creating hindrance to effective utilization of the revamped pipeline network, the Employer reserves the right to take such action as deemed fit, including termination of the contract in accordance with the conditions of contract.

The DAACPO shall ensure that occupational health check-ups of its staff deployed under this contract are carried out at intervals not exceeding six months, in accordance with Employer's norms and applicable statutory requirements, and shall maintain relevant records.

The DAACPO shall operate all facilities within the defined scope at the liquid cargo jetty related to the revamped pipeline network and associated structures, and shall coordinate with the Employer for interfaces with other systems (such as firefighting and pollution control) as per instructions issued from time to time.

The DAACPO shall fully coordinate and provide all assistance during third-party inspections and audits (technical, safety, operational, statutory or otherwise) related to the augmented liquid cargo handling facilities.

The DAACPO shall obtain and maintain, at his own cost, all necessary entry permits / gate passes for his officers and workmen for access to the oil jetty and pipeline corridor areas, as per the procedures of the Port / Employer and security agencies.

The DAACPO shall provide appropriate personal protective equipment (PPE) to all its workers and staff, such as safety helmets, safety goggles, chemical splash goggles, hand gloves, safety shoes and other PPE as required for the nature of work, using only reputed and approved makes, and shall ensure that the same are used and maintained in good condition at all times.

The DAACPO shall maintain all registers and records required under applicable labour laws, which shall include but not be limited to:

a. Register showing details of workmen
b. Attendance register
c. Wages register

d. Attendance cards / identity cards issued to workers.
e. Wage slips
f. Register of deductions for damage or loss
g. Fine register
h. Advance register
i. Overtime register
j. Employment card
k. Bonus register
l. Leave register under the Factories Act or other applicable law
m. PF challans and supporting documents for contributions deposited for the previous month.
n. Annual PF statement duly acknowledged by the PF department.
o. Copy of PF code and allotment letter and other social security registrations.

The DAACPO shall also maintain any other statutory records and registers applicable to him, in addition to the above, as may be required under prevailing laws or as informed by the Employer from time to time.

CONDITIONS OF WORK:

Efficiency, promptness, quality of service, good behavior, courtesy and politeness of the Bidder and his staff are essential conditions of this contract.

The DAACPO / his authorized representatives shall personally supervise, on a daily basis, all work and services carried out under this contract within the oil jetty and pipeline corridor areas, and shall execute the work strictly in accordance with the conditions of contract and Employer's instructions.

The Bidder shall ensure regular and effective supervision and control of all personnel deployed by him and shall give suitable directions for proper discharge of contractual obligations. If at any time during the tenure of the contract it is observed that any workman / supervisor employed by the Bidder is inefficient in performing duties, or is guilty of misconduct, or is otherwise considered unsuitable by the Employer for execution of the work, the Bidder shall immediately withdraw such person from the site and replace him at no extra cost to the Employer.

PERFORMANCE STANDARD

The Bidder's performance will be regularly monitored on, but not limited to, the following parameters:

a. Regular and effective maintenance of pipelines, valves, manifolds and associated structural / mechanical equipment to minimize breakdowns and ensure high availability of all facilities under their control.

b. Fulfillment of training requirements for all deployed personnel as per the Employer's targets and schedules, including safety, operational and maintenance trainings related to the augmented liquid cargo handling system.

c. Maintaining a high standard of safety performance with the objective of zero accidents and minimized incidents / near misses during operation and maintenance of the revamped pipeline network.
d. Efficiency in supporting vessel operations through timely line-up, pigging support, change-over and restoration of pipeline availability as per agreed operational plans
e. Compliance with ISGOTT and other applicable international guidelines related to ship-shore interface, to the extent relevant to pipeline operation and line-up.
f. Conformance to the Employer's HSSE standards and relevant OISD / statutory requirements applicable to liquid cargo jetties, pipelines and associated facilities.
g. Accuracy, completeness and timeliness of operational and maintenance records related to pipelines and associated structures, including logs, MIS reports and history cards, as prescribed in this tender.
h. All electronic records, MIS data and operational logs maintained by the Contractor shall be protected against unauthorized access, loss or tampering, and backups shall be taken periodically as per Employer's IT / data security guidelines.
i. Key Performance Indicators (KPIs) such as pipeline availability, response time to incidents, documentation accuracy, safety performance and compliance shall be monitored, and linked to performance incentives / penalties as specified in the Contract Conditions.

PAYMENT TO WORKMEN:

a. The DAACPO shall strictly comply with all applicable labour laws and rules and shall submit monthly records / returns to the Employer, as required, in proof of such compliance.
b. The DAACPO shall strictly follow all provisions of the Minimum Wages Act, Contract Labour (Regulation & Abolition) Act and all other labour and industrial laws applicable to workers engaged under this contract.
c. The DAACPO shall obtain and maintain all necessary licenses and registrations from the competent licensing / statutory authorities wherever applicable.
d. Monthly wages / salary of staff and workmen shall be paid on or before the 7th of every month, only through bank transfer or other traceable electronic mode, and payment records / bank statements shall be submitted to the Employer as and when required.
e. Weekly off / rest days shall be provided to all employees as per applicable law and adequate manpower shall be maintained at all times to ensure that contractual obligations are fully met; unauthorized absenteeism shall not be permitted.
f. The successful Contractor shall arrange a suitable group insurance policy (or equivalent accident insurance) to cover employees in addition to coverage under the Workmen's Compensation Act or Employees' Compensation Act, as applicable.
g. The successful Bidder shall not employ any contract labour or employee below 18 years of age.

h. Where the Contractor engages inter-state migrant workmen, he shall obtain and maintain a valid license / registration under the Inter-State Migrant Workmen Act (or any successor legislation), as applicable.

i. The DAACPO shall issue identity cards to all employees and contract labour deployed under this contract.

j. The DAACPO shall duly remit all statutory contributions (including the employee's and employer's contributions towards Provident Fund and other social security schemes) in respect of all personnel deployed under this contract, within prescribed timelines.

k. The DAACPO shall provide suitable uniforms to all employees, including office staff where required, and shall ensure that uniforms are kept neat, tidy and in wearable condition.

l. The Employer shall not be liable to pay any compensation in respect of any disease, injury or fatality caused to the workers of the Bidder; such liability shall rest solely with the Bidder.

m. The DAACPO shall pay compensation in case of accidental injury / death in accordance with the provisions of the Workmen's / Employees' Compensation Act, 1923 (or applicable legislation). For this purpose, the Bidder shall take and maintain in force an appropriate insurance policy for all workmen engaged for the job and submit copies of the policy and renewals to the Employer. The Bidder shall also pay extra wages for overtime in accordance with applicable law to the workers engaged by him.

n. The DAACPO shall pay wages at rates not less than those notified under the Minimum Wages Act (Central / State, as applicable to the site) from time to time.

o. The DAACPO shall pay bonus to eligible employees in accordance with the provisions of the Payment of Bonus Act and shall keep and maintain registers / records prescribed thereunder, producing them to the Employer / authorised officers on demand.

The Employer reserves the right to terminate the work order / Letter of Intent if the successful Contractor fails to comply with applicable labour laws as stated above, or any other labour laws applicable to his establishment from time to time. The Employer shall be entitled to deduct directly from amounts payable to the Bidder any sum the Employer is required to pay as principal employer on account of the Bidder's or his sub-contractor's default in respect of such liabilities.

TECHNICAL SPECIFICATIONS

All maintenance shall follow OEM manuals, OISD standards, PESO guidelines and DPA safety protocols. Pipeline thickness surveys, valve servicing and support NDT shall use calibrated instruments with valid NABL certificates.

Annexure - II

(Bill of Quantity)

NAME OF WORK: "Providing support to facilitate Operation and maintenance of Augmented Liquid Cargo Handling Capacity by Revamping of existing Pipeline network at Oil Jetty Area, Deendayal Port Authority, Kandla contract for period of 05 years"

Sr. No.	Detail Breakup	Qty.	Unit	Rate	Budgetary quote per month	Overall Budgetary cost for 60 months
1	Man power- As per the EOI and details attached as Annexure I	1	L.S.			
2	PIG Per Day	108	Nos.			
3	Chemicals (Caustic, detergent)	72 kg detergent, 360 kg NaOH per day	KG			
4	Electricity	2400	units/day			
5	Water	288	KL			
6	Miscellaneous (insurance, slop clearance, overhead, etc)	1	L.S.			

Note 1: The quantity indicated is only tentative and considered only for budgetary estimates, which may vary depending upon the vessel calls

Note 2: The above rate is inclusive of all taxes and duties, etc. except GST. The GST will be reimbursed as per GST Clause. GST to be paid separately as admissible under GST Act.

SIGNATURE OF THE CONTRACTOR