TENDER ENQUIRY
Procurement Department
Wah Nobel Chemicals limited

WNCL/Pur/ local/storagetank
September 28, 2026

Subject: **Quotation Required for Civil Works, Design, Fabrication, Supply, Internal Chemical-Resistant Lining, Erection & Insulation of 02 Nos. 200 m³ Mild Steel Vertical Storage Tanks for Formaldehyde Service**

Wah Nobel Chemicals Limited invites sealed quotations from experienced and qualified tank fabricators (hereinafter "the Bidder" / "the Contractor"), as per the below mentioned specifications.

Quotations shall be submitted by email on the Bidder's official letterhead, duly signed and stamped, on or before the bid closing date, i.e., **12th October 2026.**

Civil works (soil investigation, tank foundations, bund/secondary containment and associated works) are included in the Contractor's scope as per Section 8.

The specifications of the product are provided below.

Quantity of Tanks	02 (Two) Nos.	**Project Location**	Wah Nobel, Wah Cantt
Material of Construction	Mild Steel (Carbon Steel)	**Internal Protection**	Chemical-resistant lining
Bid Validity	60 days from closing date		

Subject	02 Nos. × 200 m³ MS Vertical Storage Tanks with Internal Chemical-Resistant Coating – Formaldehyde Service

1. INTRODUCTION AND SCOPE OF WORK

Wah Nobel Group of Companies (hereinafter "the Purchaser") invites sealed quotations from experienced and qualified tank fabricators (hereinafter "the Bidder" / "the Contractor") for the civil works, design, fabrication, supply, surface preparation, internal chemical-resistant lining, erection, testing and insulation of two (02) identical 200 m³ vertical storage tanks in Mild Steel

for formaldehyde service, complete with nozzles, bottom steam coil, fittings, level indicator, ladder and railing, as per the specifications in this document.

Civil works (soil investigation, tank foundations, bund/secondary containment and associated works) are included in the Contractor's scope as per Section 8.

2. DESIGN BASIS (PER TANK)

Stored Fluid	Formaldehyde solution (Formalin)
Nominal Capacity	200 m³ each
Nominal Dimensions	Ø 6.0 m (ID) × 7.5 m shell height (5 laps × 1500 mm)
Tank Type	Vertical, cylindrical, flat bottom, fixed roof, atmospheric
Design Code (Reference)	API 650 (latest edition) or equivalent, as applicable
Design Pressure	Atmospheric (vented)
Heating	Internal bottom steam coil (SS 304)
Plate Material	ASTM A36 / IS 2062 E250 BR or approved equivalent
Corrosion Allowance	1.5 mm (included in thicknesses below)
Nozzle Pipes / Flanges	ASTM A106 Gr. B / ASTM A105, flanges ASME B16.5 Class 150 RF
Internal Protection	Chemical-resistant lining suitable for formaldehyde (Section 6)
External Protection	Primer under insulation; paint system on exposed MS (Section 7)
Insulation	60 mm mineral wool with 28 SWG SS lagging
Foundation & Bund	One RCC foundation per tank and one common RCC bund – Contractor's scope (Section 8)

3. TANK SPECIFICATION – PLATE SCHEDULE

S.No	Component	Size (mm)	Thickness δ (mm)	Qty / Tank	Total Qty
1	Bottom plate	6000 × 6000	8	01	02
2	Shell – 1st lap (bottom)	18900 × 1500	8	01	02
3	Shell – 2nd lap	18900 × 1500	8	01	02
4	Shell – 3rd lap	18900 × 1500	6	01	02
5	Shell – 4th lap	18900 × 1500	6	01	02
6	Shell – 5th lap (top)	18900 × 1500	6	01	02
7	Top (roof) plate	6450 × 6450	6	01	02

Note: *Thicknesses listed are minimum values for MS including corrosion allowance. The Bidder shall verify all thicknesses by design calculation as per the design code and submit calculations with the bid. Sizes indicate developed/overall dimensions; plates shall be supplied in standard mill sizes and joined by welding.*

4. CONNECTIONS AND FITTINGS (PER TANK)

S.No	Service	Size (DN)	Qty / Tank	Total (2 Tanks)
1	Formaldehyde In	50	01	02
2	Formaldehyde Out	80	01	02
3	Vent	100	01	02
4	Manhole (shell & roof)	500	02	04
5	Reserve	50	02	04

S.No	Service	Size (DN)	Qty / Tank	Total (2 Tanks)
6	Steam Inlet	25	02	04
7	Condensate Outlet	25	02	04
8	Drain	80	01	02
9	Formaldehyde Circulation	50	01	02
10	Steam Coil in Bottom (SS 304)	50	120–150 ft	240–300 ft
11	Mineral Wool Insulation, 60 mm	—	As required	As required
12	SS Lagging, 28 SWG	—	As required	As required
13	Dry Float Dip (Level Indicator)	—	01 set	02 sets
14	Ladder & Railing (MS)	—	01 set	02 sets

Note: *All nozzle necks, flanges and manholes in product contact shall be internally lined, with the lining carried over the flange face, or alternatively supplied in SS 304 subject to Purchaser approval. The steam coil and its supports shall be SS 304; coil penetrations through the lined shell shall be properly sealed.*

5. INTERNAL CHEMICAL-RESISTANT COATING / LINING

The complete internal surface of each tank (bottom, shell, roof underside, nozzle bores, manholes and internal attachments) shall be lined with a chemical-resistant coating system suitable for continuous immersion in formaldehyde solution at the operating temperature.

Lining System	Epoxy Phenolic / Epoxy Novolac tank lining (or equivalent) certified by the manufacturer for formaldehyde immersion service
Weld & Edge Preparation	All internal welds ground smooth and continuous, spatter removed, sharp edges rounded (min. 3 mm radius) as per NACE SP0178

Surface Preparation	Abrasive blast cleaning to Sa 2½ (ISO 8501-1 / SSPC-SP10)
Surface Profile	50–75 µm (or as per coating manufacturer)
Environmental Conditions	Steel temperature min. 3 °C above dew point; RH below 85% during blasting and application
Coating Scheme	Primer + intermediate + finish coats (min. 2–3 coats) with stripe coats on all welds and edges
Total DFT	Minimum 300 µm (or as per manufacturer, whichever is higher)
Curing	Full cure (including any force/heat cure) as per manufacturer before service
DFT Inspection	As per SSPC-PA 2
Holiday Testing	100% spark / holiday test as per NACE SP0188; all defects repaired and re-tested
Adhesion Test	Pull-off test (ASTM D4541) on test panels / agreed locations
Applicator	Applicator approved by the coating manufacturer; manufacturer's technical representative to witness key stages
Sequence	Lining to be applied only after successful hydrostatic testing and Purchaser's release; no welding permitted after lining

6. EXTERNAL SURFACE PROTECTION

- External surfaces under insulation: blast cleaning to Sa 2½ and one coat of epoxy primer suitable for service under insulation (min. 75 µm DFT) before insulation is applied.
- Exposed MS items (ladder, railing, roof areas not insulated, supports): blast/power-tool cleaning, epoxy primer, and polyurethane finish coat (total min. 200 µm DFT). Colour shade as per Purchaser.

7. FABRICATION, WELDING, INSPECTION AND TESTING

a. Welding by GTAW (argon) and/or SMAW shall be carried out with qualified procedures and welders as per ASME Section IX and AWS D1.1.
b. Shell butt joints shall be full-penetration welds. Bottom plate joints shall be vacuum-box tested; shell-to-bottom joint shall be leak tested (vacuum box / penetrant or diesel test).
c. Spot radiography (RT) of shell butt welds as per the design code; dye-penetrant test (DPT) of nozzle, manhole and attachment welds.
d. Reinforcing pads shall be pneumatically tested through tell-tale holes.
e. Hydrostatic test of each tank filled to full shell height and held for minimum 24 hours, before internal lining. Water for testing to be clean.
f. Dimensional check (roundness, verticality, nozzle orientation) as per approved GA drawing.
g. Purchaser or its nominated inspector shall have free access to witness any stage of fabrication, coating and testing.

8. CIVIL AND FOUNDATION WORKS (CONTRACTOR'S SCOPE)

Civil works for both tanks are included in the Contractor's scope on a turnkey basis: soil investigation, foundation and bund design, construction, testing and all associated civil works. The civil design shall use the certified tank loads (empty, operating, hydrotest, wind and seismic) from the approved tank design. No civil construction shall start before the Purchaser approves the civil calculations and drawings.

8.1 Soil Investigation

- Geotechnical investigation by a Purchaser-approved laboratory: minimum 2 boreholes to not less than 10 m depth (or deeper if recommended) within the tank area.
- Report shall state soil profile, safe bearing capacity, groundwater level, expected total and differential settlement, and sulphate/chloride content of soil and groundwater.
- Any soil report already available with the Purchaser will be shared; its use shall be subject to Purchaser approval.

8.2 Tank Foundations (02 Nos.)

- One RCC ring-wall foundation (with compacted granular fill) or RCC raft foundation per tank, as justified by the soil report and design calculations.
- Design to ACI 318 and API 650 Annex B for tank empty, operating (formaldehyde SG approx. 1.1), hydrotest (full of water), wind and seismic loads as per the Building Code of Pakistan (Seismic Provisions).
- Top of foundation minimum 300 mm above finished ground level; tank pad crowned from centre to edge (approx. 1:100) with 75–100 mm sand-bitumen cushion under the tank bottom.

- Anchor bolts/chairs, where required by design, hot-dip galvanised and cast using a steel setting template.
- Tell-tale drains/weep holes at the tank periphery for leak detection under the bottom plate.
- Civil calculations and drawings shall be signed by a PEC-registered civil/structural engineer.

8.3 Coordination

- The Purchaser will provide site layout, survey benchmark, available information on existing underground utilities, and site access.
- If civil works are subcontracted, the Bidder shall name the civil subcontractor with relevant experience in the bid; the Contractor remains fully responsible for the civil works.

9. INCLUDED IN CONTRACTOR'S SCOPE

a. Design, detailed engineering and GA/fabrication drawings for approval.
b. Supply of all MS plates, structural sections, pipes, flanges, fittings, gaskets and fasteners.
c. Supply and installation of SS 304 bottom steam coil with supports.
d. Soil investigation, civil design and construction of RCC tank foundations, common RCC bund with sump pit, and all associated civil works as per Section 8.
e. Fabrication, transportation to site, erection and alignment of both tanks on the foundations constructed under Section 8.
f. Complete internal chemical-resistant lining and external painting as per Sections 6 and 7.
g. Dry float dip (level indicator) supply and installation.
h. Complete insulation work (60 mm mineral wool with 28 SWG SS lagging).
i. Ladder and railing (Mild Steel), painted, as per Purchaser requirements.
j. All consumables including welding electrodes, argon (GTAW) filler material, cutting and grinding discs, blasting abrasive and coating materials.
k. All tools, equipment, scaffolding, cranes/lifting gear, compressors and blasting equipment.
l. All NDT, hydrostatic testing, coating inspection and test reports.
m. Site cleaning and removal of scrap and debris after completion.

10. EXCLUDED FROM CONTRACTOR'S SCOPE / PURCHASER'S SCOPE

a. Water for hydrostatic testing at one point near the site.
b. External piping beyond the first flange of tank nozzles, unless otherwise specified.

11. DOCUMENTS TO BE SUBMITTED WITH QUOTATION

1. Itemized price breakdown as per the Price Schedule (Section 13).
2. Design calculations (shell, bottom and roof thickness) and preliminary GA drawing.

3. Coating system data sheets, chemical resistance chart / certificate for formaldehyde service, and coating application procedure.
4. Welding Procedure Specification (WPS), PQR and welder qualification records.
5. Inspection and Test Plan (ITP) covering fabrication, NDT, hydrostatic test and coating inspection.
6. Delivery / completion schedule from the date of Purchase Order.
7. Payment terms, warranty period and quotation validity.
8. Soil investigation methodology, preliminary foundation and bund design concept, civil method statement, and details of civil team/subcontractor with references.
9. Company profile, list of similar tanks / lining jobs executed (reference list) and valid NTN/STRN registration.

Documents to be submitted on supply / completion:

- Mill test certificates for all MS plates and pipe materials, and material certificates for SS 304 steam coil.
- Coating batch certificates, blasting and DFT records, holiday test and adhesion test reports.
- NDT reports, hydrostatic test certificates and as-built drawings.
- Soil investigation report, foundation/bund design calculations and drawings (PEC-registered engineer), concrete, compaction and reinforcement test reports, foundation level survey, bund water-tightness test and settlement records.

12. COMMERCIAL TERMS AND INSTRUCTIONS TO BIDDERS

Pricing	In Pak Rupees (PKR); taxes and duties to be shown separately
Bid Validity	Minimum 60 days from bid closing date
Completion Period	Bidder to quote (from date of PO)
Payment Terms	Bidder to propose; subject to Purchaser approval
Warranty	Minimum 12 months from commissioning for workmanship, materials and internal lining against defects; civil works against foundation settlement/cracking and bund leakage
Site Visit	Bidders are advised to visit the site before submitting the bid

Clarifications	Any queries shall be sent in writing to the issuing officer before the bid closing date
Deviations	All deviations from this specification shall be clearly listed in a separate deviation sheet; otherwise full compliance will be assumed
Safety	Contractor shall comply with Wah Nobel HSE rules, including confined-space entry, excavation safety and hot-work permits

1. **Special instruction**
1. **In all respect, the complete quotation should be submitted on or before the closing date and time 1400 hrs at PST, otherwise not accepted.**
   2. Submit your rate to ONLY our email address tenderenquiry@wahnobel.com.
   3. Commercial rates Must Not be copied to any other email from Wah Nobel else the offer may be rejected.
   4. Kindly submit only one quotation at a time. In case if more than one quotation is received from the same supplier, we will consider the lowest price offer only.
   5. Kindly mentioned complete Tender number / name in subject.
   6. For any technical query kindly contact on Email of the concerned procurement representative mentioned in the tender document.

A **GENERAL INSTRUCTIONS REGARDING PREPARATION OF QUOTATIONS**

2. **GENERAL INSTRUCTION REGARDING PREPARATION OF QUOTATIONS**

1.1 Quotations should be based on Wah Nobel Chemicals Delivered or Ex Work ..
1.2 Validity of offer should be clearly indicated in the quotation and it should be minimum 07 working days.
1.3 Delivery schedule should be clearly indicated in quotation.
1.4 Offer should include complete specification.
1.5 Also provide following information in your offer.

a) Signature of the Tender
b) Name of Signatory
c) Position/ Designation
d) Contact Detail Contact Details
e) NTN and sale Tax No.

3. INSPECTION

I. After receipt of goods at our store, inspection will be carried out by our QC Dept. In case of any major discrepancy/ deviation, material shall be rejected.

4. ACCEPTANCE OF OFFERS

3.1 The right to accept or reject any offer in full or in part. Without assigning any reason or to negotiate price without prejudice to the original offers hereby reserved.

5. **PAYMENT TERMS**

4.1 Payment will be made 30 DAY AFTER THE RECIPT OF MATERIAL AND Sales Tax invoice.

Yours faithfully,

Wah Nobel Chemicals Limited

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