



# ADDENDUM NO. 5

**CLARIFICATIONS ON THE TENDER FOR DESIGN, PROCUREMENT AND CONSTRUCTION OF NEW CRUDE OIL STORAGE TANK (TANK NO. S4) AT INDENI PETROLEUM REFINERY.  
TENDER NO. IND/W/002/20**

**ISSUED ON: 15.04.2020**

No.	Reference	Bidder's Clarification	Employer's Response
1	NCC Grade 1, Category ME or C or two for local bidders or equivalent for foreign bidders.		Equivalent registration will be acceptable
2	<b>Preliminary Program</b> The programme must be prepared on a project programme tool and the name of the programme tool is to be provided with the programme (i.e. Microsoft Project).	adoption of Oracle Primavera as programme tool.	Equivalent software will be acceptable
3	The method statement shall be no shorter than 2 A4 pages and <b>no longer than 4 A4</b> pages and should reflect the bidder's understanding of the objectives of the project (i.e. risks working in a live depot, procurement considerations for long lead items, the constructability of the works including the craneage, scaffolding, hydro-testing, lining and painting of the tank and the health, safety and environmental considerations of the works)		For evaluation purposes, a summary on 4 pages will be required. However a detailed methodology including Gantt chart will be required

	as well as the technical approach of the tenderer to identify and mitigate these potential risks.		
4	<p><b>3. TECHNICAL SCOPE OF WORKS</b></p> <p>The bidder shall also carry out all the related works that are not listed in this document, but required for completion of the entire work in accordance with API 650. The tank design and construction shall be done strictly in accordance with the latest editions of API 650 (12th Edition published in March 2013), API 653 (5th Edition published in November 2014). Further, the contractor shall comply with INDENI Pipe Specifications and INDENI Paint Specifications.</p>	Please provide INDENI Pipe Specifications and INDENI Paint Specifications.	refer to provided drawings, where inadequate bidders are encouraged to take site measurements
5	A geotechnical investigation has not been conducted for this project. The information on soil or geological conditions is not provided and therefore the Contractor must carry out a geotechnical survey which will be inclusive in the total project cost.	<p><u>Structure</u></p> <p>Up to now, due to the lack of geotechnical investigation report, whether the foundation design adopts foundation treatment or natural foundation?</p>	Bidder must provide optional solutions in line with API 650. The successful bidder will carry out geotechnical investigations
6	<p><b>ADDITIONAL CONSIDERATIONS</b></p> <p><b><u>Tank Mixers &amp; Electricals:</u></b></p> <ul style="list-style-type: none"> <li>• INDENI shall carry out termination of power supply cables into the INDENI system.</li> </ul>	<p><u>Electrical</u></p> <p>Please confirm whether the existing power supply can meet the requirement of the extension project. And is there any spare outgoing feeders available for this project or bidder need to add outgoing feeders (low voltage switchgear) in the distribution centre. And bidder understand the power cables from the power distribution centre to the tank mixers will be in the scope work of the bidder. Please confirm.</p>	Existing power supply will meet requirements. Contractor to provide and install all cabling up to termination point. This will be clear during mandatory site visit
7	<p><b>3. TECHNICAL SCOPE OF WORKS</b></p> <p>The bidder shall also carry out all the related works that are not listed in this document, but required for completion of the entire work in accordance with API 650. The tank design and construction shall be done strictly in accordance with the latest editions of API 650</p>	<p><u>Piping</u></p> <p>The valve and piping for the new tank need to be new or existed? If the valves and piping is also in the scope, please provide the P&amp;ID and existing interface.</p>	refer to provided drawings, where inadequate bidders are encouraged to take site measurements

	(12th Edition published in March 2013), API 653 (5th Edition published in November 2014). Further, the contractor shall comply with INDENI Pipe Specifications and INDENI Paint Specifications.		
8	-	<u>Firefighting</u> Please provide the fire water cooling density and duration time.	Query not clear. Use standard density of water
9	Section VI – Employer’s Requirements	<u>Corrosion Protection</u> Please confirm whether crude oil storage tank need cathodic protection or not and areas that need CP.	Bidder to suggest in line with API 650
10	Topographical Survey Map	<u>Survey</u> Please provide the existing as-built drawings for reference. The drawings should include the existing underground utilities and control point/bench marks.	Contractor to verify during mandatory site visit
11	The contractor shall include in the scope the following piping: Piping for steam lines from the battery limit (tie-in point) to the tank	<u>Thermotechnical</u> Please provide the steam lines parameters (including pipe material, size, pressure, temperature, insulation, etc.), and the distance from tie-in point to the tank, whether the condensate water is returned to tie-in point.	This was explained during site visit
12	<u>Specific Tasks Notes</u> A geotechnical investigation has not been conducted for this project. The information on soil or geological conditions is not provided and therefore the Contractor must carry out a geotechnical survey which will be inclusive in the total project cost.	<u>Geotechnical</u> Please provide the geotechnical reports and drawings of the three completed crude oil tanks.	Not available. Contractor to carry out of survey.

13	<p><b>3.PRELIMINARY PROGRAMME</b> The Bidder shall attach a Preliminary Programme, reflecting the proposed sequence, duration and milestones of execution of the various activities comprising the work for this contract. The programme shall be in accordance with the information provided in the scope of work and with all other relevant aspects of the tender.</p>	Whether to specify the contract duration by Employer?	Indicate execution duration for each of the proposed 3 phases
14	<p><b>ADDITIONAL CONSIDERATIONS</b> Welding On completion, magnetic particle crack detection shall be carried out where accessible. Magnetic Particle Examination Magnetic Particle Inspection shall be used on the following welds: <input type="checkbox"/> The shell to bottom plate weld on the inside and outside after each weld pass (alternatively dye penetrant crack detection may be used with the approval of INDENI). <input type="checkbox"/> Top surfaces of finished butt welds between annular ring plates that will be covered by the tank shell and bottom sketch plates. <input type="checkbox"/> Surfaces of first pass welds joining insert plates to their tank shells.</p>	Please confirm the range of magnetic particle crack detection/magnetic particle examination/magnetic particle inspection.	100% dye penetrant and 25% MPI
15	UPS load	Please confirm the interface of power supply for the new added UPS load. Whether the power supply for the new added UPS load is.	From existing UPS Points
16	Under PART 2 – Employer’s Requirements, page 5; the works has been broken into three phases which is indicated to be carried out on a yearly basis while the schedule of quantities on page 28 has not been broken down into these phases. Are we required to come up with our own format for the Bills of Quantities?		Bidders can come up with their own format provided Indeni's minimum requirements are met

17	Under PART 2 – Employer’s Requirements, page 5; the works has been broken into three phases which is indicated to be carried out on a yearly basis while under PART 3 - Particular Conditions of Contract GCC 1.1 (v) page 28, the Intended Completion Date for the whole of the Works is indicated as Two Hundred and Seventy (270) days from the start date. Kindly clarify on the duration		As clarified during site visit, the project will be spread over 3 years, one phase for for each year. Thus maximum total duration should be 3 years
18	Under PART 2 – Employer’s Requirements, page 6; it is indicated that Available Drawings for existing crude oil storage tanks will be provided for reference. No drawings for been provided on the tender document. Kindly advice on this for both tank and foundation drawings as indicated in the tender document		Reference drawings do not necessarily mean the new tank will be identical to existing tanks. As indicated during site visit, drawings can be viewed from our copy room.
19	Under PART 2 – Employer’s Requirements, page 7 item (v); it is indicated that construction of tank foundations will include piling work, Kindly clarify on this requirement as piling machine is also indicated as a requirement under essential equipment PART 2 – Employer’s Requirements, page 17		The successful bidder will be expected to carry out geotechnical survey and advise. The worst case cenario is that piling be done, however, results of the geotechnical report will determine.
20	<b>Section 3.1. ....All painting works to be done in accordance with INDENI Paint Specifications.....:</b> Clarify the painting specifications for all the parts including tank internal & external coatings and pipes coatings.		Paint specifications will be circulated to all those that participated in the site visit.
21	<b>Section 3 TECHNICAL SCOPE: .....The tank design and construction shall be done strictly in accordance with the latest editions of API 650 (12th Edition published in March 2013), API 653 (5th Edition published in November 2014)....</b> Kindly provide the purchaser defined design parameters e.g. corrosion allowance for shell, bottom and roof plates, Product specific gravity, design specific gravity , product storage temperature, operating temperature, Max design temperature etc		Tank Data sheets / nameplates can be viewed together with drawings at our copy room

22	The Contractor shall supply and install automatic tank gauging and overfill protection compliant with the existing system for other tanks at INDENI as a minimum.	Does it mean we are to supply the exact brand of the Tank gauging system being utilized at the facility or we can supply any other brand which could function in exactly the same way as the existing? What is the brand of the Tank Gauging system being used at the facility?	Bidders are to install the same brand. Current installation is Rosemount.
23		What is the estimated distance from the proposed location of the tank to be constructed and the control room (where the Tank gauging/Tank overfill protection HMI is installed)?	Approximately 300m. Bidders are encouraged to verify measurements during site visit.
24		Do we require to submit a SPECIFIC power of Attorney	Power of attorney is for this tender. Authorised person to sign on behalf of the Company.
25		Pipe sizes and battery limits required for steam supply, air supply, new inlet, suction, fire water and foam piping (fire water & foam pipes are specified as 3") Do We keep the pipes as specified?	Battery limit was shown to all bidders during site visit. Pipe sizes are shown on reference drawings to be accessed from procurement. Most of the foam piping for existing tanks is 3".
26		Will additional pump capacity be required assuming current pump capacity is adequate for 4 tanks ?	No additional pump required. Crude oil flows to plant by gravity.
27		Is there a make and model preference for the Automatic Tank Gauge (Drawing mentions Varec) and the Overfill Protection? Will the tank gauge and the OFP have to interface with existing systems.	Current system uses Emerson-Rosemount transmitters. The system was explained and shown during site visit. Indeni will prefer to maintain the current brand for compatibility reasons
28		Angus Rim Seal Equipment is specified. Is there a preference for the make of the Rim seal itself? Is a mechanical shoe seal or foam seal preferred?	Angus rim seal foam equipment has been specified as it will be installed on all the other refinery tanks

29	Geotechnical report	A geotechnical investigation has not been conducted for this project. The information on soil or geological conditions is not provided and therefore the Contractor must carry out a geotechnical survey which will be inclusive in the total project cost.” If contractor will have to do foundation design, then we will need some Geotech info for tendering.	Contractors are advised to consider the worst ground formation in the absence of geotechnical information.
30		Termination points for new tank from existing pipeline, electrical cables / boxes, airlines – need to know so that we can allow for enough pipes, cables ext.. in the tender	These were shown during site visit and bidders were taking measurements.
31		Air Supply ? where is this required	For sand blasting or pneumatic equipment if required for the project
32		Will the tank Gauges and the OFP have to interface with Existing systems?	Yes
33		Plant Lay out drawings for all 3 existing tanks	Not readily available
34		Civil and bund wall drawings ( We require more accurate measurements for the bund wall )	Not available, bidders encouraged to take site measurements
35		Piping drawings.	Refer to provided drawings, where inadequate bidders are encouraged to take site measurements
36		Design liquid level. Should be based on space required for the floating roof and seal.	Required net capacity is 20,000,000 litres
37		Product specific gravity	varies from dependent on crude oil processed from time to time, refer to data sheet provided
38		Design wind speed.	Information not available

39		Seismic parameters if required.	Information not readily available
40		Corrosion allowance – please confirm if we must use 1.5mm or else please specify.	Refer to API 650 requirements
41		Plate material specification (assumed to be EN 10025-2).	Refer to API 650 requirements
42		Nozzle schedule (optional).	Provided with site visit photos, contact Indeni Procurement
43	Program		Scope as per given guideline on phases, phase 1 in 2020, phase 2 in 2021, phase 3 in 2022. Total estimated duration is 270 days (e.g. 100 days for phase 1, 100 days for phase 2 and 70 days for phase 3) however this will be flexible as the whole project will be executed over a span of 3years.
44		Plant Lay out drawings for all 3 existing tanks,	Not readily available
45		Civil and bund wall drawings ( We require more accurate measurements for the bund wall	Not available, bidders encouraged to take site measurements

**CHARLES MWANZA**  
**PROCUREMENT & SUPPLY MANAGER**  
**FOR/MANAGING DIRECTOR**