

	<b>PETROVIETNAM OIL CORPORATION JOINT STOCK COMPANY</b>
<b>PROJECT</b>	<b>EXPANSION OF 40,000M<sup>3</sup> STORAGE CAPACITY AT PETEC HAI PHONG</b>
<b>PACKAGE</b>	<b>ENGINEERING, PROCUREMENT, CONSTRUCTION AND INSTALLATION</b>

**TECHNICAL REQUISITION DOCUMENT FOR**  
  
**TANK PLATE – BATCH 01**

A	19/Sep/25	Issued for procurement	PAD	PAD	PQP	VLT
Rev.	Date	Purpose	Prepared	Checked	Reviewed	Approved

<p>EPC CONTRACTOR</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div> <p>PTSC THANH HÓA THANH HÓA – ĐẠI DŨNG III – PHƯƠNG ANH CONSORTIUM</p>	<p><b>Document No:</b> <b>PETEC-DD-TRD-011.01</b></p>
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### REVISION RECORD SHEET

No	Content of Revision	Rev	Date (dd/mm/yyyy)
1	Issued for procurement	A	19/Sep/25

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## 1. INTRODUCTION

### 1.1. PROJECT BACKGROUND

Project name: Expansion of 40,000m<sup>3</sup> Storage Capacity at PETEC Hai Phong Petroleum Terminal Project

Client: PETEC HAI PHONG

Contractors: PTSC THANH HÓA – ĐẠI DŨNG III– PHƯƠNG ANH

The total expanded capacity is 40,000m<sup>3</sup> as follows:

- 01 tank 10,000m<sup>3</sup> tank (with float): containing RON95 – T33
- 03 tanks of 10,000m<sup>3</sup>: containing DO - T34, T35, T36
- 01 tanks of 1500m<sup>3</sup> containing fire water and auxiliary items....

### 1.2. PURPOSE

This document outlines the minimum technical requirements for the supply, testing, inspection, packing & transportation of Tank Plate (Batch 01).

The BIDDER/ MANUFACTURER shall ensure that all equipment and services supplied meet the requirements of this document, the Project Specifications and the Codes & Standards and Specifications referenced herein.

### 1.3. DEFINITIONS AND ABBREVIATIONS

<b>PROJECT</b>	EXPANSION OF 40,000M <sup>3</sup> STORAGE CAPACITY AT PETEC HAI PHONG
<b>CLIENT</b>	PETROVIETNAM OIL CORPORATION JOINT STOCK COMPANY
<b>PETEC</b>	PETROLEUM TRADING AND INVESTMENT JOINT STOCK COMPANY
<b>EPC CONTRACTOR</b>	CONSORTIUM: PTSC THANH HÓA – ĐẠI DŨNG III– PHƯƠNG ANH
<b>SUBCONTRACTOR</b>	THE CONTRACTOR SHALL CARRY OUT THE WORKS OF SUPPLY, TESTING, INSPECTION, PACKAGING, AND TRANSPORTATION OF TANK PLATES (BATCH 01)

	<b>EXPANSION OF 40,000M<sup>3</sup> STORAGE CAPACITY AT PETEC HAI PHONG</b>	
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<b>SCOPE OF WORKS</b>	SUPPLY, TESTING, INSPECTION, PACKAGING, AND TRANSPORTATION OF TANK PLATES (BATCH 01)
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## 2. SCOPE OF WORK

The Subcontractor’s scope of work includes, but is not limited to, the following:

- **Detailed Task Breakdown:**

<b>SCOPE OF WORK FOR SUPPLY, TESTING, INSPECTION TANK PLATE (BATCH 01)</b>				
NO.	DESCRIPTION OF WORK	PTSC TH	SUB CONTRACTOR	REMARK
1	Supply Steel plates as per Attachment #2.1 – Material Take-off (MTO) TRD-011.01-MTO Tank Plate Rev.A		R	
2	Transporting from manufacturing location to the point of delivery as stipulated in purchase contract document.		R	
3	Material Sampling & Material Testing Plan as per TCVN or equivalent ASTM	A	R	PTSC TH designate the testing laboratory
4	Documentation: MTC, C/O, C/Q, test reports, acceptance records... as per Attachment #4 Vendor Data Documents List		R	

General Notes: R: Responsible A: Assist.

- The Subcontractor shall provide all necessary manpower, equipment, tools, and facilities required for the supply, testing, inspection, packing, and transportation of Tank Plates.
- All supply, testing, and inspection shall comply with the requisition, datasheets, codes, standards, and specifications referenced in the Project Specifications.
- Subcontractor shall bear full responsibility and cost for repair or replacement in case of defects or non-conformities identified during supply, testing, or inspection.
- Subcontractor shall provide complete inspection and test records, certificates of compliance, material certificates, and other required documentation before delivery.
- Subcontractor shall coordinate with the Main Contractor/Employer and relevant inspection agencies (if any) for witnessing and approval of tests and inspections.

	<b>EXPANSION OF 40,000M<sup>3</sup> STORAGE CAPACITY AT PETEC HAI PHONG</b>	
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- Handover to the Employer all supply records, inspection certificates, test reports, packing lists, and transportation documents as required by contract.

### 3. WORK SCHEDULE

The tentative execution schedule shall follow the overall project schedule as specified in document “Attachment #5 – Project Schedule”.

The Contractor shall prepare a detailed execution schedule for each work item and include it in the proposal dossier, adjusted to the MTO Tank Plate.

### 4. TECHNICAL REQUIREMENTS

#### 4.1. BIDDER’S QUALIFICATION DOCUMENTS

- Business Registration Certificate.
- Relevant manufacturing/supply licenses (if applicable).
- Financial statements for the last 3 years.
- References of similar supply/supply contracts.
- Evidence of sufficient financial capability to execute the scope of work.

#### 4.2. TECHNICAL PROPOSAL DOCUMENTS

##### 4.2.1. S Technical Documents:

- Drawings and documents prepared based on project specifications and datasheets (if applicable, e.g. cutting plan according to MTO).
- List of applicable codes and standards for design, supply, inspection, and testing.
- Proposal of material grades, origin, and mill certificates for Tank Plate.

##### 4.2.2. Execution & Delivery Plan:

- Detailed supply, inspection, and delivery schedule.
- Quality Assurance/Quality Control (QA/QC) plan including Inspection & Test Plan.
- Packing, marking, and transportation plan.
- Manpower and equipment mobilization plan (for supply, inspection, and logistics).
- List of Subcontractors (if any).

#### 4.3. QUALITY REQUIREMENTS FOR MATERIALS

Tank plates shall comply with Vi approved equivalent international standards (ASTM A36, SS400 or equivalent grades commonly used for storage tank construction).

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Supplier must clearly declare: manufacturer name, origin, steel grade, applied standard, thickness, dimension tolerance, and plate marking.

All plates must be provided with valid Certificates of Origin (CO) and Certificates of Quality (CQ) issued by the manufacturer.

Each batch must be accompanied by Mill Test Certificate (MTC) indicating chemical composition, tensile strength, yield strength, elongation, impact test (if applicable), and heat number traceability.

Surface condition: free from cracks, lamination, rust pitting, heavy corrosion, or deformation.

Dimensional tolerances and flatness shall comply with the applicable standards and tank design requirements (API 650 or equivalent).

Each plate shall be clearly marked with steel grade, heat number, thickness, and plate number by stamping or paint marking. Bundle tags shall also be provided for traceability.

#### 4.4. INSPECTION AND ACCEPTANCE

Prior to delivery to site/storage, all tank plates shall be inspected for quantity, dimensions, thickness, flatness, surface condition, and documentation.

DA PTSC Thanh Hóa/Owner Representative reserves the right to:

- Conduct random sampling tests (chemical composition, tensile, impact, bend tests, ultrasonic lamination check) at a third-party accredited laboratory.
- Reject any batch that fails to meet specifications. Vendor shall replace non-conforming plates at no additional cost.

Acceptance documents shall include at minimum:

- CO & CQ from manufacturer.
- MTC for each batch/heat number.
- Visual inspection & dimension/thickness check report.
- Sampling test reports (if required).
- Packing List & Marking

#### 4.5. DESIGN LIFE, AVAILABILITY AND RELIABILITY

The design life of the facility and all associated equipment, components and systems is minimum 20 years.

All components which for practical, safety or cost-efficiency reasons are unable to meet the required design life shall be identified as soon as possible. Their expected service life

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shall be informed to Purchaser and provision made in the system design for maintenance to extend component life or routine change-out.

#### **4.6. PREPARATION FOR SHIPMENT**

Tank plates shall be prepared for export shipment and protected to provide maximum safety during transportation and long-term outdoor storage.

Plates shall be bundled or stacked on pallets/steel frames with adequate spacers and securely fastened to prevent sliding, bending, or damage.

Each bundle/shipment shall be clearly identified in accordance with Purchaser’s specification. As a minimum, marking shall include: Purchase Order number, item number, steel grade, plate size & thickness, heat number, net/gross weight, and delivery address.

Exposed edges shall be protected with suitable covers; surfaces shall be coated with rust-preventive oil or wrapped with plastic/tarpaulin to avoid corrosion.

Loose or cut plates shall be completely boxed and tagged with identification.

#### **4.7. GUARANTEE AND WARRANTY**

The Vendor shall have final and total responsibility for the design and performance of all material supplied under this document.

The Vendor shall replace and install without cost to the Purchaser any materials, supplies which fails under design conditions due to defects in material or workmanship if the defect is observed and/or such failure occurs within the guarantee/warranty period. Acceptance of this order will signify acceptance of all conditions of this guarantee.

The guarantee period shall be at least 24 months from the date of delivery whichever comes first.

#### **4.8. CONFLICTING REQUIREMENTS**

Vendor shall notify Purchaser of any conflicts between this TRD, specifications, the related data sheets, the Codes and Standards and any other specifications noted herein. Resolutions and/or interpretation precedence shall be obtained from Purchaser in writing before proceeding with the design/manufacture.

#### **4.9. DEVIATION LIST**

Vendor’s quotation shall fully comply with Purchaser’s requirements. Any exceptions, deviations, or alternatives must be clearly stated and listed in Attachment #6.3 – Request for Clarification Form, and submitted together with the Vendor’s quotation. Otherwise, all requirements and conditions of this Requisition shall be deemed accepted by the Vendor.

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## 5. INSPECTION AND TESTS

Inspection and tests shall be performed by the Vendor in accordance with:

- Applicable codes, specifications, and standards.
- Vendor’s standard plan & procedures as approved by Purchaser.

Purchaser/Owner Inspector reserves the right to be present during any stage of production at the steel mill or during inspection prior to delivery.

Refer to Attachment #6.2 – Inspection And Test Plan.

## 6. VENDOR DOCUMENT REQUIREMENT

The Bidder shall complete all technical information in” Attachment #3 Technical Bid Proposal”

In particular, Attachment #3 Technical Bid Proposal is mandatory. Failure to complete this form shall render the bid invalid.

Vendor must submit documents, certificates, and drawings as listed in Attachment #6.1 – Vendor Data Documents List (VDRL).

## 7. ATTACHED DOCUMENTS

STT	Attachment	Document No	Remark
1.	Attachment #1	Scope of work	
2.	Attachment #2	Technical Support Document	
3.	Attachment #3	Technical Bid Proposal	
4.	Attachment #4	Vendor Data Documents List	
5.	Attachment #5	Project Schedule	

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## 8. APPLICABLE DOCUMENTS/STANDARDS

STT	Document No	Title / Description
1.	TCVN 5370: 2009	Kho chứa dầu mỏ và sản phẩm dầu mỏ
2.	API 650	Welded Steel Tank for Oil Storage
3.	API 2000	Venting Atmospheric and Low-pressure Storage Tanks
4.	ASME section II	Material Specification.
5.	ASME section IX	Welding and Brazing Qualifications.
6.	ASME section V	Non-destructive Testing.
7.	ASTM Standards	American Society for Testing Materials

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**ATTACHMENT #1  
SCOPE OF WORK**

- *Att #1.1 Scope of work.*

## SCOPE OF WORK FOR SUPPLY, TESTING, INSPECTION TANK PLATE (BATCH 01)

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2	Transporting from manufacturing location to the point of delivery as stipulated in purchase contract document.		R	
3	Material Sampling & Material Testing Plan as per TCVN or equivalent ASTM	A	R	PTSC TH designate the testing laboratory
4	Documentation: MTC, C/O, C/Q, test reports, acceptance records... as per Attachment #4 Vendor Data Documents List		R	

**General Notes:**

R: Responsible    A: Assist.

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**ATTACHMENT #2**

**TECHNICAL SUPPORT DOCUMENT**

- *Att #2.1 Mto Tank Plate Batch 01*
- *Att #2.2 Drawings*



## MATERIAL TAKE OFF TANK PLATE

Doc No.	: TRD-011.01
Rev.	: A
Date.	: 18-Sep-2025

No.	Thick. (mm)	Witdh (mm)	Length (mm)	Material	Sub total	Spare	Qty for Purchase	Unit	Unit weight (kg)	Total weight (kg)	Remark
1	16	2000	9000	A36	36		36	Sheet	2,260.8	81,388.8	
2	16	2000	6000	A36	4		4	Sheet	1,507.2	6,028.8	
3	14	2000	9000	A36	72		72	Sheet	1,978.2	142,430.4	
4	14	2000	6000	A36	8		8	Sheet	1,318.8	10,550.4	
5	12	2000	9000	A36	36		36	Sheet	1,695.6	61,041.6	
6	12	2000	6000	A36	4		4	Sheet	1,130.4	4,521.6	
7	10	2000	9000	A36	80		80	Sheet	1,413.0	113,040.0	
8	10	2000	7000	A36	7		7	Sheet	1,099.0	7,693.0	
9	10	2000	6000	A36	4		4	Sheet	942.0	3,768.0	
10	8	2000	9000	A36	188		188	Sheet	1,130.4	212,515.2	
11	8	2000	8000	A36	1		1	Sheet	1,004.8	1,004.8	
12	8	2000	7000	A36	5		5	Sheet	879.2	4,396.0	
13	8	2000	6000	A36	8		8	Sheet	753.6	6,028.8	
14	6	2000	9000	A36	248		248	Sheet	847.8	210,254.4	
15	6	2000	7000	A36	6		6	Sheet	659.4	3,956.4	
16	6	2000	6000	A36	8		8	Sheet	565.2	4,521.6	
TOTAL					715	0	715			873,139.8	

Note:

1. Document requirement
  - a. Material certification: EN 10204 Type 3.1
  - b. Certification of Origin
  - c. Test report for additional testing where applicable
2. Plate dimension and thickness tolerance shall comply with ASTM A20M. Permitted variation under specified thickness is 0.3 mm

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**ATTACHMENT #3  
TECHNICAL BID PROPOSAL**

- *Att #3.1 Technical Bid Requirement forms*

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**ATTACHMENT #4**

**VENDOR DATA REQUIREMENT LIST (VDRL)**

- *Att #4.1 – Vendor Data Requirement List (VDRL)*
- *Att #4.2 – Inspection And Test Plan*
- *Att #4.3 Request for Clarification Form.doc*

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**ATTACHMENT #5  
PROJECT SCHEDULE**

- *Att #5.1 Project Schedule*